

Woodland Park Euclid Improvements Project EIR

DRAFT EIR APPENDICES | JUNE 2021

SCH # 2020040270



Kimley»Horn

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Woodland Park Euclid Improvements Project EIR

Draft EIR Appendices

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Appendix A

NOP and NOP Response Letters

Notice of Preparation of an Environmental Impact Report for the Woodland Park Euclid Improvements Project and Notice of Public Scoping Meeting

DATE: April 22, 2020

TO: State Clearinghouse, Responsible and Trustee Agencies and Other Interested Parties

FROM: City of East Palo Alto (Lead Agency)
Community and Economic Development Department
1960 Tate Street
East Palo Alto, CA 94303

Re: Notice of Preparation of an Environmental Impact Report and Notice of Public Scoping Meeting for the Woodland Park Euclid Improvements Project

The City of East Palo Alto, as the Lead Agency under the California Environmental Quality Act (CEQA), is preparing an Environmental Impact Report (EIR) for the proposed Woodland Park Euclid Improvements Project. The project, its location, and potential environmental effects are described below.

The City of East Palo Alto is soliciting input from responsible and trustee agencies, the State Office of Planning and Research, and is also extending the early consultation process to members of the public, organizations, and any other interested parties as to the scope and content of the information to be included and analyzed in the project's EIR. Agencies should comment on the elements of the environmental information that are relevant to their statutory responsibilities in connection with the proposed project. The EIR will serve as the environmental document for responsible and trustee agencies when considering any discretionary approvals or permits related to the proposed project.

This NOP will be circulated for a 30-day period, from April 22 to May 22, 2020. Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than the close of the 30-day NOP review period. The comment period closes at 5:00 pm on May 22, 2020. Please send your written/typed comments (including a name and contact information) to Art Henriques, Contract Project Planner, at the physical address or email address shown below. Public agencies providing comments are requested to include a contact person for the agency.

Lead Agency Contact

Art Henriques, Contract Project Planner
City of East Palo Alto
Community and Economic Development Department
1960 Tate Street
East Palo Alto, CA 94303
Email: ahenriques@cityofepa.org

Project Location

The 3.92-acre project site is on East Palo Alto's west side, located northwest of University Avenue, adjacent to U.S. 101 and northwest of University Circle. The project is within the city limits of East Palo Alto, San Mateo County, CA.

The project area consists of a grouping of 14 individual parcels/addresses. The project parcels are bounded by West Bayshore Road, Manhattan Avenue, Euclid Avenue and O'Connor Street.

Project addresses and associated parcel numbers are:

Physical Addresses	**Assessor's Parcel #:**
501 O'Connor Street	063-282-010
2012 Euclid Avenue	063-282-020
2032 Euclid Avenue	063-282-030
2036 Euclid Avenue	063-282-040
2040/2042 Euclid Avenue	063-282-050
2044 Euclid Avenue	063-282-060
2054 Euclid Avenue	063-282-070
2033 Manhattan Avenue	063-282-080
2001 Manhattan Avenue	063-282-090
2021 Euclid Avenue	063-281-020
2025 Euclid Avenue	063-281-030
2031 Euclid Avenue	063-281-040
2043 Euclid Avenue	063-281-100
2041 Euclid Avenue/420 E O'Keefe Street	063-281-110

Existing Conditions

The subject properties consist of 15 apartment buildings, single family homes, and related structures with a total of 161 existing residential units. The majority of the existing buildings are approximately 50 years old, with a few older structures that are up to 100 years old. Existing structures range from 1 to 4 stories in height and are reaching the end of their useful construction life. The apartment buildings are part of the larger Woodland Park community, consisting mostly of multi-family residential uses in an established residential neighborhood. Surrounding land uses are also primarily residential, with some local serving neighborhood commercial. The Four Seasons/University Circle, complex, a mix of office and hotel uses, is located one block to the east.

Project Description Summary

The project applicant, Sand Hill Property Company, is requesting a General Plan and zoning amendment that would create a Neighborhood Center Residential Overlay (NCO). The NCO designation would establish new development standards for the property that would be applied to the proposed project. The NCO would allow for neighborhood-serving commercial and community uses on the ground floor, additional housing units, and increased building heights.

With the NCO overlay, the project would demolish and remove the existing 161 units and replace all existing structures with two new buildings supporting 605 residential units ranging in size from studios to 2 bedrooms (two of the units would be 3-4 bedrooms). The residential buildings would be up to 13 stories in height, although the building heights vary considerably in the design.

The following table summarizes the main components of the proposed project:

	Existing	**Proposed**
Area	3.9 acres	3.9 acres
Number of Buildings	15	2
Total Residential Units	161	605
Height	1 to 4 stories	Ranging from 5 to a maximum of 13 stories (120 feet to roof level of tallest structure)
Off-street Parking Stalls	155	625 (multi-level garage)
On-street Parking Stalls	52	71
Neighborhood-Serving Retail	None	Up to 5,000 square feet
Community Space	None	Up to 3,000 square feet
Public Open Space and Park	None	+38,600 square feet (0.9 acres) including neighborhood park

The project also includes an affordable housing plan, tenant relocation plan, and fiscal impact analysis, which are critical components of the project, but not necessarily subject to environmental review.

Probable Environmental Effects

The City of East Palo Alto will be preparing an environmental impact report (EIR) that evaluates potential environmental impact areas consistent with CEQA Statues and Guidelines. An initial study is not required to determine that an EIR will be prepared, and as such, an initial study was not prepared for the proposed project. The EIR will discuss potential environmental impacts of the proposed project, including potential construction and operational effects. The City has identified several environmental areas where impacts are most likely to occur. These impact areas include:

- Aesthetics (including visual character)
- Air Quality (including health risk assessment)
- Biological Resources (tree removal/replacement)
- Cultural, Tribal and Historic Resources
- Energy Demands
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning (including consistency with Westside Area Plan)
- Noise and Vibration
- Population and Housing
- Public Services and Recreation
- Transportation, Mobility and Circulation (including VMT)
- Utilities and Service Systems (including water supply and demand/system capacity)

The EIR will also evaluate a range of feasible alternatives to the project, as well as other required discussions including: (a) any significant environmental effects that cannot be avoided if the project is implemented; (b) any significant irreversible and irretrievable commitments to resources; (c) growth-inducing impacts of the proposed project; (d) effects found not to be significant; and (e) cumulative impacts.

A digital copy of this NOP and additional detail about the project can be viewed at:
http://www.ci.east-palo-alto.ca.us/index.aspx?NID=663

Public Scoping Meeting

Due to local and statewide shelter in place directives resulting from the COVID-19 pandemic, the City of East Palo Alto will hold an online EIR public scoping session/workshop consistent with Public Resources Code §§ 21080.4(b) and 21083.9 in lieu of a public gathering. This scoping session will be an agenda item of a scheduled study session of the Planning Commission. Members of the public and public agencies are invited to view and participate in this virtual gathering to provide comments regarding the scope and content of the EIR. The Planning Commission meeting will be held **Monday, May 18, 2020 at 7:00 pm** and accessed via the following meeting link: https://www.ci.east-palo-alto.ca.us/Index.aspx?NID=122

Members of the public may provide comments by email to ahenriques@cityofepa.org. Emailed comments should include the specific Planning Commission study session agenda item on which you are commenting. Comments can be included in the Planning Commissioners' packets. If you wish to have your comments read to the Commission please so indicate. The length of the emailed comments should be within the three minutes customarily allowed for verbal comments, which is approximately 200-250 words. To ensure that your comment is received and read to the Planning Commission for the appropriate study session agenda item, please submit your email no later than 5:00 p.m. on May 18, 2020. The City will make every effort to read emails received after that time but cannot guarantee that such emails will be read into the record. Any emails received after the 5:00 p.m. deadline that are not read into the record will be provided to the Planning Commission after the meeting. Members of the public may also view the meeting by tuning to Channel 29; going to https://midpenmedia.org/; and going to the City Facebook page at https://www.facebook.com/CityOfEastPaloAlto.

Join from a PC, Mac, iPad, iPhone or Android device. Please click this URL to join: https://zoom.us/s/264253019. Description: Planning Commission Meeting

Or join by phone:
Dial(for higher quality, dial a number based on your current location):
US: +1 669 900 6833 or +1 346 248 7799 or +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099 or +1 253 215 8782
Webinar ID: 264 253 019

ALL INTERESTED PARTIES ARE INVITED TO SUMIT WRITTEN COMMENTS ON THE SCOPE OF THE EIR TO ASSIST IN IDENTIFYING ISSUES TO BE ADDRESSED.

For additional information, please contact Art Henriques, Contract Project Planner, at ahenriques@cityofepa.org, or (650) 853-3121.

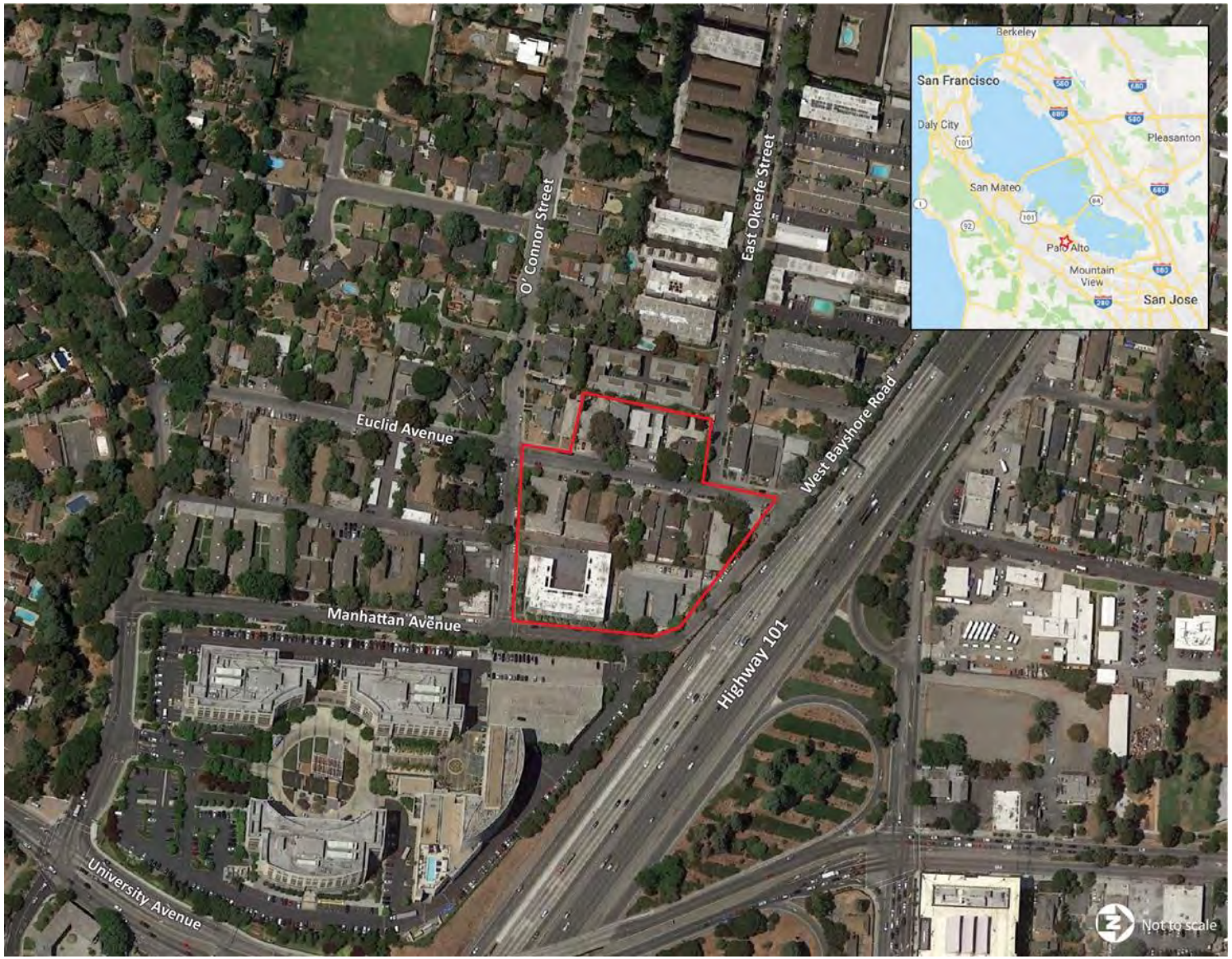
Lead Agency Authorization

Date: April 22, 2020

Name: Patrick Heisinger

Title: Assistant City Manager

Figure 1: Project Location



Source: Google Earth, 2020

Figure 2: Site Plan



Source: David Baker Architects, 2019

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

May 15, 2020

Mr. Art Henriques
City of East Palo Alto
Community and Economic Development Department
1960 Tate Street
East Palo Alto, CA 94303
ahenriques@cityofepa.org

Subject: Woodland Park Euclid Improvements Project, Notice of Preparation, SCH #2020040270, City of East Palo Alto, San Mateo County

Dear Mr. Henriques:

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) prepared by the City of East Palo Alto for the proposed Woodland Park Euclid Improvements Project (Project) located in the City of East Palo Alto, County of San Mateo. CDFW is submitting comments on the NOP regarding potential impacts to biological resources associated with the proposed Project.

CDFW is a Trustee Agency with responsibility under the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et seq.) pursuant to CEQA Guidelines section 15386 for commenting on projects that could impact fish, plant, and wildlife resources. CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as permits issued under the California Endangered Species Act (CESA), the Native Plant Protection Act, the Lake and Streambed Alteration (LSA) Program, and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources.

PROJECT DESCRIPTION AND LOCATION

The proposed Project is located at the intersection of Manhattan Avenue and West Bayshore Road, adjacent to U.S. 101 and northwest of University Circle, in the City of East Palo Alto, San Mateo County.

The proposed Project will replace 15 buildings containing 161 apartment units, with two buildings containing 605 residential units, a parking garage, and approximately 5,000 square feet of commercial and open space.

The CEQA Guidelines (§§15124 and 15378) require that the draft Environmental Impact Report (EIR) incorporate a full Project description, including reasonably foreseeable future phases of the Project, and require that it contain sufficient information to evaluate and review the Project's environmental impact. Please include complete descriptions of all Project features and phasing.

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COMMENTS

COMMENT 1: Artificial lighting

Issue: The Project could increase artificial lighting. Artificial lighting often results in light pollution, which has the potential to significantly and adversely affect fish and wildlife.

Evidence the impact would be significant: Night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., bird song; Miller 2006, determining when to begin foraging (Stone et al. 2009), behavior thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004).

Recommendations to minimize significant impacts: CDFW recommends eliminating all non-essential artificial lighting from the Project. If artificial outdoor lighting is necessary, CDFW recommends that lighting be shielded, cast downward, and does not spill over onto other properties or upwards into the night sky (see the International Dark-Sky Association standards at http://darksky.org/).

COMMENT 2: Nesting Birds

Issue: Project construction could result in disturbance of nesting birds.

Evidence the impact would be significant: Noise can impact bird behavior by masking signals used for bird communication, mating, and hunting (Bottalico et al. 2015). Birds hearing can also be damaged from noise and impair the ability of birds to find or attract a mate and prevent parents from hearing calling young (Ortega 2012).

Recommendations to minimize significant impacts: If ground-disturbing or vegetation-disturbing activities must occur during the breeding season (February through early-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act 1918 or Fish and Game Codes.

To evaluate and avoid for potential impacts to nesting bird species, CDFW recommends incorporating the following mitigation measures into the Project's draft EIR, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 1: Nesting Bird Surveys
CDFW recommends that a qualified avian biologist conduct pre-activity surveys for active nests no more than seven (7) days prior to the start of ground or vegetation disturbance and every 14 days during Project activities to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the Project site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. Prior to initiation of ground or vegetation disturbance, CDFW recommends that a qualified avian biologist conduct a survey to establish a behavioral baseline of all identified nests. Once Project activities begins, CDFW recommends having the qualified biologist continuously monitor

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nests, during project activities, to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends stopping the work causing that change until a qualified avian biologist can identify that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival.

Recommended Mitigation Measure 2: Nesting Bird Buffers
If continuous monitoring of active nests by a qualified avian biologist, during Project activities, is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active passerine bird species nests, a 1,000 feet no-disturbance buffer around active small raptors (e.g., accipiters) nests, and 2,000 feet no-disturbance buffer around active larger raptors (e.g., buteos) nests. These buffers are advised to remain in place until the breeding season has ended or until a qualified avian biologist has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the Project site would be concealed from a nest site by topography. CDFW recommends that a qualified avian biologist advise and support any variance from these buffers.

REGULATORY REQUIREMENTS

California Endangered Species Act
Please be advised that a CESA Permit must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA Permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (CEQA section 21001(c), 21083, and CEQA Guidelines section 15380, 15064, 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code section 2080.

Lake and Streambed Alteration Program
Notification is required, pursuant to CDFW's LSA Program (Fish and Game Code section 1600 et. seq.) for any Project-related activities that will substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are subject to notification requirements. CDFW, as a Responsible Agency under CEQA, will consider the CEQA document for the Project. CDFW may not execute the final LSA Agreement until it has complied with CEQA (Public Resources Code section 21000 et seq.) as the responsible agency.

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FILING FEES

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish and Game Code section 711.4; Pub. Resources Code, section 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

Thank you for the opportunity to comment on the Project's NOP. If you have any questions regarding this letter, please contact Ms. Monica Oey, Environmental Scientist at (707) 428-2088 or monica.oey@wildlife.ca.gov; or Ms. Randi Adai, Senior Environmental Scientist (Supervisory), at (707) 576-2786 or randi.adair@wildlife.ca.gov

Sincerely,

DocuSigned by:
Gregg Erickson
BE74D4C93C604EA...

Gregg Erickson
Regional Manager
Bay Delta Region

cc: State Clearinghouse #2020040270

REFRENCES

Beiswenger, R. E. 1977. Diet patterns of aggregative behavior in tadpoles of *Bufo americanus*, in relation to light and temperature. Ecology 58:98–108.

Bottalico, Pasquale & Spoglianti, Dorina & Bertetti, Carlo & Falossi, Marco. 2015. Effect of noise generated by construction sites on birds, paper presented at Internoise 2015, International Congress and Exposition on Noise Control Engineering

Longcore, T., and C. Rich. 2004. Ecological light pollution - Review. Frontiers in Ecology and the Environment 2:191–198.

Miller, M. W. 2006. Apparent effects of light pollution on singing behavior of American robins. The Condor 108:130–139.

Ortega, C. P. 2012. Chapter 2: Effects of noise pollution on birds: A brief review of our knowledge. Ornithological Monographs 47: 6-22

Stone, E. L., G. Jones, and S. Harris. 2009. Street lighting disturbs commuting bats. Current Biology 19:1123–1127. Elsevier Ltd.

Pacific Gas and Electric Company

Plan Review Team
Land Management

PGEPlanReview@pge.com

6111 Bollinger Canyon Road 3370A
San Ramon, CA 94583

May 15, 2020

Art Henriques
City of Palo Alto
1960 Tate St
East Palo Alto, CA 94303

Ref: Gas and Electric Transmission and Distribution

Dear Art Henriques,

Thank you for submitting the Woodland Park Euclid Improvements Project plans for our review. PG&E will review the submitted plans in relationship to any existing Gas and Electric facilities within the project area. If the proposed project is adjacent/or within PG&E owned property and/or easements, we will be working with you to ensure compatible uses and activities near our facilities.

Attached you will find information and requirements as it relates to Gas facilities (Attachment 1) and Electric facilities (Attachment 2). Please review these in detail, as it is critical to ensure your safety and to protect PG&E's facilities and its existing rights.

Below is additional information for your review:

1. This plan review process does not replace the application process for PG&E gas or electric service your project may require. For these requests, please continue to work with PG&E Service Planning: https://www.pge.com/en_US/business/services/building-and-renovation/overview/overview.page.

2. If the project being submitted is part of a larger project, please include the entire scope of your project, and not just a portion of it. PG&E's facilities are to be incorporated within any CEQA document. PG&E needs to verify that the CEQA document will identify any required future PG&E services.

3. An engineering deposit may be required to review plans for a project depending on the size, scope, and location of the project and as it relates to any rearrangement or new installation of PG&E facilities.

Any proposed uses within the PG&E fee strip and/or easement, may include a California Public Utility Commission (CPUC) Section 851 filing. This requires the CPUC to render approval for a conveyance of rights for specific uses on PG&E's fee strip or easement. PG&E will advise if the necessity to incorporate a CPUC Section 851filing is required.

This letter does not constitute PG&E's consent to use any portion of its easement for any purpose not previously conveyed. PG&E will provide a project specific response as required.

Sincerely,

Plan Review Team
Land Management

Pacific Gas and Electric Company

Attachment 1 – Gas Facilities

There could be gas transmission pipelines in this area which would be considered critical facilities for PG&E and a high priority subsurface installation under California law. Care must be taken to ensure safety and accessibility. So, please ensure that if PG&E approves work near gas transmission pipelines it is done in adherence with the below stipulations. Additionally, the following link provides additional information regarding legal requirements under California excavation laws: https://www.usanorth811.org/images/pdfs/CA-LAW-2018.pdf

1. Standby Inspection: A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline. This includes all grading, trenching, substructure depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection can be coordinated through the Underground Service Alert (USA) service at 811. A minimum notice of 48 hours is required. Ensure the USA markings and notifications are maintained throughout the duration of your work.

2. Access: At any time, PG&E may need to access, excavate, and perform work on the gas pipeline. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice. Any plans to cut temporary slopes exceeding a 1:4 grade within 10 feet of a gas transmission pipeline need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

3. Wheel Loads: To prevent damage to the buried gas pipeline, there are weight limits that must be enforced whenever any equipment gets within 10 feet of traversing the pipe.

Ensure a list of the axle weights of all equipment being used is available for PG&E's Standby Inspector. To confirm the depth of cover, the pipeline may need to be potholed by hand in a few areas.

Due to the complex variability of tracked equipment, vibratory compaction equipment, and cranes, PG&E must evaluate those items on a case-by-case basis prior to use over the gas pipeline (provide a list of any proposed equipment of this type noting model numbers and specific attachments).

No equipment may be set up over the gas pipeline while operating. Ensure crane outriggers are at least 10 feet from the centerline of the gas pipeline. Transport trucks must not be parked over the gas pipeline while being loaded or unloaded.

4. Grading: PG&E requires a minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations. The graded surface cannot exceed a cross slope of 1:4.

5. Excavating: Any digging within 2 feet of a gas pipeline must be dug by hand. Note that while the minimum clearance is only 12 inches, any excavation work within 24 inches of the edge of a pipeline must be done with hand tools. So to avoid having to dig a trench entirely with hand tools, the edge of the trench must be over 24 inches away. (Doing the math for a 24 inch

wide trench being dug along a 36 inch pipeline, the centerline of the trench would need to be at least 54 inches [24/2 + 24 + 36/2 = 54] away, or be entirely dug by hand.)

Water jetting to assist vacuum excavating must be limited to 1000 psig and directed at a 40° angle to the pipe. All pile driving must be kept a minimum of 3 feet away.

Any plans to expose and support a PG&E gas transmission pipeline across an open excavation need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

6. Boring/Trenchless Installations: PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline. There are stringent criteria to pothole the gas transmission facility at regular intervals for all parallel bore installations.

For bore paths that cross gas transmission pipelines perpendicularly, the pipeline must be potholed a minimum of 2 feet in the horizontal direction of the bore path and a minimum of 12 inches in the vertical direction from the bottom of the pipe with minimum clearances measured from the edge of the pipe in both directions. Standby personnel must watch the locator trace (and every ream pass) the path of the bore as it approaches the pipeline and visually monitor the pothole (with the exposed transmission pipe) as the bore traverses the pipeline to ensure adequate clearance with the pipeline. The pothole width must account for the inaccuracy of the locating equipment.

7. Substructures: All utility crossings of a gas pipeline should be made as close to perpendicular as feasible (90° +/- 15°). All utility lines crossing the gas pipeline must have a minimum of 12 inches of separation from the gas pipeline. Parallel utilities, pole bases, water line ‘kicker blocks’, storm drain inlets, water meters, valves, back pressure devices or other utility substructures are not allowed in the PG&E gas pipeline easement.

If previously retired PG&E facilities are in conflict with proposed substructures, PG&E must verify they are safe prior to removal. This includes verification testing of the contents of the facilities, as well as environmental testing of the coating and internal surfaces. Timelines for PG&E completion of this verification will vary depending on the type and location of facilities in conflict.

8. Structures: No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E’s ability to access its facilities.

9. Fencing: Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16 foot wide gate for vehicular access. Gates will be secured with PG&E corporation locks.

10. Landscaping: Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems. No trees, shrubs, brush, vines, and other vegetation may be planted within the easement area. Only those plants, ground covers, grasses, flowers, and low-growing plants that grow unsupported to a maximum of four feet (4’) in height at maturity may be planted within the easement area.

11. Cathodic Protection: PG&E pipelines are protected from corrosion with an “Impressed Current” cathodic protection system. Any proposed facilities, such as metal conduit, pipes, service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering.

12. Pipeline Marker Signs: PG&E needs to maintain pipeline marker signs for gas transmission pipelines in order to ensure public awareness of the presence of the pipelines. With prior written approval from PG&E Pipeline Services, an existing PG&E pipeline marker sign that is in direct conflict with proposed developments may be temporarily relocated to accommodate construction work. The pipeline marker must be moved back once construction is complete.

13. PG&E is also the provider of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E’s facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.

Attachment 2 – Electric Facilities

It is PG&E's policy to permit certain uses on a case by case basis within its electric transmission fee strip(s) and/or easement(s) provided such uses and manner in which they are exercised, will not interfere with PG&E's rights or endanger its facilities. Some examples/restrictions are as follows:

1. Buildings and Other Structures: No buildings or other structures including the foot print and eave of any buildings, swimming pools, wells or similar structures will be permitted within fee strip(s) and/or easement(s) areas. PG&E's transmission easement shall be designated on subdivision/parcel maps as "**RESTRICTED USE AREA – NO BUILDING."**

2. Grading: Cuts, trenches or excavations may not be made within 25 feet of our towers. Developers must submit grading plans and site development plans (including geotechnical reports if applicable), signed and dated, for PG&E's review. PG&E engineers must review grade changes in the vicinity of our towers. No fills will be allowed which would impair ground-to-conductor clearances. Towers shall not be left on mounds without adequate road access to base of tower or structure.

3. Fences: Walls, fences, and other structures must be installed at locations that do not affect the safe operation of PG&'s facilities. Heavy equipment access to our facilities must be maintained at all times. Metal fences are to be grounded to PG&E specifications. No wall, fence or other like structure is to be installed within 10 feet of tower footings and unrestricted access must be maintained from a tower structure to the nearest street. Walls, fences and other structures proposed along or within the fee strip(s) and/or easement(s) will require PG&E review; submit plans to PG&E Centralized Review Team for review and comment.

4. Landscaping: Vegetation may be allowed; subject to review of plans. On overhead electric transmission fee strip(s) and/or easement(s), trees and shrubs are limited to those varieties that do not exceed 15 feet in height at maturity. PG&E must have access to its facilities at all times, including access by heavy equipment. No planting is to occur within the footprint of the tower legs. Greenbelts are encouraged.

5. Reservoirs, Sumps, Drainage Basins, and Ponds: Prohibited within PG&E's fee strip(s) and/or easement(s) for electric transmission lines.

6. Automobile Parking: Short term parking of movable passenger vehicles and light trucks (pickups, vans, etc.) is allowed. The lighting within these parking areas will need to be reviewed by PG&E; approval will be on a case by case basis. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications. Blocked-up vehicles are not allowed. Carports, canopies, or awnings are not allowed.

7. Storage of Flammable, Explosive or Corrosive Materials: There shall be no storage of fuel or combustibles and no fueling of vehicles within PG&E's easement. No trash bins or incinerators are allowed.

8. Streets and Roads: Access to facilities must be maintained at all times. Street lights may be allowed in the fee strip(s) and/or easement(s) but in all cases must be reviewed by PG&E for proper clearance. Roads and utilities should cross the transmission easement as nearly at right angles as possible. Road intersections will not be allowed within the transmission easement.

9. Pipelines: Pipelines may be allowed provided crossings are held to a minimum and to be as nearly perpendicular as possible. Pipelines within 25 feet of PG&E structures require review by PG&E. Sprinklers systems may be allowed; subject to review. Leach fields and septic tanks are not allowed. Construction plans must be submitted to PG&E for review and approval prior to the commencement of any construction.

10. Signs: Signs are not allowed except in rare cases subject to individual review by PG&E.

11. Recreation Areas: Playgrounds, parks, tennis courts, basketball courts, barbecue and light trucks (pickups, vans, etc.) may be allowed; subject to review of plans. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications.

12. Construction Activity: Since construction activity will take place near PG&E's overhead electric lines, please be advised it is the contractor's responsibility to be aware of, and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety (https://www.dir.ca.gov/Title8/sb5g2.html), as well as any other safety regulations. Contractors shall comply with California Public Utilities Commission General Order 95 (http://www.cpuc.ca.gov/gos/GO95/go_95_startup_page.html) and all other safety rules. No construction may occur within 25 feet of PG&E's towers. All excavation activities may only commence after 811 protocols has been followed.

Contractor shall ensure the protection of PG&E's towers and poles from vehicular damage by (installing protective barriers) Plans for protection barriers must be approved by PG&E prior to construction.

13. PG&E is also the owner of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs that may endanger the safe and reliable operation of its facilities.

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
OFFICE OF TRANSIT AND COMMUNITY PLANNING
P.O. BOX 23660, MS-10D
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

May 19, 2020

SCH #2020040270
GTS #04-SM-2020-00317
GTS ID: 19364
Co/Rt/Pm: SM/101/1.036

Art Henriques, Contract Project Planner
City of East Palo Alto, Community and Economic Development Department
1960 Tate Street
East Palo Alto, CA 94303

Woodland Park Euclid Improvements Project- Notice of Preparation (NOP) of an Environmental Impact Report

Dear Art Henriques:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Woodland Park Euclid Improvements Project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the May 2020 NOP.

Project Understanding

The 3.92-acre project site is on East Palo Alto's west side, located northwest of University Avenue, adjacent to U.S. 101 and northwest of University Circle. The project is within the city limits of East Palo Alto. The project area consists of a grouping of 14 individual parcels/addresses. The project parcels are bounded by West Bayshore Road, Manhattan Avenue, Euclid Avenue and O'Connor Street. The project is seeking a General Plan and zoning amendment to create a Neighborhood Center Residential Overlay (NCO), allowing new development standards for the proposed project. These standards would allow mixed-use, neighborhood-serving commercial and community uses on the ground floor, additional housing units, and increased building heights.

The project proposes removal of the existing 161 units, to be replaced with 605 residential units ranging in size. The residential buildings would be up to 13 stories in height. The project plans include an affordable housing plan, tenant relocation

plan, and fiscal impact analysis, not necessarily subject to environmental review.

Travel Demand Analysis
Please submit a travel demand analysis that provides a Vehicle Miles Traveled (VMT) analysis resulting from the proposed project. The travel demand analysis should include:

- A vicinity map, regional location map, and site plan clearly showing project access in relation to the State Transportation Network (STN). Ingress and egress for all project components should be clearly identified. Clearly identify the State right-of-way (ROW). Project driveways, local roads and intersections, car/bike parking, and transit facilities should be mapped.
- A VMT analysis pursuant to the City's guidelines. Projects that result in automobile VMT per capita above the threshold of significance for existing (i.e. baseline) city-wide or regional values for similar land use types may indicate a significant impact. If necessary, mitigation for increasing VMT should be identified. Mitigation should support the use of transit and active transportation modes. Potential mitigation measures that include the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City.
- A schematic illustration of walking, biking and auto conditions at the project site and study area roadways. Potential safety issues for all road users should be identified and fully mitigated.
- The project's primary and secondary effects on pedestrians, bicycles, travelers with disabilities and transit performance should be evaluated, including countermeasures and trade-offs resulting from mitigating VMT increases. Access to pedestrians, bicycle, and transit facilities must be maintained.

With respect to the local and regional roadway system, provide project related trip generation, distribution, turning movements, and assignment estimates. The project-generated trips should be added to the existing, future and cumulative scenario traffic volumes for the intersections affected by the project. In conducting these evaluations, it is necessary to use demand volumes rather than output volumes or constrained flow volume. If there are impacts to the STN, the project applicant shall coordinate with the City of East Palo Alto and Caltrans to discuss mitigation measures.

Vehicle Trip Reduction
From Caltrans' *Smart Mobility 2010: A Call to Action for the New Decade*, the project site is identified as Place Type 1b: Urban Centers where location efficiency factors, such as community design, and regional accessibility are strong. Given the place, type and size of the project, it should include a robust Transportation Demand Management (TDM) Program to reduce VMT and greenhouse gas emissions. Such measures are critical to facilitating efficient site access. The measures listed below can promote smart mobility and reduce regional VMT:

- Project design to encourage walking, bicycling and transit access;
- Transit and trip planning resources such as a commute information kiosk;
- Ten percent vehicle parking reductions;
- Charging stations and designated parking spaces for electric vehicles;
- Carpool and clean-fuel parking spaces;
- Designated parking spaces for a car share program;
- Unbundled parking;
- Secured bicycle storage facilities;
- Bicycle repair facilities;
- Participation/Formation in/of a Transportation Management Association (TMA) in partnership with other developments in the area; and
- Aggressive trip reduction targets with Lead Agency monitoring and enforcement.

Transportation Demand Management programs should be documented with annual monitoring reports by a TDM coordinator to demonstrate effectiveness. If the project does not achieve the VMT reduction goals, the reports should also include next steps to take in order to achieve those targets. Also, reducing parking supply can encourage active forms of transportation, reduce regional VMT, and lessen future transportation impacts on State facilities.

For additional TDM options, please refer to the Federal Highway Administration's *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8). The reference is available online at: http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf.

Multimodal, Bicycle and Pedestrian Planning
The project's primary and secondary effects on pedestrians, bicyclists, travelers with disabilities, and transit users should be evaluated, including countermeasures and trade-offs resulting from mitigating VMT increases. Access for pedestrians and bicyclists to transit facilities must be maintained. The

proposed project exhibits strong locational connections to bicycle and transit networks, including Caltrain, bicycle trails, connections to major employment centers and the Newell/Clark bicycle and pedestrian overcrossing. The inclusion of well-marked, well-connected bicycle and pedestrian facilities can encourage mode shift here.

Given the project location and adequate TDM measures, these smart growth approaches should be consistent with MTC's Regional Transportation Plan/SCS and would help meet Caltrans Strategic Management Plan targets.

Transportation Impact Fees
The City should identify project-generated travel demand and estimate the costs of transit and active transportation improvements necessitated by the proposed project; viable funding sources such as the City of East Palo Alto's development impact fee program for transportation infrastructure should also be identified. We encourage a sufficient allocation of fair share contributions toward multimodal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT.

The City should also ensure that a capital improvement plan identifying the cost of needed improvements, funding sources, and a scheduled plan for implementation is consistent with the East Palo Alto General Plan. Caltrans welcomes the opportunity to work with the City and local partners to secure the funding for needed mitigation. Traffic mitigation- or cooperative agreements are examples of such measures.

Encroachment Permit
Please be advised that any permanent work or temporary traffic control that encroaches onto the ROW requires a Caltrans-issued encroachment permit. If any Caltrans facilities are impacted by the project, those facilities must meet American Disabilities Act (ADA) Standards after project completion. As part of the encroachment permit submittal process, you may be asked by the Office of Encroachment Permits to submit a completed encroachment permit application, six (6) sets of plans clearly delineating the State ROW, six (6) copies of signed, dated and stamped (include stamp expiration date) traffic control plans, this comment letter, your response to the comment letter, and where applicable, the following items: new or amended Maintenance Agreement (MA), approved Design Standard Decision Document (DSDD), approved encroachment exception request, and/or airspace lease agreement.

To download the permit application and to obtain more information on all required documentation, visit https://dot.ca.gov/programs/traffic-operations/ep/applications.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Laurel Sears at (510)286-5614 or laurel.sears@dot.ca.gov.

Sincerely,

Mark Leong

Mark Leong
District Branch Chief
Local Development - Intergovernmental Review

cc: State Clearinghouse

WEST BAY
SANITARY DISTRICT

Serving Our Community Since 1902

500 Laurel Street, Menlo Park, California 94025-3486 (650) 321-0384 (650)321-4265 FAX

PHIL SCOTT
District Manager

In reply, please refer to our
File No.
063-282-010/020/030/040/
050/060/070/080/090 &
063-281-020/030/040/100/110

April 30, 2020

VIA EMAIL: Art Henriques **ahenriques@cityofepa.org**

VIA MAIL:

Art Henriques, Contract Project Planner
City of East Palo Alto
Community and Economic Development Department
1960 Tate Street
East Palo Alto, 94303

RE: NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE WOODLAND PARK EUCLID IMPROVEMENTS PROJECT AND NOTICE OF PUBLIC SCOPING MEETING

Dear Mr. Henriques:

I am in receipt of your NOP for the above-mentioned project, and am advising the City of East Palo Alto that the entire project is out of the West Bay Sanitary District's jurisdiction. The agency for sanitary sewer services in this sphere of influence is the East Palo Alto Sanitary District, and you should reach out to them if you haven't already done so. Thank you for your notice, I am confirming that our District has no sanitary sewer facilities in your project area.

If you have any questions, please call me at 650-321-0384.

Very truly yours,

WEST BAY SANITARY DISTRICT

Jonathan Werness
Engineering Technician

cc: BHK, SXR, TMR

W:\Public Data\Jonathan Werness\Projects\EPA\RE NOP of Woodland Park EIR.docx

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

RECEIVED
APR 27 2020
City of East Palo Alto
Planning Division

April 23, 2020

Art Henriques, Contract Planner
City of East Palo Alto
1960 Tate Street
East Palo Alto, CA 94303

Re: 2020040270, Woodland Park Euclid Improvements Project, San Mateo County

Dear Mr. Henriques:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

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Luiseño

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COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
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AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Staff Services Analyst

cc: State Clearinghouse

EAST PALO ALTO SANITARY DISTRICT

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Akin Okupe, M.B.A, P.E., General Manager

May 27, 2020

Arthur Henriques
Contract manager
City of East Palo Alto
1960 Tate Street,
East Palo Alto, CA 94303

Subject: Woodland/Euclid Apartment Project

Dear Arthur Henriques,

Pursuant to your email dated May 26, 2020, regarding the Woodland Apartment Project, this is to inform you that we don't have the hydraulic capacity required for this project. An upgrade of the collection system will be needed to serve the project. The developer is required to pay the sum of $10,000 for the performance of the hydraulic impact evaluation.

Thank you for your cooperation and anticipated action.

Sincerely,

Akin Okupe, General Manager

From: Tim Rochte <trochte@gmail.com>
Sent: Monday, May 18, 2020 4:48 PM
To: Art Henriques <ahenriques@cityofepa.org>
Cc: Combs, Drew <DCombs@menlopark.org>
Subject: EPA NOP Woodland Public Comment for 5/18/20

Mr Henriques,

I am writing to provide public comment on the Woodland Park Euclid Project.

First off, let me state that I am supportive of wise adaptation of the obsolete facilities on this block including increased density as it is needed. However, as a neighbor of the project in the next block of O'Connor, I have two concerns:

#1 Parking: We already have an unacceptable overflow of cars from these facilities. Based on data collected 4/30/20-5/10/20, we have an AVERAGE of 27 illegally parked cars on the 400 block of O'Connor daily. While enforcement is an Menlo Park problem, creating a living situation pushing people to park illegally is an East Palo Alto zoning problem. This project is DESIGNED to make the problem WORSE. This does not even address the additional 888 daily trips through an already choked intersection. (assuming 2x daily trips for each additional spot)

Before: 207 spots for 161 units = **1.29 spots/unit**
After: 696 spots for 605 units = **1.15 spots/unit**

Given the spillover of 27 today, I have to extrapolate to an expected 117 car overflow. This is completely unacceptable.

#2 Scale: This project, at 13 stories, is unreasonably large for being within a block of single story housing. The architect is doing a good job of stepping back from Euclid but even the 5-8 stories (per the public meeting in April 2019) on that side are excessive adjacent to single story housing. The Vista2035 planning that suggested this extreme sizing was not reasonable nor considerate of EPA's neighbors in MP. I recommend limiting to perhaps 10 on the back and 4-5 on the front.

Tim Rochte
448 O'Connor
Menlo Park, CA

CC Drew Combs, MP City Council
Sent Monday, May 18, 2020 at 16:47

From: Jay Quinby <jsquinby@gmail.com>
Sent: Friday, May 22, 2020 7:57 PM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: Protest! Reduce the Woodland Park Development

Dear Art:

This message is to protest the Woodland Park development.

Bottom line, the proposed development is **50% too big** for the neighborhood (# of units, height, and traffic).
It is too close to Menlo Park.

This proposed Woodland Park development will generate significant increased traffic on all nearby surface streets.

- Traffic from at least 389 ***additional*** vehicles (and parking spaces) will spill over to all nearby streets and completely alter our rural neighborhood.
- Access to my home (1983 Euclid Ave, in Townhouse Gardens) and neighboring dwellings will be choked by excessive and unsafe traffic.
- Studies must be performed BEFORE the project commences.
- Public transit routes must be proposed and mapped out.
- Budgets must be planned and approved by San Mateo and Santa Clara counties.

EYESORE. The 13-story height of a residential structure is unprecedented on this side of 101. The University Circle towers are only 6 stories high.
Please reduce the height of the Woodland Park Tower by 50%. It will be an eyesore and potentially unsafe due to earthquakes, rising sea-levels, and sandy soil composition.

Beware! The traffic and congestion from this development will ruin the area.

Mr. Henriques, Please let me know how I can continue to let my voice be heard on this project.

Thank you,

Jonathan Quinby
1983 Euclid Avenue
Menlo Park, CA 94025
O. +1-650-851-1011
E. jsquinby@gmail.com

From: Ken Hoyle <kenhoyle@gmail.com>
Sent: Monday, May 18, 2020 3:18 PM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: Public comment on Woodland Park Euclid Improvements Project

Hello,

My name is Ken Hoyle and I reside at 379 O'Connor street in Menlo Park.

The scope of this project is too large for this residential area and I strongly oppose it for the following reasons:

1. Adding a high-density high-rise here will drive increased traffic in an already over-traveled neighborhood. The Woodland road, Euclid side of the neighborhood experiences daily bumper to bumper stopped traffic - which is the primary ingress/egress for the residents in this proposed project. The turn restrictions, deployed last year by the city of Menlo Park and designed to reduce traffic, has helped the western side of the neighborhood, but the side where this project is still experiences daily gridlock.

2. The proposed parking (625 spots for 605 new units) is wholly inadequate and unrealistic, especially in a neighborhood where there is no available street parking.

3. A 5-13 story high-rise building inside this mostly 1-2 story neighborhood is a terrible negative impact on the current feeling of the neighborhood.

In summary, this project is too big for this neighborhood and should not proceed.

Thank you.

From: Hayden Kim <haydenhyunkim@gmail.com>
Sent: Tuesday, May 12, 2020 8:19 AM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: Question Regarding Woodland Park Euclid Improvements Project

Dear Mr. Henriques,

I hope you and the team are staying safe and in good health during this unusual time.

My name is Hayden, and I live in 480 E. Okeefe St. I received the notice for the Woodland Park Euclid Improvements Project and had a few questions.

- What is the projected duration of construction activities? When is construction to start?
- Are there any provisions in the plans to accommodate the inconveniences (e.g., noise, dust, traffic, construction vehicles...) for neighboring residences? I ask because the complex that I live in is immediately next to the project. I imagine many of us will have to get air conditioners/purifiers to remedy not being able to open our windows during the construction. Especially with COVID-19 and the continuous mutations of the virus which will take well into the construction period, it is imperative that we ensure safe levels of airflow in our units.

Thank you so much in advance for your attention to this matter.

Regards,

Hayden Kim

From: Debbie Kelsey <debbiejkelsey@gmail.com>
Sent: Tuesday, July 21, 2020 6:25 PM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: Status / Question - Woodland Park Euclid Improvements Project

Dear Mr. Henriques,

I hope you and your loved ones are safe and well. I wanted to inquire on the status and current plan for the Woodland Park Euclid Improvements Project, as well as another opportunity to provide feedback / input.

I just reviewed a letter on the topic, dated April 22, 2020, which requested input and noted a Public Scoping Meeting on May 18. Unfortunately, I just received the letter. I would like to provide input, and find out how to receive electronic notification of future meetings.

Specifically, I am concerned with the tearing down of the buildings with murals on the corner East O'Keefe and Euclid. The murals provide a vibrant and positive vibe and celebrate the diverse culture in East Palo Alto. To tear them down would be a shame. When I first saw them, I imagined what a delightful community center (or similar organization) might be possible at such a location, to inspire, energize and bring together the local community. I was horrified when I found out they would be torn down for the new housing.

Thank you very much for your help. I look forward to hearing from you.

Warm regards,

Debbie Kelsey

650-315-6029

From: J. Brady Barksdale <jbbarksdale@gmail.com>
Sent: Monday, May 18, 2020 2:46 PM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: Woodland Park Euclid Improvement Project

Dear Planning Commission,

Upon reading the proposed plan for the Woodland Park Euclid Improvement project I feel that this will drastically affect the quality of life of residents from both from the Menlo Park, Willows neighborhood, and the remaining East Palo Alto (West of 101).

First, looking at the proposed increased of units from 161 to 605 will no doubt 6X the number of residents in this already densely populated area. Which would be fine if we were not already heavily impacted by traffic and parking constraints (pre-Covid) and this plan is going to only to compound the problem. The traffic to Manhatten Avenue to Woodland (and eventually to University/Highway 101) in the morning does not have the capacity to take on any more traffic.

Secondly, the proposal for 621 parking spaces for 605 units is **WAY** under what is needed. This formula expects ~ 1 car per unit which is ridiculous. In fact most projects require 2.5 spots per units, how does this not need the same numbers. This will cause tremendous parking problems which is already at capacity and cause overflow of traffic onto residential streets who are already facing parking problems.

Third, creating multi-story (upwards to 13 stories tall) buildings in an area that is aside of this pocket is full of single-family homes is going to change this neighborhood and the the adjacent Willows neighborhood in a way that is directly going to affect the quality of life of all residents both during the build and afterwards.

I urge you to reconsider this and take in account that measures need to be taken to limit the size and scope of this project to conform to what is already here.

Thank you.

Brady

From: Jeff Leroux <m.jeff.leroux@gmail.com>
Sent: Monday, May 18, 2020 3:07 PM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: Woodland Park Euclid Improvements Project - my 2 cents

The proposed apartment complex that provides 625 parking spots for 605 living units is outrageous. Woodland has a history of housing multiple families in small apartment units with these tenants requiring multiple parking spots. You need only drive by the corner of O'Connor & Euclid any evening to see vehicles nearly stacked on top of each other competing for available space. Those not fortunate enough to park early enough then drive over to Menlo Park and park overnight illegally. This further victimizes the tenants as they end up paying repeated fines to Menlo Park for parking violations. This is with a relative small number of units versus the number proposed.

In addition to this, Woodland Park appears to have no control over what is done on their property. Behind my house is a Woodland Park managed building. The tenants set the yard on fire which ignited the shared fence between our properties and could of easily spread to many other properties.

Last summer, a gunman standing on the second floor walk up opened fire with a semi automatic handgun hitting my house three times with one bullet penetrating through my bedroom and burying itself in the wall on the opposite side of the room. Illegal fireworks, late night parties, garbage tossed everywhere are just one small part of the problem with these properties and this property management company.

The parking spot estimates for the number of units proposed is a complete joke. It will impose hardship on the tenants and surrounding neighbors. We already have nightmare backups during rush hour in this area. Why add a few hundred more units.

Jeff Leroux

From: Pranay Gupta <pranay1@gmail.com>
Sent: Monday, May 18, 2020 8:10 PM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: Woodland Park Euclid Improvements Project

Hello,

I am the owner of 423 O'Connor Street, Menlo Park. The biggest issues I see with these projects are:

1. Traffic: 605 new units vs 161 existing units will cause a lot of traffic issues.

2. Neighborhood feel: 13 stories vs 4 stories (existing) will change the feeling of the neighborhood to a high rise apartment zone.

3. Parking: 625 parking spots for 605 units is not adequate.

Thanks,

Pranay Gupta

From: William Lee <billklee@gmail.com>
Sent: Wednesday, April 29, 2020 8:22 AM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: Woodland Park Euclid scoping

Dear Mr. Henriques,

I am a homeowner in the West Palm Gardens condominiums at 453 E O'Keefe St, which is merely two doors down from the Woodland Park Euclid project. In general, I support development that raises my community's quality of life.

My main concern is that adding more than a thousand residents -- not to mention their visitors -- will worsen traffic. Here are my questions:

- What road and infrastructure improvements are planned to control car congestion?
- Over the years the SamTrans bus and East Palo Alto shuttle have successfully reduced the neighborhood's reliance on private cars. What plans are there to promote public transit and shuttle service between the neighborhood and downtown Palo Alto and Caltrain?
- Another effective alternative to private cars is cycling. The site plan has bike storage, which is a great idea. What infrastructure improvements are planned to promote safe cycling around the neighborhood?
- Street parking in the neighborhood is already very difficult. What will be done to ensure that the existing residents living outside of the new development will be able to find parking easily?
- West Bayshore Road is driven like a race track, which endangers residents like me who live along it. What is planned to make it safer?

I'm also concerned about the impact of this development on my neighborhood's views. The Four Seasons Hotel already imposes on our aesthetics. Which parts of the development will reach 10 stories or taller?

I look forward to hearing answers to these questions at the Planning Commission meeting on May 18.

Sincerely,

William Lee

From: Philip Livingston <pk.livingston.2@gmail.com>
Sent: Monday, May 18, 2020 3:29 PM
To: Art Henriques <ahenriques@cityofepa.org>
Subject: Woodland Park Improvements

Hello Mr. Henriques,

I live on O'Connor St. and am very concerned about the project as it is. Parking and emissions I believe would be horrific. I have kids with asthma and it looks like emissions will triple, that can't be safe in so confined an area.

It looks like you've got about 1 car per unit planned. I would say most homes have at least 2 cars and a home with a bigger family could double that. Just with the current crisis, parking has increased enough to clog the curbs and side streets for numerous blocks.

A 13 story building will also completely change the feel and look of the neighborhood.

Thank you for your time, I'll join the meeting tonight,

Phil Livingston

Appendix B

Air Quality/Greenhouse Gas/Health Risk Model Calculations

Existing Woodland Park

San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	161.00	Dwelling Unit	10.06	161,000.00	460

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	163	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on the 2020 PG&E CRSR

Land Use -

Construction Phase - Operational modelling only

Grading -

Vehicle Trips - per traffic analysis

Energy Use -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	4/15/2022	3/18/2022
tblConstructionPhase	PhaseEndDate	2/18/2022	12/25/2020
tblConstructionPhase	PhaseEndDate	10/30/2020	10/4/2020
tblConstructionPhase	PhaseEndDate	12/25/2020	11/13/2020
tblConstructionPhase	PhaseEndDate	3/18/2022	2/18/2022
tblConstructionPhase	PhaseEndDate	11/13/2020	10/30/2020
tblProjectCharacteristics	CO2IntensityFactor	641.35	163
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	7.16	7.32
tblVehicleTrips	SU_TR	6.07	7.32
tblVehicleTrips	WD_TR	6.59	7.32

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					

2020	0.0000	0.0000	0.0000	0.0000	0.0000	7.1652	0.0000	0.0000	6.6308	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.6514	0.0000	0.0000	0.6058	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.1652**	**0.0000**	**0.0000**	**6.6308**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	7.1652	0.0000	0.0000	6.6308	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.6514	0.0000	0.0000	0.6058	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.1652**	**0.0000**	**0.0000**	**6.6308**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	70.6851	1.6179	100.8072	0.1692		12.4924	12.4924		12.4924	12.4924	1,347.7062	620.5640	1,968.2702	1.8676	0.0953	2,043.3473

Energy	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848
Mobile	1.9550	5.5661	21.2298	0.0732	6.5106	0.0758	6.5864	1.7433	0.0712	1.8145		7,373.5465	7,373.5465	0.2603		7,380.0535
Total	**72.7369**	**8.0112**	**122.3889**	**0.2477**	**6.5106**	**12.6351**	**19.1457**	**1.7433**	**12.6305**	**14.3737**	**1,347.7062**	**9,050.1200**	**10,397.8263**	**2.1481**	**0.1146**	**10,485.6856**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	70.6851	1.6179	100.8072	0.1692		12.4924	12.4924		12.4924	12.4924	1,347.7062	620.5640	1,968.2702	1.8676	0.0953	2,043.3473
Energy	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848
Mobile	1.9550	5.5661	21.2298	0.0732	6.5106	0.0758	6.5864	1.7433	0.0712	1.8145		7,373.5465	7,373.5465	0.2603		7,380.0535
Total	**72.7369**	**8.0112**	**122.3889**	**0.2477**	**6.5106**	**12.6351**	**19.1457**	**1.7433**	**12.6305**	**14.3737**	**1,347.7062**	**9,050.1200**	**10,397.8263**	**2.1481**	**0.1146**	**10,485.6856**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/5/2020	10/4/2020	5	0	
2	Site Preparation	Site Preparation	10/31/2020	10/30/2020	5	0	
3	Grading	Grading	11/14/2020	11/13/2020	5	0	
4	Building Construction	Building Construction	12/26/2020	12/25/2020	5	0	

5	Paving	Paving	2/19/2022	2/18/2022	5	0	
6	Architectural Coating	Architectural Coating	3/19/2022	3/18/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 326,025; Residential Outdoor: 108,675; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	116.00	17.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Mitigated	1.9550	5.5661	21.2298	0.0732	6.5106	0.0758	6.5864	1.7433	0.0712	1.8145		7,373.5465	7,373.5465	0.2603		7,380.0535
Unmitigated	1.9550	5.5661	21.2298	0.0732	6.5106	0.0758	6.5864	1.7433	0.0712	1.8145		7,373.5465	7,373.5465	0.2603		7,380.0535

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,178.52	1,178.52	1178.52	3,065,500	3,065,500
Total	1,178.52	1,178.52	1,178.52	3,065,500	3,065,500

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.490452	0.049742	0.253638	0.136789	0.017926	0.006526	0.021436	0.006323	0.003943	0.003278	0.008771	0.000435	0.000741

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

NaturalGas Mitigated	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848
NaturalGas Unmitigated	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	8976.08	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848
Total		**0.0968**	**0.8272**	**0.3520**	**5.2800e-003**		**0.0669**	**0.0669**		**0.0669**	**0.0669**		**1,056.0095**	**1,056.0095**	**0.0202**	**0.0194**	**1,062.2848**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	8.97608	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848
Total		**0.0968**	**0.8272**	**0.3520**	**5.2800e-003**		**0.0669**	**0.0669**		**0.0669**	**0.0669**		**1,056.0095**	**1,056.0095**	**0.0202**	**0.0194**	**1,062.2848**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	70.6851	1.6179	100.8072	0.1692		12.4924	12.4924		12.4924	12.4924	1,347.7062	620.5640	1,968.2702	1.8676	0.0953	2,043.3473
Unmitigated	70.6851	1.6179	100.8072	0.1692		12.4924	12.4924		12.4924	12.4924	1,347.7062	620.5640	1,968.2702	1.8676	0.0953	2,043.3473

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4454					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	66.2129	1.4638	87.4803	0.1685		12.4191	12.4191		12.4191	12.4191	1,347.7062	596.6471	1,944.3533	1.8443	0.0953	2,018.8473
Landscaping	0.4058	0.1541	13.3269	7.0000e-004		0.0733	0.0733		0.0733	0.0733		23.9169	23.9169	0.0233		24.5000
Total	**70.6851**	**1.6179**	**100.8072**	**0.1692**		**12.4924**	**12.4924**		**12.4924**	**12.4924**	**1,347.7062**	**620.5640**	**1,968.2702**	**1.8676**	**0.0953**	**2,043.3473**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4454					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	66.2129	1.4638	87.4803	0.1685		12.4191	12.4191		12.4191	12.4191	1,347.7062	596.6471	1,944.3533	1.8443	0.0953	2,018.8473
Landscaping	0.4058	0.1541	13.3269	7.0000e-004		0.0733	0.0733		0.0733	0.0733		23.9169	23.9169	0.0233		24.5000
Total	**70.6851**	**1.6179**	**100.8072**	**0.1692**		**12.4924**	**12.4924**		**12.4924**	**12.4924**	**1,347.7062**	**620.5640**	**1,968.2702**	**1.8676**	**0.0953**	**2,043.3473**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Existing Woodland Park - San Mateo County, Winter

Existing Woodland Park

San Mateo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	161.00	Dwelling Unit	10.06	161,000.00	460

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	163	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on the 2020 PG&E CRSR

Land Use -

Construction Phase - Operational modelling only

Grading -

Vehicle Trips - per traffic analysis

Energy Use -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	4/15/2022	3/18/2022
tblConstructionPhase	PhaseEndDate	2/18/2022	12/25/2020
tblConstructionPhase	PhaseEndDate	10/30/2020	10/4/2020
tblConstructionPhase	PhaseEndDate	12/25/2020	11/13/2020
tblConstructionPhase	PhaseEndDate	3/18/2022	2/18/2022
tblConstructionPhase	PhaseEndDate	11/13/2020	10/30/2020
tblProjectCharacteristics	CO2IntensityFactor	641.35	163
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	7.16	7.32
tblVehicleTrips	SU_TR	6.07	7.32
tblVehicleTrips	WD_TR	6.59	7.32

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					

2020	0.0000	0.0000	0.0000	0.0000	0.0000	7.1654	0.0000	0.0000	6.6310	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.6514	0.0000	0.0000	0.6058	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.1654**	**0.0000**	**0.0000**	**6.6310**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	7.1654	0.0000	0.0000	6.6310	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.6514	0.0000	0.0000	0.6058	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.1654**	**0.0000**	**0.0000**	**6.6310**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	70.6851	1.6179	100.8072	0.1692		12.4924	12.4924		12.4924	12.4924	1,347.7062	620.5640	1,968.2702	1.8676	0.0953	2,043.3473

Energy	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848
Mobile	1.8038	6.0486	21.8875	0.0695	6.5106	0.0761	6.5866	1.7433	0.0714	1.8147		7,000.4315	7,000.4315	0.2640		7,007.0310
Total	**72.5857**	**8.4937**	**123.0467**	**0.2440**	**6.5106**	**12.6353**	**19.1459**	**1.7433**	**12.6307**	**14.3740**	**1,347.7062**	**8,677.0050**	**10,024.7113**	**2.1518**	**0.1146**	**10,112.6631**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	70.6851	1.6179	100.8072	0.1692		12.4924	12.4924		12.4924	12.4924	1,347.7062	620.5640	1,968.2702	1.8676	0.0953	2,043.3473
Energy	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848
Mobile	1.8038	6.0486	21.8875	0.0695	6.5106	0.0761	6.5866	1.7433	0.0714	1.8147		7,000.4315	7,000.4315	0.2640		7,007.0310
Total	**72.5857**	**8.4937**	**123.0467**	**0.2440**	**6.5106**	**12.6353**	**19.1459**	**1.7433**	**12.6307**	**14.3740**	**1,347.7062**	**8,677.0050**	**10,024.7113**	**2.1518**	**0.1146**	**10,112.6631**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/5/2020	10/4/2020	5	0	
2	Site Preparation	Site Preparation	10/31/2020	10/30/2020	5	0	
3	Grading	Grading	11/14/2020	11/13/2020	5	0	
4	Building Construction	Building Construction	12/26/2020	12/25/2020	5	0	

5	Paving	Paving	2/19/2022	2/18/2022	5	0	
6	Architectural Coating	Architectural Coating	3/19/2022	3/18/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 326,025; Residential Outdoor: 108,675; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	116.00	17.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Mitigated	1.8038	6.0486	21.8875	0.0695	6.5106	0.0761	6.5866	1.7433	0.0714	1.8147		7,000.4315	7,000.4315	0.2640		7,007.0310
Unmitigated	1.8038	6.0486	21.8875	0.0695	6.5106	0.0761	6.5866	1.7433	0.0714	1.8147		7,000.4315	7,000.4315	0.2640		7,007.0310

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,178.52	1,178.52	1178.52	3,065,500	3,065,500
Total	1,178.52	1,178.52	1,178.52	3,065,500	3,065,500

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.490452	0.049742	0.253638	0.136789	0.017926	0.006526	0.021436	0.006323	0.003943	0.003278	0.008771	0.000435	0.000741

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

NaturalGas Mitigated	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848
NaturalGas Unmitigated	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	8976.08	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848
Total		**0.0968**	**0.8272**	**0.3520**	**5.2800e-003**		**0.0669**	**0.0669**		**0.0669**	**0.0669**		**1,056.0095**	**1,056.0095**	**0.0202**	**0.0194**	**1,062.2848**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	8.97608	0.0968	0.8272	0.3520	5.2800e-003		0.0669	0.0669		0.0669	0.0669		1,056.0095	1,056.0095	0.0202	0.0194	1,062.2848
Total		**0.0968**	**0.8272**	**0.3520**	**5.2800e-003**		**0.0669**	**0.0669**		**0.0669**	**0.0669**		**1,056.0095**	**1,056.0095**	**0.0202**	**0.0194**	**1,062.2848**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	70.6851	1.6179	100.8072	0.1692		12.4924	12.4924		12.4924	12.4924	1,347.7062	620.5640	1,968.2702	1.8676	0.0953	2,043.3473
Unmitigated	70.6851	1.6179	100.8072	0.1692		12.4924	12.4924		12.4924	12.4924	1,347.7062	620.5640	1,968.2702	1.8676	0.0953	2,043.3473

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4454					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	66.2129	1.4638	87.4803	0.1685		12.4191	12.4191		12.4191	12.4191	1,347.7062	596.6471	1,944.3533	1.8443	0.0953	2,018.8473
Landscaping	0.4058	0.1541	13.3269	7.0000e-004		0.0733	0.0733		0.0733	0.0733		23.9169	23.9169	0.0233		24.5000
Total	**70.6851**	**1.6179**	**100.8072**	**0.1692**		**12.4924**	**12.4924**		**12.4924**	**12.4924**	**1,347.7062**	**620.5640**	**1,968.2702**	**1.8676**	**0.0953**	**2,043.3473**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4454					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	66.2129	1.4638	87.4803	0.1685		12.4191	12.4191		12.4191	12.4191	1,347.7062	596.6471	1,944.3533	1.8443	0.0953	2,018.8473
Landscaping	0.4058	0.1541	13.3269	7.0000e-004		0.0733	0.0733		0.0733	0.0733		23.9169	23.9169	0.0233		24.5000
Total	**70.6851**	**1.6179**	**100.8072**	**0.1692**		**12.4924**	**12.4924**		**12.4924**	**12.4924**	**1,347.7062**	**620.5640**	**1,968.2702**	**1.8676**	**0.0953**	**2,043.3473**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Woodland Park - San Mateo County, Summer

Woodland Park

San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	625.00	Space	5.63	250,000.00	0
Parking Lot	71.00	Space	0.64	28,400.00	0
Apartments Mid Rise	605.00	Dwelling Unit	15.92	605,000.00	1730
Strip Mall	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	163	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on the 2020 PG&E CRSR

Land Use -

Construction Phase - per construction questionnaire

Demolition -

Grading -

Vehicle Trips - per traffic analysis

Energy Use -

Construction Off-road Equipment Mitigation - per BAAQMD basic control measures

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation -

Energy Mitigation - Per title 24 2019

Water Mitigation -

Waste Mitigation - per AB 939

Stationary Sources - Emergency Generators and Fire Pumps - Fire Pump Station for emergency purposes

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	184.00
tblConstructionPhase	NumDays	370.00	587.00
tblConstructionPhase	NumDays	20.00	85.00
tblConstructionPhase	NumDays	35.00	151.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	10.00	23.00
tblGrading	MaterialImported	0.00	2,600.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	163
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	305.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	4.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
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tblVehicleEF	HHD	0.06	3.0000e-006
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tblVehicleEF	HHD	2.90	0.95
tblVehicleEF	HHD	11.27	0.03
tblVehicleEF	HHD	2,779.71	931.63
tblVehicleEF	HHD	1,748.63	1,585.25
tblVehicleEF	HHD	35.35	0.28

tblVehicleEF	HHD	12.92	5.24
tblVehicleEF	HHD	2.52	3.05
tblVehicleEF	HHD	16.09	2.40
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tblVehicleEF	HHD	0.03	0.03
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tblVehicleEF	HHD	3.3600e-004	2.0000e-006
tblVehicleEF	HHD	1.8400e-004	4.0000e-006
tblVehicleEF	HHD	0.01	2.0300e-004
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tblVehicleEF	HHD	0.06	3.0000e-006
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tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	0.01	0.01
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tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.01	0.01

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tblVehicleEF	LDT1	0.06	0.15
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tblVehicleEF	LDT1	2.6060e-003	1.9000e-003
tblVehicleEF	LDT1	1.6770e-003	1.3180e-003
tblVehicleEF	LDT1	2.3960e-003	1.7470e-003
tblVehicleEF	LDT1	0.09	0.09
tblVehicleEF	LDT1	0.12	0.10
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.01	9.3190e-003
tblVehicleEF	LDT1	0.09	0.33
tblVehicleEF	LDT1	0.07	0.17
tblVehicleEF	LDT1	2.7580e-003	2.7440e-003
tblVehicleEF	LDT1	6.3000e-004	5.4800e-004
tblVehicleEF	LDT1	0.09	0.09
tblVehicleEF	LDT1	0.12	0.10
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	0.09	0.33
tblVehicleEF	LDT1	0.07	0.18
tblVehicleEF	LDT1	3.9230e-003	2.0710e-003
tblVehicleEF	LDT1	6.4390e-003	0.05

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tblVehicleEF	LDT1	0.08	0.18
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tblVehicleEF	LDT1	2.6060e-003	1.9000e-003
tblVehicleEF	LDT1	1.6770e-003	1.3180e-003
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tblVehicleEF	LDT1	0.12	0.10
tblVehicleEF	LDT1	0.02	0.00
tblVehicleEF	LDT1	9.7350e-003	8.4650e-003
tblVehicleEF	LDT1	0.13	0.45
tblVehicleEF	LDT1	0.09	0.22
tblVehicleEF	LDT1	2.5880e-003	2.5980e-003
tblVehicleEF	LDT1	6.3800e-004	5.6200e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.12	0.10
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.13	0.45
tblVehicleEF	LDT1	0.10	0.24
tblVehicleEF	LDT2	3.4690e-003	1.9400e-003
tblVehicleEF	LDT2	4.0940e-003	0.05
tblVehicleEF	LDT2	0.51	0.56
tblVehicleEF	LDT2	1.03	2.54
tblVehicleEF	LDT2	297.27	275.26
tblVehicleEF	LDT2	69.53	59.15

tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.06	0.19
tblVehicleEF	LDT2	1.6830e-003	1.3140e-003
tblVehicleEF	LDT2	2.4040e-003	1.6980e-003
tblVehicleEF	LDT2	1.5480e-003	1.2100e-003
tblVehicleEF	LDT2	2.2100e-003	1.5610e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	8.6100e-003	7.4300e-003
tblVehicleEF	LDT2	0.06	0.29
tblVehicleEF	LDT2	0.06	0.22
tblVehicleEF	LDT2	2.9750e-003	2.7230e-003
tblVehicleEF	LDT2	7.1200e-004	5.8500e-004
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.29
tblVehicleEF	LDT2	0.06	0.24
tblVehicleEF	LDT2	3.7850e-003	2.1460e-003
tblVehicleEF	LDT2	3.4550e-003	0.04
tblVehicleEF	LDT2	0.58	0.64
tblVehicleEF	LDT2	0.83	2.00
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tblVehicleEF	LDT2	69.53	58.18
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.06	0.17
tblVehicleEF	LDT2	1.6830e-003	1.3140e-003
tblVehicleEF	LDT2	2.4040e-003	1.6980e-003

tblVehicleEF	LDT2	1.5480e-003	1.2100e-003
tblVehicleEF	LDT2	2.2100e-003	1.5610e-003
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	9.3910e-003	8.0810e-003
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.05	0.19
tblVehicleEF	LDT2	3.1600e-003	2.8530e-003
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tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.05	0.20
tblVehicleEF	LDT2	3.4080e-003	1.8850e-003
tblVehicleEF	LDT2	4.5490e-003	0.05
tblVehicleEF	LDT2	0.51	0.56
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tblVehicleEF	LDT2	296.14	274.45
tblVehicleEF	LDT2	69.53	59.83
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.07	0.21
tblVehicleEF	LDT2	1.6830e-003	1.3140e-003
tblVehicleEF	LDT2	2.4040e-003	1.6980e-003
tblVehicleEF	LDT2	1.5480e-003	1.2100e-003
tblVehicleEF	LDT2	2.2100e-003	1.5610e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08

tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	8.4570e-003	7.3030e-003
tblVehicleEF	LDT2	0.07	0.36
tblVehicleEF	LDT2	0.06	0.25
tblVehicleEF	LDT2	2.9640e-003	2.7150e-003
tblVehicleEF	LDT2	7.1500e-004	5.9200e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.36
tblVehicleEF	LDT2	0.07	0.27
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tblVehicleEF	LHD1	0.01	5.8360e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.69	0.51
tblVehicleEF	LHD1	1.94	0.97
tblVehicleEF	LHD1	8.97	8.57
tblVehicleEF	LHD1	656.10	751.95
tblVehicleEF	LHD1	28.64	11.12
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tblVehicleEF	LHD1	0.58	0.34
tblVehicleEF	LHD1	0.74	0.26
tblVehicleEF	LHD1	8.6900e-004	8.5300e-004
tblVehicleEF	LHD1	0.01	9.7990e-003
tblVehicleEF	LHD1	0.01	7.0500e-003
tblVehicleEF	LHD1	7.3000e-004	2.2400e-004
tblVehicleEF	LHD1	8.3100e-004	8.1600e-004
tblVehicleEF	LHD1	2.5810e-003	2.4500e-003

tblVehicleEF	LHD1	0.01	6.6990e-003
tblVehicleEF	LHD1	6.7100e-004	2.0600e-004
tblVehicleEF	LHD1	1.4780e-003	1.0710e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	9.5600e-004	6.9000e-004
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.25	0.33
tblVehicleEF	LHD1	0.17	0.05
tblVehicleEF	LHD1	8.9000e-005	8.3000e-005
tblVehicleEF	LHD1	6.4190e-003	7.3400e-003
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tblVehicleEF	LHD1	1.4780e-003	1.0710e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	9.5600e-004	6.9000e-004
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tblVehicleEF	LHD1	0.25	0.33
tblVehicleEF	LHD1	0.19	0.06
tblVehicleEF	LHD1	4.4510e-003	4.6960e-003
tblVehicleEF	LHD1	0.01	5.9540e-003
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tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.70	0.52
tblVehicleEF	LHD1	1.79	0.90
tblVehicleEF	LHD1	8.97	8.57
tblVehicleEF	LHD1	656.10	751.97
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tblVehicleEF	LHD1	0.55	0.33

tblVehicleEF	LHD1	0.69	0.24
tblVehicleEF	LHD1	8.6900e-004	8.5300e-004
tblVehicleEF	LHD1	0.01	9.7990e-003
tblVehicleEF	LHD1	0.01	7.0500e-003
tblVehicleEF	LHD1	7.3000e-004	2.2400e-004
tblVehicleEF	LHD1	8.3100e-004	8.1600e-004
tblVehicleEF	LHD1	2.5810e-003	2.4500e-003
tblVehicleEF	LHD1	0.01	6.6990e-003
tblVehicleEF	LHD1	6.7100e-004	2.0600e-004
tblVehicleEF	LHD1	3.5060e-003	2.5700e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.5870e-003	1.1640e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.24	0.32
tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD1	8.9000e-005	8.3000e-005
tblVehicleEF	LHD1	6.4190e-003	7.3410e-003
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tblVehicleEF	LHD1	3.5060e-003	2.5700e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.5870e-003	1.1640e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.24	0.32
tblVehicleEF	LHD1	0.18	0.05
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tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.14	0.18

tblVehicleEF	LHD1	0.68	0.50
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tblVehicleEF	LHD1	656.10	751.94
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tblVehicleEF	LHD1	0.60	0.35
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tblVehicleEF	LHD1	8.6900e-004	8.5300e-004
tblVehicleEF	LHD1	0.01	9.7990e-003
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tblVehicleEF	LHD1	7.3000e-004	2.2400e-004
tblVehicleEF	LHD1	8.3100e-004	8.1600e-004
tblVehicleEF	LHD1	2.5810e-003	2.4500e-003
tblVehicleEF	LHD1	0.01	6.6990e-003
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tblVehicleEF	LHD1	8.9400e-004	6.3900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	4.1900e-004	2.9700e-004
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.27	0.37
tblVehicleEF	LHD1	0.18	0.05
tblVehicleEF	LHD1	8.9000e-005	8.3000e-005
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tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	4.1900e-004	2.9700e-004

tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.27	0.37
tblVehicleEF	LHD1	0.20	0.06
tblVehicleEF	LHD2	2.9820e-003	2.8930e-003
tblVehicleEF	LHD2	5.8340e-003	5.4660e-003
tblVehicleEF	LHD2	4.3710e-003	5.9890e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.45	0.46
tblVehicleEF	LHD2	0.99	0.57
tblVehicleEF	LHD2	13.72	13.29
tblVehicleEF	LHD2	689.14	728.51
tblVehicleEF	LHD2	23.21	7.48
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.30	0.37
tblVehicleEF	LHD2	0.34	0.15
tblVehicleEF	LHD2	1.1500e-003	1.4140e-003
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tblVehicleEF	LHD2	9.9090e-003	0.01
tblVehicleEF	LHD2	3.8100e-004	1.2000e-004
tblVehicleEF	LHD2	1.1000e-003	1.3530e-003
tblVehicleEF	LHD2	2.6980e-003	2.6890e-003
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tblVehicleEF	LHD2	4.3600e-004	5.6800e-004
tblVehicleEF	LHD2	0.02	0.03
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tblVehicleEF	LHD2	3.0000e-004	3.7300e-004
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tblVehicleEF	LHD2	0.05	0.17
tblVehicleEF	LHD2	0.06	0.03

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tblVehicleEF	LHD2	4.3600e-004	5.6800e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.0000e-004	3.7300e-004
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tblVehicleEF	LHD2	0.05	0.17
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tblVehicleEF	LHD2	4.1680e-003	5.6520e-003
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tblVehicleEF	LHD2	0.45	0.46
tblVehicleEF	LHD2	0.92	0.53
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tblVehicleEF	LHD2	689.14	728.51
tblVehicleEF	LHD2	23.21	7.41
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tblVehicleEF	LHD2	0.29	0.36
tblVehicleEF	LHD2	0.32	0.14
tblVehicleEF	LHD2	1.1500e-003	1.4140e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9090e-003	0.01
tblVehicleEF	LHD2	3.8100e-004	1.2000e-004
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tblVehicleEF	LHD2	2.6980e-003	2.6890e-003
tblVehicleEF	LHD2	9.4570e-003	0.01
tblVehicleEF	LHD2	3.5000e-004	1.1000e-004

tblVehicleEF	LHD2	1.0340e-003	1.3590e-003
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tblVehicleEF	LHD2	0.04	0.16
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tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	5.0400e-004	6.3000e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.06	0.03
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tblVehicleEF	LHD2	4.5250e-003	6.2410e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.45	0.46
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tblVehicleEF	LHD2	689.14	728.50
tblVehicleEF	LHD2	23.21	7.53
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.31	0.38
tblVehicleEF	LHD2	0.35	0.16
tblVehicleEF	LHD2	1.1500e-003	1.4140e-003

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9090e-003	0.01
tblVehicleEF	LHD2	3.8100e-004	1.2000e-004
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tblVehicleEF	LHD2	9.4570e-003	0.01
tblVehicleEF	LHD2	3.5000e-004	1.1000e-004
tblVehicleEF	LHD2	2.7200e-004	3.4600e-004
tblVehicleEF	LHD2	0.02	0.03
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tblVehicleEF	LHD2	0.05	0.19
tblVehicleEF	LHD2	0.06	0.03
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tblVehicleEF	LHD2	6.6990e-003	7.0360e-003
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tblVehicleEF	LHD2	2.7200e-004	3.4600e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3300e-004	1.6400e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.05	0.19
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	MCY	0.46	0.33
tblVehicleEF	MCY	0.16	0.26
tblVehicleEF	MCY	18.12	18.30
tblVehicleEF	MCY	10.44	9.27
tblVehicleEF	MCY	173.27	212.79
tblVehicleEF	MCY	42.90	59.80

tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1390e-003	2.1570e-003
tblVehicleEF	MCY	3.5490e-003	3.1010e-003
tblVehicleEF	MCY	1.9950e-003	2.0130e-003
tblVehicleEF	MCY	3.3260e-003	2.9050e-003
tblVehicleEF	MCY	0.60	0.60
tblVehicleEF	MCY	0.51	0.51
tblVehicleEF	MCY	0.35	0.35
tblVehicleEF	MCY	2.15	2.17
tblVehicleEF	MCY	0.43	1.71
tblVehicleEF	MCY	2.16	1.93
tblVehicleEF	MCY	2.0930e-003	2.1060e-003
tblVehicleEF	MCY	6.6300e-004	5.9200e-004
tblVehicleEF	MCY	0.60	0.60
tblVehicleEF	MCY	0.51	0.51
tblVehicleEF	MCY	0.35	0.35
tblVehicleEF	MCY	2.70	2.71
tblVehicleEF	MCY	0.43	1.71
tblVehicleEF	MCY	2.35	2.10
tblVehicleEF	MCY	0.45	0.32
tblVehicleEF	MCY	0.13	0.22
tblVehicleEF	MCY	17.05	17.20
tblVehicleEF	MCY	9.01	7.93
tblVehicleEF	MCY	173.27	210.76
tblVehicleEF	MCY	42.90	56.60
tblVehicleEF	MCY	1.01	1.01
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.1390e-003	2.1570e-003
tblVehicleEF	MCY	3.5490e-003	3.1010e-003

tblVehicleEF	MCY	1.9950e-003	2.0130e-003
tblVehicleEF	MCY	3.3260e-003	2.9050e-003
tblVehicleEF	MCY	1.79	1.80
tblVehicleEF	MCY	0.62	0.63
tblVehicleEF	MCY	0.87	0.87
tblVehicleEF	MCY	2.08	2.09
tblVehicleEF	MCY	0.39	1.55
tblVehicleEF	MCY	1.82	1.61
tblVehicleEF	MCY	2.0740e-003	2.0860e-003
tblVehicleEF	MCY	6.3000e-004	5.6000e-004
tblVehicleEF	MCY	1.79	1.80
tblVehicleEF	MCY	0.62	0.63
tblVehicleEF	MCY	0.87	0.87
tblVehicleEF	MCY	2.61	2.61
tblVehicleEF	MCY	0.39	1.55
tblVehicleEF	MCY	1.99	1.75
tblVehicleEF	MCY	0.48	0.33
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.35	19.55
tblVehicleEF	MCY	11.75	10.49
tblVehicleEF	MCY	173.27	215.03
tblVehicleEF	MCY	42.90	62.61
tblVehicleEF	MCY	1.22	1.22
tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	2.1390e-003	2.1570e-003
tblVehicleEF	MCY	3.5490e-003	3.1010e-003
tblVehicleEF	MCY	1.9950e-003	2.0130e-003
tblVehicleEF	MCY	3.3260e-003	2.9050e-003
tblVehicleEF	MCY	0.25	0.25
tblVehicleEF	MCY	0.62	0.62

tblVehicleEF	MCY	0.11	0.12
tblVehicleEF	MCY	2.22	2.24
tblVehicleEF	MCY	0.52	2.07
tblVehicleEF	MCY	2.44	2.19
tblVehicleEF	MCY	2.1150e-003	2.1280e-003
tblVehicleEF	MCY	6.9300e-004	6.2000e-004
tblVehicleEF	MCY	0.25	0.25
tblVehicleEF	MCY	0.62	0.62
tblVehicleEF	MCY	0.11	0.12
tblVehicleEF	MCY	2.79	2.80
tblVehicleEF	MCY	0.52	2.07
tblVehicleEF	MCY	2.66	2.39
tblVehicleEF	MDV	5.0930e-003	1.9550e-003
tblVehicleEF	MDV	8.0210e-003	0.05
tblVehicleEF	MDV	0.65	0.55
tblVehicleEF	MDV	1.63	2.63
tblVehicleEF	MDV	393.72	330.48
tblVehicleEF	MDV	90.82	69.96
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.12	0.21
tblVehicleEF	MDV	1.7140e-003	1.3270e-003
tblVehicleEF	MDV	2.3890e-003	1.7040e-003
tblVehicleEF	MDV	1.5790e-003	1.2230e-003
tblVehicleEF	MDV	2.1970e-003	1.5670e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.01	7.6550e-003
tblVehicleEF	MDV	0.09	0.29
tblVehicleEF	MDV	0.11	0.25

tblVehicleEF	MDV	3.9360e-003	3.2660e-003
tblVehicleEF	MDV	9.3600e-004	6.9200e-004
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.29
tblVehicleEF	MDV	0.12	0.27
tblVehicleEF	MDV	5.5440e-003	2.1630e-003
tblVehicleEF	MDV	6.7450e-003	0.05
tblVehicleEF	MDV	0.74	0.63
tblVehicleEF	MDV	1.30	2.07
tblVehicleEF	MDV	417.41	343.41
tblVehicleEF	MDV	90.82	68.94
tblVehicleEF	MDV	0.06	0.03
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.7140e-003	1.3270e-003
tblVehicleEF	MDV	2.3890e-003	1.7040e-003
tblVehicleEF	MDV	1.5790e-003	1.2230e-003
tblVehicleEF	MDV	2.1970e-003	1.5670e-003
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.01	8.3030e-003
tblVehicleEF	MDV	0.08	0.26
tblVehicleEF	MDV	0.09	0.21
tblVehicleEF	MDV	4.1740e-003	3.3940e-003
tblVehicleEF	MDV	9.3000e-004	6.8200e-004
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.11	0.09

tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.26
tblVehicleEF	MDV	0.10	0.23
tblVehicleEF	MDV	5.0120e-003	1.9020e-003
tblVehicleEF	MDV	8.9290e-003	0.06
tblVehicleEF	MDV	0.65	0.55
tblVehicleEF	MDV	1.87	3.03
tblVehicleEF	MDV	392.27	329.70
tblVehicleEF	MDV	90.82	70.68
tblVehicleEF	MDV	0.08	0.04
tblVehicleEF	MDV	0.13	0.23
tblVehicleEF	MDV	1.7140e-003	1.3270e-003
tblVehicleEF	MDV	2.3890e-003	1.7040e-003
tblVehicleEF	MDV	1.5790e-003	1.2230e-003
tblVehicleEF	MDV	2.1970e-003	1.5670e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.08
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.01	7.5430e-003
tblVehicleEF	MDV	0.11	0.36
tblVehicleEF	MDV	0.12	0.27
tblVehicleEF	MDV	3.9220e-003	3.2580e-003
tblVehicleEF	MDV	9.4000e-004	6.9900e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.11	0.36
tblVehicleEF	MDV	0.13	0.30

tblVehicleEF	MH	0.01	5.5960e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.67	0.42
tblVehicleEF	MH	3.91	1.78
tblVehicleEF	MH	1,185.18	1,419.69
tblVehicleEF	MH	56.59	16.60
tblVehicleEF	MH	0.80	0.92
tblVehicleEF	MH	0.59	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1800e-004	2.4300e-004
tblVehicleEF	MH	3.2240e-003	3.2800e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4400e-004	2.2300e-004
tblVehicleEF	MH	0.29	0.25
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.13	0.11
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	9.5900e-003	0.56
tblVehicleEF	MH	0.22	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3400e-004	1.6400e-004
tblVehicleEF	MH	0.29	0.25
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.13	0.11
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	9.5900e-003	0.56
tblVehicleEF	MH	0.24	0.09
tblVehicleEF	MH	0.01	5.7580e-003
tblVehicleEF	MH	0.02	0.02

tblVehicleEF	MH	0.69	0.44
tblVehicleEF	MH	3.60	1.64
tblVehicleEF	MH	1,185.18	1,419.71
tblVehicleEF	MH	56.59	16.36
tblVehicleEF	MH	0.76	0.88
tblVehicleEF	MH	0.54	0.21
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1800e-004	2.4300e-004
tblVehicleEF	MH	3.2240e-003	3.2800e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4400e-004	2.2300e-004
tblVehicleEF	MH	0.67	0.58
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.22	0.19
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	9.2590e-003	0.54
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.2800e-004	1.6200e-004
tblVehicleEF	MH	0.67	0.58
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.22	0.19
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	9.2590e-003	0.54
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MH	0.01	5.4930e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.65	0.41
tblVehicleEF	MH	4.18	1.90

tblVehicleEF	MH	1,185.18	1,419.67
tblVehicleEF	MH	56.59	16.80
tblVehicleEF	MH	0.82	0.94
tblVehicleEF	MH	0.62	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1800e-004	2.4300e-004
tblVehicleEF	MH	3.2240e-003	3.2800e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4400e-004	2.2300e-004
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.60
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3800e-004	1.6600e-004
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.01	0.60
tblVehicleEF	MH	0.25	0.09
tblVehicleEF	MHD	0.02	3.9340e-003
tblVehicleEF	MHD	3.2730e-003	1.4090e-003
tblVehicleEF	MHD	0.04	9.5150e-003
tblVehicleEF	MHD	0.36	0.38
tblVehicleEF	MHD	0.28	0.19
tblVehicleEF	MHD	4.58	1.06

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tblVehicleEF	MHD	1.02	1.30
tblVehicleEF	MHD	10.30	1.66
tblVehicleEF	MHD	7.5000e-005	2.4000e-004
tblVehicleEF	MHD	2.9360e-003	6.2030e-003
tblVehicleEF	MHD	8.3500e-004	1.1800e-004
tblVehicleEF	MHD	7.2000e-005	2.3000e-004
tblVehicleEF	MHD	2.8030e-003	5.9280e-003
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tblVehicleEF	MHD	5.2400e-004	2.6600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.5100e-004	1.7600e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.01	0.09
tblVehicleEF	MHD	0.27	0.05
tblVehicleEF	MHD	1.3020e-003	5.8900e-004
tblVehicleEF	MHD	0.01	9.9640e-003
tblVehicleEF	MHD	6.6900e-004	9.5000e-005
tblVehicleEF	MHD	5.2400e-004	2.6600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.5100e-004	1.7600e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.01	0.09
tblVehicleEF	MHD	0.30	0.05
tblVehicleEF	MHD	0.01	3.7030e-003

tblVehicleEF	MHD	3.3280e-003	1.4490e-003
tblVehicleEF	MHD	0.04	8.9390e-003
tblVehicleEF	MHD	0.25	0.32
tblVehicleEF	MHD	0.28	0.20
tblVehicleEF	MHD	4.19	0.97
tblVehicleEF	MHD	143.32	61.95
tblVehicleEF	MHD	1,176.19	1,043.82
tblVehicleEF	MHD	58.95	9.46
tblVehicleEF	MHD	0.37	0.33
tblVehicleEF	MHD	0.98	1.24
tblVehicleEF	MHD	10.26	1.65
tblVehicleEF	MHD	6.3000e-005	2.0600e-004
tblVehicleEF	MHD	2.9360e-003	6.2030e-003
tblVehicleEF	MHD	8.3500e-004	1.1800e-004
tblVehicleEF	MHD	6.1000e-005	1.9700e-004
tblVehicleEF	MHD	2.8030e-003	5.9280e-003
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tblVehicleEF	MHD	1.2670e-003	6.4600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	6.0600e-004	3.0500e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.01	0.08
tblVehicleEF	MHD	0.26	0.05
tblVehicleEF	MHD	1.3780e-003	5.8800e-004
tblVehicleEF	MHD	0.01	9.9640e-003
tblVehicleEF	MHD	6.6300e-004	9.4000e-005
tblVehicleEF	MHD	1.2670e-003	6.4600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.02

tblVehicleEF	MHD	6.0600e-004	3.0500e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.01	0.08
tblVehicleEF	MHD	0.28	0.05
tblVehicleEF	MHD	0.02	4.1630e-003
tblVehicleEF	MHD	3.2380e-003	1.3830e-003
tblVehicleEF	MHD	0.04	9.9090e-003
tblVehicleEF	MHD	0.48	0.45
tblVehicleEF	MHD	0.28	0.19
tblVehicleEF	MHD	4.89	1.13
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tblVehicleEF	MHD	1,176.19	1,043.80
tblVehicleEF	MHD	58.95	9.74
tblVehicleEF	MHD	0.34	0.35
tblVehicleEF	MHD	1.04	1.32
tblVehicleEF	MHD	10.34	1.66
tblVehicleEF	MHD	9.1000e-005	2.8900e-004
tblVehicleEF	MHD	2.9360e-003	6.2030e-003
tblVehicleEF	MHD	8.3500e-004	1.1800e-004
tblVehicleEF	MHD	8.7000e-005	2.7600e-004
tblVehicleEF	MHD	2.8030e-003	5.9280e-003
tblVehicleEF	MHD	7.6800e-004	1.0900e-004
tblVehicleEF	MHD	3.1900e-004	1.6000e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.5200e-004	7.5000e-005
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.29	0.05
tblVehicleEF	MHD	1.1990e-003	5.9000e-004

tblVehicleEF	MHD	0.01	9.9640e-003
tblVehicleEF	MHD	6.7500e-004	9.6000e-005
tblVehicleEF	MHD	3.1900e-004	1.6000e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.5200e-004	7.5000e-005
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.31	0.06
tblVehicleEF	OBUS	0.01	6.7000e-003
tblVehicleEF	OBUS	4.6710e-003	2.5540e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.24	0.63
tblVehicleEF	OBUS	0.35	0.31
tblVehicleEF	OBUS	4.29	1.48
tblVehicleEF	OBUS	119.16	103.58
tblVehicleEF	OBUS	1,289.22	1,286.62
tblVehicleEF	OBUS	64.48	12.91
tblVehicleEF	OBUS	0.26	0.44
tblVehicleEF	OBUS	0.95	1.48
tblVehicleEF	OBUS	3.00	1.21
tblVehicleEF	OBUS	2.4000e-005	1.4300e-004
tblVehicleEF	OBUS	2.9450e-003	7.6570e-003
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tblVehicleEF	OBUS	2.7980e-003	7.3130e-003
tblVehicleEF	OBUS	8.2200e-004	1.3300e-004
tblVehicleEF	OBUS	7.7800e-004	7.6700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.05

tblVehicleEF	OBUS	4.1700e-004	4.0100e-004
tblVehicleEF	OBUS	0.04	0.02
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tblVehicleEF	OBUS	1.1480e-003	9.8300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2000e-004	1.2800e-004
tblVehicleEF	OBUS	7.7800e-004	7.6700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	4.1700e-004	4.0100e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.14
tblVehicleEF	OBUS	0.29	0.08
tblVehicleEF	OBUS	0.01	6.7980e-003
tblVehicleEF	OBUS	4.7870e-003	2.6380e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.24	0.62
tblVehicleEF	OBUS	0.35	0.32
tblVehicleEF	OBUS	3.95	1.36
tblVehicleEF	OBUS	125.29	102.29
tblVehicleEF	OBUS	1,289.22	1,286.63
tblVehicleEF	OBUS	64.48	12.71
tblVehicleEF	OBUS	0.27	0.42
tblVehicleEF	OBUS	0.91	1.42
tblVehicleEF	OBUS	2.95	1.20
tblVehicleEF	OBUS	2.0000e-005	1.2700e-004
tblVehicleEF	OBUS	2.9450e-003	7.6570e-003
tblVehicleEF	OBUS	8.9400e-004	1.4400e-004
tblVehicleEF	OBUS	1.9000e-005	1.2200e-004

tblVehicleEF	OBUS	2.7980e-003	7.3130e-003
tblVehicleEF	OBUS	8.2200e-004	1.3300e-004
tblVehicleEF	OBUS	1.7800e-003	1.7440e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.05
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tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.14
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tblVehicleEF	OBUS	7.1400e-004	1.2600e-004
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tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	7.1600e-004	6.7600e-004
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tblVehicleEF	OBUS	0.02	0.14
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tblVehicleEF	OBUS	0.01	6.5780e-003
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tblVehicleEF	OBUS	0.25	0.64
tblVehicleEF	OBUS	0.34	0.31
tblVehicleEF	OBUS	4.57	1.58
tblVehicleEF	OBUS	110.68	105.36
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tblVehicleEF	OBUS	0.97	1.51

tblVehicleEF	OBUS	3.04	1.22
tblVehicleEF	OBUS	2.9000e-005	1.6500e-004
tblVehicleEF	OBUS	2.9450e-003	7.6570e-003
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tblVehicleEF	OBUS	8.2200e-004	1.3300e-004
tblVehicleEF	OBUS	5.1600e-004	5.0400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.6000e-004	1.5400e-004
tblVehicleEF	OBUS	0.04	0.02
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tblVehicleEF	OBUS	1.0670e-003	1.0000e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2500e-004	1.2900e-004
tblVehicleEF	OBUS	5.1600e-004	5.0400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	1.6000e-004	1.5400e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.16
tblVehicleEF	OBUS	0.30	0.08
tblVehicleEF	SBUS	0.83	0.11
tblVehicleEF	SBUS	0.01	8.8090e-003
tblVehicleEF	SBUS	0.06	0.01
tblVehicleEF	SBUS	12.94	4.01
tblVehicleEF	SBUS	0.72	0.80
tblVehicleEF	SBUS	11.86	1.56

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tblVehicleEF	SBUS	847.81	971.83
tblVehicleEF	SBUS	89.56	8.11
tblVehicleEF	SBUS	3.62	3.13
tblVehicleEF	SBUS	1.69	4.12
tblVehicleEF	SBUS	6.20	0.74
tblVehicleEF	SBUS	2.9290e-003	3.4540e-003
tblVehicleEF	SBUS	9.2930e-003	0.01
tblVehicleEF	SBUS	9.2750e-003	0.02
tblVehicleEF	SBUS	1.7340e-003	1.3000e-004
tblVehicleEF	SBUS	2.8030e-003	3.3050e-003
tblVehicleEF	SBUS	2.3230e-003	2.5240e-003
tblVehicleEF	SBUS	8.8370e-003	0.02
tblVehicleEF	SBUS	1.5940e-003	1.1900e-004
tblVehicleEF	SBUS	2.8560e-003	6.7200e-004
tblVehicleEF	SBUS	0.03	8.3910e-003
tblVehicleEF	SBUS	1.55	0.48
tblVehicleEF	SBUS	1.5450e-003	3.3200e-004
tblVehicleEF	SBUS	0.06	0.09
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.59	0.06
tblVehicleEF	SBUS	8.4050e-003	3.5190e-003
tblVehicleEF	SBUS	8.2910e-003	9.3510e-003
tblVehicleEF	SBUS	1.0990e-003	8.0000e-005
tblVehicleEF	SBUS	2.8560e-003	6.7200e-004
tblVehicleEF	SBUS	0.03	8.3910e-003
tblVehicleEF	SBUS	2.25	0.70
tblVehicleEF	SBUS	1.5450e-003	3.3200e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.05

tblVehicleEF	SBUS	0.64	0.06
tblVehicleEF	SBUS	0.83	0.11
tblVehicleEF	SBUS	0.01	9.0070e-003
tblVehicleEF	SBUS	0.05	8.8620e-003
tblVehicleEF	SBUS	12.90	3.97
tblVehicleEF	SBUS	0.74	0.82
tblVehicleEF	SBUS	9.16	1.21
tblVehicleEF	SBUS	855.90	376.40
tblVehicleEF	SBUS	847.81	971.87
tblVehicleEF	SBUS	89.56	7.51
tblVehicleEF	SBUS	3.73	3.20
tblVehicleEF	SBUS	1.61	3.95
tblVehicleEF	SBUS	6.14	0.73
tblVehicleEF	SBUS	2.4700e-003	2.9190e-003
tblVehicleEF	SBUS	9.2930e-003	0.01
tblVehicleEF	SBUS	9.2750e-003	0.02
tblVehicleEF	SBUS	1.7340e-003	1.3000e-004
tblVehicleEF	SBUS	2.3630e-003	2.7930e-003
tblVehicleEF	SBUS	2.3230e-003	2.5240e-003
tblVehicleEF	SBUS	8.8370e-003	0.02
tblVehicleEF	SBUS	1.5940e-003	1.1900e-004
tblVehicleEF	SBUS	6.5390e-003	1.5810e-003
tblVehicleEF	SBUS	0.03	8.6220e-003
tblVehicleEF	SBUS	1.55	0.48
tblVehicleEF	SBUS	2.6690e-003	5.9600e-004
tblVehicleEF	SBUS	0.06	0.09
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.50	0.05
tblVehicleEF	SBUS	8.6260e-003	3.6030e-003
tblVehicleEF	SBUS	8.2910e-003	9.3510e-003

tblVehicleEF	SBUS	1.0540e-003	7.4000e-005
tblVehicleEF	SBUS	6.5390e-003	1.5810e-003
tblVehicleEF	SBUS	0.03	8.6220e-003
tblVehicleEF	SBUS	2.25	0.70
tblVehicleEF	SBUS	2.6690e-003	5.9600e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.55	0.06
tblVehicleEF	SBUS	0.83	0.11
tblVehicleEF	SBUS	0.01	8.6760e-003
tblVehicleEF	SBUS	0.07	0.01
tblVehicleEF	SBUS	13.01	4.06
tblVehicleEF	SBUS	0.71	0.79
tblVehicleEF	SBUS	14.47	1.90
tblVehicleEF	SBUS	800.59	355.35
tblVehicleEF	SBUS	847.81	971.80
tblVehicleEF	SBUS	89.56	8.67
tblVehicleEF	SBUS	3.46	3.02
tblVehicleEF	SBUS	1.72	4.20
tblVehicleEF	SBUS	6.24	0.74
tblVehicleEF	SBUS	3.5650e-003	4.1930e-003
tblVehicleEF	SBUS	9.2930e-003	0.01
tblVehicleEF	SBUS	9.2750e-003	0.02
tblVehicleEF	SBUS	1.7340e-003	1.3000e-004
tblVehicleEF	SBUS	3.4100e-003	4.0120e-003
tblVehicleEF	SBUS	2.3230e-003	2.5240e-003
tblVehicleEF	SBUS	8.8370e-003	0.02
tblVehicleEF	SBUS	1.5940e-003	1.1900e-004
tblVehicleEF	SBUS	1.9120e-003	4.2200e-004
tblVehicleEF	SBUS	0.03	8.6660e-003

tblVehicleEF	SBUS	1.55	0.48
tblVehicleEF	SBUS	5.9700e-004	1.2500e-004
tblVehicleEF	SBUS	0.06	0.09
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.65	0.07
tblVehicleEF	SBUS	8.0990e-003	3.4040e-003
tblVehicleEF	SBUS	8.2900e-003	9.3510e-003
tblVehicleEF	SBUS	1.1430e-003	8.6000e-005
tblVehicleEF	SBUS	1.9120e-003	4.2200e-004
tblVehicleEF	SBUS	0.03	8.6660e-003
tblVehicleEF	SBUS	2.25	0.70
tblVehicleEF	SBUS	5.9700e-004	1.2500e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.72	0.07
tblVehicleEF	UBUS	0.26	1.52
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	3.57	11.42
tblVehicleEF	UBUS	7.08	0.83
tblVehicleEF	UBUS	2,018.95	1,603.69
tblVehicleEF	UBUS	104.71	9.21
tblVehicleEF	UBUS	5.87	0.69
tblVehicleEF	UBUS	14.44	0.10
tblVehicleEF	UBUS	0.59	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	4.9940e-003
tblVehicleEF	UBUS	1.1330e-003	5.3000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8010e-003
tblVehicleEF	UBUS	0.10	4.7760e-003

tblVehicleEF	UBUS	1.0420e-003	4.9000e-005
tblVehicleEF	UBUS	1.5560e-003	6.3800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.0220e-003	4.9700e-004
tblVehicleEF	UBUS	0.30	0.02
tblVehicleEF	UBUS	7.6000e-003	0.08
tblVehicleEF	UBUS	0.56	0.06
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.1750e-003	9.1000e-005
tblVehicleEF	UBUS	1.5560e-003	6.3800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.0220e-003	4.9700e-004
tblVehicleEF	UBUS	0.59	1.55
tblVehicleEF	UBUS	7.6000e-003	0.08
tblVehicleEF	UBUS	0.61	0.07
tblVehicleEF	UBUS	0.26	1.52
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	3.59	11.42
tblVehicleEF	UBUS	5.76	0.68
tblVehicleEF	UBUS	2,018.95	1,603.69
tblVehicleEF	UBUS	104.71	8.95
tblVehicleEF	UBUS	5.63	0.69
tblVehicleEF	UBUS	14.37	0.09
tblVehicleEF	UBUS	0.59	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	4.9940e-003
tblVehicleEF	UBUS	1.1330e-003	5.3000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8010e-003
tblVehicleEF	UBUS	0.10	4.7760e-003

tblVehicleEF	UBUS	1.0420e-003	4.9000e-005
tblVehicleEF	UBUS	3.7840e-003	1.4450e-003
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.7950e-003	8.0900e-004
tblVehicleEF	UBUS	0.30	0.02
tblVehicleEF	UBUS	6.7170e-003	0.07
tblVehicleEF	UBUS	0.49	0.05
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.1520e-003	8.9000e-005
tblVehicleEF	UBUS	3.7840e-003	1.4450e-003
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.7950e-003	8.0900e-004
tblVehicleEF	UBUS	0.59	1.55
tblVehicleEF	UBUS	6.7170e-003	0.07
tblVehicleEF	UBUS	0.54	0.06
tblVehicleEF	UBUS	0.26	1.52
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	3.55	11.42
tblVehicleEF	UBUS	8.16	0.95
tblVehicleEF	UBUS	2,018.95	1,603.69
tblVehicleEF	UBUS	104.71	9.43
tblVehicleEF	UBUS	5.96	0.69
tblVehicleEF	UBUS	14.48	0.11
tblVehicleEF	UBUS	0.59	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	4.9940e-003
tblVehicleEF	UBUS	1.1330e-003	5.3000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8010e-003
tblVehicleEF	UBUS	0.10	4.7760e-003

tblVehicleEF	UBUS	1.0420e-003	4.9000e-005
tblVehicleEF	UBUS	1.0480e-003	4.8800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	4.0800e-004	2.2200e-004
tblVehicleEF	UBUS	0.30	0.02
tblVehicleEF	UBUS	9.4720e-003	0.10
tblVehicleEF	UBUS	0.61	0.07
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.1930e-003	9.3000e-005
tblVehicleEF	UBUS	1.0480e-003	4.8800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	4.0800e-004	2.2200e-004
tblVehicleEF	UBUS	0.58	1.55
tblVehicleEF	UBUS	9.4720e-003	0.10
tblVehicleEF	UBUS	0.66	0.07
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	5.24
tblVehicleTrips	ST_TR	42.04	151.20
tblVehicleTrips	SU_TR	5.86	5.24
tblVehicleTrips	SU_TR	20.43	151.20
tblVehicleTrips	WD_TR	6.65	5.24
tblVehicleTrips	WD_TR	44.32	151.20

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6903	39.4448	29.7072	0.0652	18.2141	1.6375	19.8275	9.9699	1.5066	11.4543	0.0000	6,346.3124	6,346.3124	1.9717	0.0000	6,395.6059
2023	3.0975	23.4808	30.1913	0.0929	5.3004	0.7369	6.0373	1.4228	0.6931	2.1159	0.0000	9,446.9800	9,446.9800	0.9366	0.0000	9,470.3938
2024	50.5577	23.5841	33.1472	0.1014	6.2123	0.7157	6.9279	1.6647	0.6763	2.3410	0.0000	10,284.3681	10,284.3681	0.9567	0.0000	10,308.2858
2025	50.3772	22.2514	32.4539	0.0993	6.2123	0.6198	6.8322	1.6647	0.5856	2.2503	0.0000	10,082.1180	10,082.1180	0.9493	0.0000	10,105.8516
Maximum	**50.5577**	**39.4448**	**33.1472**	**0.1014**	**18.2141**	**1.6375**	**19.8275**	**9.9699**	**1.5066**	**11.4543**	**0.0000**	**10,284.3681**	**10,284.3681**	**1.9717**	**0.0000**	**10,308.2858**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.8270	4.1852	33.6648	0.0652	7.8635	0.1042	7.9264	4.2827	0.1040	4.3456	0.0000	6,346.3124	6,346.3124	1.9717	0.0000	6,395.6059
2023	2.0632	11.7472	31.5887	0.0929	5.0309	0.1302	5.1611	1.3566	0.1277	1.4843	0.0000	9,446.9800	9,446.9800	0.9366	0.0000	9,470.3938
2024	49.6060	12.7519	34.6074	0.1014	5.8953	0.1877	6.0830	1.5869	0.1848	1.7716	0.0000	10,284.3681	10,284.3681	0.9567	0.0000	10,308.2858
2025	49.5136	12.3545	33.9843	0.0993	5.8953	0.1710	6.0663	1.5869	0.1681	1.7550	0.0000	10,082.1180	10,082.1180	0.9493	0.0000	10,105.8516
Maximum	**49.6060**	**12.7519**	**34.6074**	**0.1014**	**7.8635**	**0.1877**	**7.9264**	**4.2827**	**0.1848**	**4.3456**	**0.0000**	**10,284.3681**	**10,284.3681**	**1.9717**	**0.0000**	**10,308.2858**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.30**	**62.27**	**-6.65**	**0.00**	**31.31**	**84.01**	**36.31**	**40.14**	**83.11**	**48.48**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	265.8485	6.0756	378.6677	0.6360		46.9450	46.9450		46.9450	46.9450	5,064.3620	2,332.0864	7,396.4484	7.0168	0.3580	7,678.5408
Energy	0.1567	1.3398	0.5727	8.5500e-003		0.1083	0.1083		0.1083	0.1083		1,709.8824	1,709.8824	0.0328	0.0314	1,720.0434
Mobile	7.2995	8.8492	63.4420	0.2004	21.9068	0.1259	22.0327	5.8509	0.1172	5.9681		20,550.6183	20,550.6183	0.9988		20,575.5883
Stationary	2.0018	5.5958	5.1049	9.6200e-003		0.2945	0.2945		0.2945	0.2945		1,024.2072	1,024.2072	0.1436		1,027.7971
Total	**275.3065**	**21.8603**	**447.7873**	**0.8546**	**21.9068**	**47.4737**	**69.3805**	**5.8509**	**47.4650**	**53.3159**	**5,064.3620**	**25,616.7943**	**30,681.1563**	**8.1919**	**0.3893**	**31,001.9695**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.0361	0.5750	49.9374	2.6400e-003		0.2770	0.2770		0.2770	0.2770	0.0000	90.0276	90.0276	0.0865	0.0000	92.1892
Energy	0.1238	1.0580	0.4521	6.7500e-003		0.0855	0.0855		0.0855	0.0855		1,350.2368	1,350.2368	0.0259	0.0248	1,358.2606
Mobile	6.4990	5.8947	42.1635	0.1130	12.1019	0.0759	12.1778	3.2322	0.0706	3.3028		11,584.0017	11,584.0017	0.7003		11,601.5085
Stationary	2.0018	5.5958	5.1049	9.6200e-003		0.2945	0.2945		0.2945	0.2945		1,024.2072	1,024.2072	0.1436		1,027.7971
Total	**25.6607**	**13.1235**	**97.6579**	**0.1320**	**12.1019**	**0.7329**	**12.8347**	**3.2322**	**0.7276**	**3.9598**	**0.0000**	**14,048.4732**	**14,048.4732**	**0.9562**	**0.0248**	**14,079.7553**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	90.68	39.97	78.19	84.55	44.76	98.46	81.50	44.76	98.47	92.57	100.00	45.16	54.21	88.33	93.64	54.58

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	4/29/2022	5	85	
2	Site Preparation	Site Preparation	5/1/2022	6/1/2022	5	23	
3	Grading	Grading	6/3/2022	12/30/2022	5	151	
4	Paving	Paving	1/1/2023	2/1/2023	5	23	
5	Building Construction	Building Construction	2/2/2023	5/2/2025	5	587	
6	Architectural Coating	Architectural Coating	9/1/2024	5/15/2025	5	184	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 377.5

Acres of Paving: 6.27

Residential Indoor: 1,225,125; Residential Outdoor: 408,375; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	688.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	325.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	554.00	111.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	111.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7517	0.0000	1.7517	0.2652	0.0000	0.2652			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**1.7517**	**1.2427**	**2.9944**	**0.2652**	**1.1553**	**1.4205**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0646	2.1622	1.1589	6.3300e-003	0.1406	6.3400e-003	0.1469	0.0385	6.0600e-003	0.0445		723.4432	723.4432	0.0945		725.8048
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0362	0.0198	0.2682	1.0700e-003	0.1232	7.0000e-004	0.1239	0.0327	6.5000e-004	0.0333		106.8975	106.8975	1.8100e-003		106.9427
Total	**0.1008**	**2.1820**	**1.4270**	**7.4000e-003**	**0.2638**	**7.0400e-003**	**0.2709**	**0.0712**	**6.7100e-003**	**0.0779**		**830.3407**	**830.3407**	**0.0963**		**832.7476**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust					0.7489	0.0000	0.7489	0.1134	0.0000	0.1134			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**0.7489**	**0.0616**	**0.8105**	**0.1134**	**0.0616**	**0.1750**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0646	2.1622	1.1589	6.3300e-003	0.1342	6.3400e-003	0.1405	0.0369	6.0600e-003	0.0430		723.4432	723.4432	0.0945		725.8048
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0362	0.0198	0.2682	1.0700e-003	0.1168	7.0000e-004	0.1175	0.0311	6.5000e-004	0.0318		106.8975	106.8975	1.8100e-003		106.9427
Total	**0.1008**	**2.1820**	**1.4270**	**7.4000e-003**	**0.2510**	**7.0400e-003**	**0.2580**	**0.0680**	**6.7100e-003**	**0.0747**		**830.3407**	**830.3407**	**0.0963**		**832.7476**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655

Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0435	0.0238	0.3218	1.2900e-003	0.1479	8.5000e-004	0.1487	0.0392	7.8000e-004	0.0400		128.2770	128.2770	2.1700e-003		128.3313
Total	**0.0435**	**0.0238**	**0.3218**	**1.2900e-003**	**0.1479**	**8.5000e-004**	**0.1487**	**0.0392**	**7.8000e-004**	**0.0400**		**128.2770**	**128.2770**	**2.1700e-003**		**128.3313**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7233	0.0000	7.7233	4.2454	0.0000	4.2454			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**7.7233**	**0.0621**	**7.7854**	**4.2454**	**0.0621**	**4.3075**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0435	0.0238	0.3218	1.2900e-003	0.1402	8.5000e-004	0.1410	0.0373	7.8000e-004	0.0381		128.2770	128.2770	2.1700e-003		128.3313
Total	**0.0435**	**0.0238**	**0.3218**	**1.2900e-003**	**0.1402**	**8.5000e-004**	**0.1410**	**0.0373**	**7.8000e-004**	**0.0381**		**128.2770**	**128.2770**	**2.1700e-003**		**128.3313**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6753	0.0000	8.6753	3.5968	0.0000	3.5968			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6753**	**1.6349**	**10.3102**	**3.5968**	**1.5041**	**5.1009**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0172	0.5750	0.3082	1.6800e-003	0.0374	1.6800e-003	0.0391	0.0102	1.6100e-003	0.0118		192.3718	192.3718	0.0251		192.9998
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0264	0.3575	1.4300e-003	0.1643	9.4000e-004	0.1652	0.0436	8.6000e-004	0.0444		142.5300	142.5300	2.4100e-003		142.5903
Total	**0.0655**	**0.6014**	**0.6657**	**3.1100e-003**	**0.2017**	**2.6200e-003**	**0.2043**	**0.0538**	**2.4700e-003**	**0.0563**		**334.9018**	**334.9018**	**0.0275**		**335.5901**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7087	0.0000	3.7087	1.5376	0.0000	1.5376			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**3.7087**	**0.1015**	**3.8102**	**1.5376**	**0.1015**	**1.6392**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0172	0.5750	0.3082	1.6800e-003	0.0357	1.6800e-003	0.0374	9.8100e-003	1.6100e-003	0.0114		192.3718	192.3718	0.0251		192.9998
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0264	0.3575	1.4300e-003	0.1557	9.4000e-004	0.1567	0.0415	8.6000e-004	0.0423		142.5300	142.5300	2.4100e-003		142.5903
Total	**0.0655**	**0.6014**	**0.6657**	**3.1100e-003**	**0.1914**	**2.6200e-003**	**0.1940**	**0.0513**	**2.4700e-003**	**0.0538**		**334.9018**	**334.9018**	**0.0275**		**335.5901**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0729					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1056**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0180	0.2503	1.0300e-003	0.1232	6.9000e-004	0.1239	0.0327	6.4000e-004	0.0333		102.8546	102.8546	1.6400e-003		102.8956
Total	**0.0343**	**0.0180**	**0.2503**	**1.0300e-003**	**0.1232**	**6.9000e-004**	**0.1239**	**0.0327**	**6.4000e-004**	**0.0333**		**102.8546**	**102.8546**	**1.6400e-003**		**102.8956**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0729					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3534**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0180	0.2503	1.0300e-003	0.1168	6.9000e-004	0.1175	0.0311	6.4000e-004	0.0318		102.8546	102.8546	1.6400e-003		102.8956
Total	**0.0343**	**0.0180**	**0.2503**	**1.0300e-003**	**0.1168**	**6.9000e-004**	**0.1175**	**0.0311**	**6.4000e-004**	**0.0318**		**102.8546**	**102.8546**	**1.6400e-003**		**102.8956**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2576	8.4321	4.7046	0.0279	0.7494	0.0116	0.7610	0.2157	0.0111	0.2267		3,093.0053	3,093.0053	0.2682		3,099.7100
Worker	1.2671	0.6638	9.2427	0.0381	4.5510	0.0256	4.5766	1.2071	0.0236	1.2307		3,798.7648	3,798.7648	0.0605		3,800.2778
Total	**1.5247**	**9.0959**	**13.9473**	**0.0660**	**5.3004**	**0.0372**	**5.3376**	**1.4228**	**0.0347**	**1.4574**		**6,891.7701**	**6,891.7701**	**0.3287**		**6,899.9877**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5385	2.6513	17.6413	0.0269		0.0930	0.0930		0.0930	0.0930	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.5385**	**2.6513**	**17.6413**	**0.0269**		**0.0930**	**0.0930**		**0.0930**	**0.0930**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2576	8.4321	4.7046	0.0279	0.7172	0.0116	0.7288	0.2078	0.0111	0.2188		3,093.0053	3,093.0053	0.2682		3,099.7100
Worker	1.2671	0.6638	9.2427	0.0381	4.3137	0.0256	4.3393	1.1489	0.0236	1.1725		3,798.7648	3,798.7648	0.0605		3,800.2778
Total	**1.5247**	**9.0959**	**13.9473**	**0.0660**	**5.0309**	**0.0372**	**5.0681**	**1.3566**	**0.0347**	**1.3913**		**6,891.7701**	**6,891.7701**	**0.3287**		**6,899.9877**

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2500	8.1955	4.7838	0.0276	0.7495	0.0112	0.7606	0.2157	0.0107	0.2263		3,064.9907	3,064.9907	0.2705		3,071.7526
Worker	1.2073	0.6048	8.6527	0.0366	4.5510	0.0252	4.5762	1.2071	0.0232	1.2304		3,650.7604	3,650.7604	0.0550		3,652.1356
Total	**1.4572**	**8.8004**	**13.4365**	**0.0642**	**5.3004**	**0.0364**	**5.3368**	**1.4228**	**0.0339**	**1.4567**		**6,715.7511**	**6,715.7511**	**0.3255**		**6,723.8883**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5199	2.6115	17.6271	0.0270		0.0853	0.0853		0.0853	0.0853	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.5199**	**2.6115**	**17.6271**	**0.0270**		**0.0853**	**0.0853**		**0.0853**	**0.0853**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2500	8.1955	4.7838	0.0276	0.7173	0.0112	0.7285	0.2078	0.0107	0.2184		3,064.9907	3,064.9907	0.2705		3,071.7526
Worker	1.2073	0.6048	8.6527	0.0366	4.3137	0.0252	4.3389	1.1489	0.0232	1.1721		3,650.7604	3,650.7604	0.0550		3,652.1356
Total	**1.4572**	**8.8004**	**13.4365**	**0.0642**	**5.0310**	**0.0364**	**5.0674**	**1.3567**	**0.0339**	**1.3905**		**6,715.7511**	**6,715.7511**	**0.3255**		**6,723.8883**

3.6 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2434	7.9697	4.8641	0.0273	0.7495	0.0108	0.7603	0.2157	0.0103	0.2260		3,037.6446	3,037.6446	0.2727		3,044.4608
Worker	1.1573	0.5553	8.0776	0.0351	4.5510	0.0250	4.5759	1.2071	0.0230	1.2301		3,504.4049	3,504.4049	0.0503		3,505.6627
Total	**1.4007**	**8.5249**	**12.9417**	**0.0624**	**5.3005**	**0.0357**	**5.3362**	**1.4228**	**0.0333**	**1.4561**		**6,542.0495**	**6,542.0495**	**0.3230**		**6,550.1235**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5038	2.5728	17.6150	0.0270		0.0788	0.0788		0.0788	0.0788	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.5038**	**2.5728**	**17.6150**	**0.0270**		**0.0788**	**0.0788**		**0.0788**	**0.0788**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2434	7.9697	4.8641	0.0273	0.7174	0.0108	0.7282	0.2078	0.0103	0.2181		3,037.6446	3,037.6446	0.2727		3,044.4608
Worker	1.1573	0.5553	8.0776	0.0351	4.3137	0.0250	4.3386	1.1489	0.0230	1.1719		3,504.4049	3,504.4049	0.0503		3,505.6627
Total	**1.4007**	**8.5249**	**12.9417**	**0.0624**	**5.0311**	**0.0357**	**5.0668**	**1.3567**	**0.0333**	**1.3900**		**6,542.0495**	**6,542.0495**	**0.3230**		**6,550.1235**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.2063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**47.3871**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2419	0.1212	1.7337	7.3300e-003	0.9118	5.0600e-003	0.9169	0.2419	4.6500e-003	0.2465		731.4700	731.4700	0.0110		731.7456
Total	**0.2419**	**0.1212**	**1.7337**	**7.3300e-003**	**0.9118**	**5.0600e-003**	**0.9169**	**0.2419**	**4.6500e-003**	**0.2465**		**731.4700**	**731.4700**	**0.0110**		**731.7456**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.2063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**47.3871**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2419	0.1212	1.7337	7.3300e-003	0.8643	5.0600e-003	0.8694	0.2302	4.6500e-003	0.2348		731.4700	731.4700	0.0110		731.7456
Total	**0.2419**	**0.1212**	**1.7337**	**7.3300e-003**	**0.8643**	**5.0600e-003**	**0.8694**	**0.2302**	**4.6500e-003**	**0.2348**		**731.4700**	**731.4700**	**0.0110**		**731.7456**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.2063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**47.3772**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2319	0.1113	1.6184	7.0300e-003	0.9118	5.0000e-003	0.9168	0.2419	4.6000e-003	0.2465		702.1461	702.1461	0.0101		702.3981
Total	**0.2319**	**0.1113**	**1.6184**	**7.0300e-003**	**0.9118**	**5.0000e-003**	**0.9168**	**0.2419**	**4.6000e-003**	**0.2465**		**702.1461**	**702.1461**	**0.0101**		**702.3981**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.2063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**47.3772**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2319	0.1113	1.6184	7.0300e-003	0.8643	5.0000e-003	0.8693	0.2302	4.6000e-003	0.2348		702.1461	702.1461	0.0101		702.3981
Total	**0.2319**	**0.1113**	**1.6184**	**7.0300e-003**	**0.8643**	**5.0000e-003**	**0.8693**	**0.2302**	**4.6000e-003**	**0.2348**		**702.1461**	**702.1461**	**0.0101**		**702.3981**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Pedestrian Network

Implement Trip Reduction Program

Transit Subsidy

Encourage Telecommuting and Alternative Work Schedules

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.4990	5.8947	42.1635	0.1130	12.1019	0.0759	12.1778	3.2322	0.0706	3.3028		11,584.0017	11,584.0017	0.7003		11,601.5085
Unmitigated	7.2995	8.8492	63.4420	0.2004	21.9068	0.1259	22.0327	5.8509	0.1172	5.9681		20,550.6183	20,550.6183	0.9988		20,575.5883

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	3,170.20	3,170.20	3170.20	8,246,147	4,649,372
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	756.00	756.00	756.00	2,109,340	1,071,245

Total	3,926.20	3,926.20	3,926.20	10,355,487	5,720,617

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-[illegible]	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824
Enclosed Parking Structure	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824
Parking Lot	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824
Strip Mall	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1238	1.0580	0.4521	6.7500e-003		0.0855	0.0855		0.0855	0.0855		1,350.2368	1,350.2368	0.0259	0.0248	1,358.2606
NaturalGas Unmitigated	0.1567	1.3398	0.5727	8.5500e-003		0.1083	0.1083		0.1083	0.1083		1,709.8824	1,709.8824	0.0328	0.0314	1,720.0434

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	14471	0.1561	1.3336	0.5675	8.5100e-003		0.1078	0.1078		0.1078	0.1078		1,702.4690	1,702.4690	0.0326	0.0312	1,712.5860
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	63.0137	6.8000e-004	6.1800e-003	5.1900e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		7.4134	7.4134	1.4000e-004	1.4000e-004	7.4574
Total		**0.1567**	**1.3398**	**0.5727**	**8.5500e-003**		**0.1083**	**0.1083**		**0.1083**	**0.1083**		**1,709.8824**	**1,709.8824**	**0.0328**	**0.0314**	**1,720.0434**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	11.43	0.1233	1.0534	0.4482	6.7200e-003		0.0852	0.0852		0.0852	0.0852		1,344.7090	1,344.7090	0.0258	0.0247	1,352.6999
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0469863	5.1000e-004	4.6100e-003	3.8700e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004		5.5278	5.5278	1.1000e-004	1.0000e-004	5.5607
Total		**0.1238**	**1.0580**	**0.4521**	**6.7500e-003**		**0.0855**	**0.0855**		**0.0855**	**0.0855**		**1,350.2368**	**1,350.2368**	**0.0259**	**0.0248**	**1,358.2606**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.0361	0.5750	49.9374	2.6400e-003		0.2770	0.2770		0.2770	0.2770	0.0000	90.0276	90.0276	0.0865	0.0000	92.1892
Unmitigated	265.8485	6.0756	378.6677	0.6360		46.9450	46.9450		46.9450	46.9450	5,064.3620	2,332.0864	7,396.4484	7.0168	0.3580	7,678.5408

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3797					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1526					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	248.8124	5.5006	328.7303	0.6333		46.6681	46.6681		46.6681	46.6681	5,064.3620	2,242.0588	7,306.4208	6.9303	0.3580	7,586.3516
Landscaping	1.5038	0.5750	49.9374	2.6400e-003		0.2770	0.2770		0.2770	0.2770		90.0276	90.0276	0.0865		92.1892

Total	**265.8485**	**6.0756**	**378.6677**	**0.6360**		**46.9450**	**46.9450**		**46.9450**	**46.9450**	**5,064.3620**	**2,332.0864**	**7,396.4484**	**7.0168**	**0.3580**	**7,678.5408**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3797					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1526					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5038	0.5750	49.9374	2.6400e-003		0.2770	0.2770		0.2770	0.2770		90.0276	90.0276	0.0865		92.1892
Total	**17.0361**	**0.5750**	**49.9374**	**2.6400e-003**		**0.2770**	**0.2770**		**0.2770**	**0.2770**	**0.0000**	**90.0276**	**90.0276**	**0.0865**	**0.0000**	**92.1892**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	4	50	305	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (300 - 600 HP)	2.0018	5.5958	5.1049	9.6200e-003		0.2945	0.2945		0.2945	0.2945		1,024.2072	1,024.2072	0.1436		1,027.7971
Total	**2.0018**	**5.5958**	**5.1049**	**9.6200e-003**		**0.2945**	**0.2945**		**0.2945**	**0.2945**		**1,024.2072**	**1,024.2072**	**0.1436**		**1,027.7971**

11.0 Vegetation

Woodland Park - San Mateo County, Winter

Woodland Park

San Mateo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	625.00	Space	5.63	250,000.00	0
Parking Lot	71.00	Space	0.64	28,400.00	0
Apartments Mid Rise	605.00	Dwelling Unit	15.92	605,000.00	1730
Strip Mall	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	163	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on the 2020 PG&E CRSR

Land Use -

Construction Phase - per construction questionnaire

Demolition -

Grading -

Vehicle Trips - per traffic analysis

Energy Use -

Construction Off-road Equipment Mitigation - per BAAQMD basic control measures

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation -

Energy Mitigation - Per title 24 2019

Water Mitigation -

Waste Mitigation - per AB 939

Stationary Sources - Emergency Generators and Fire Pumps - Fire Pump Station for emergency purposes

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	20.00	184.00
tblConstructionPhase	NumDays	370.00	587.00
tblConstructionPhase	NumDays	20.00	85.00
tblConstructionPhase	NumDays	35.00	151.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	10.00	23.00
tblGrading	MaterialImported	0.00	2,600.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	163
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	305.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	4.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
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tblVehicleEF	HHD	2.90	0.95
tblVehicleEF	HHD	11.27	0.03
tblVehicleEF	HHD	2,779.71	931.63
tblVehicleEF	HHD	1,748.63	1,585.25
tblVehicleEF	HHD	35.35	0.28

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tblVehicleEF	HHD	0.03	0.03
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tblVehicleEF	LDA	0.04	0.05
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tblVehicleEF	LDT1	0.01	0.01

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tblVehicleEF	LDT1	0.06	0.15
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tblVehicleEF	LDT1	2.3960e-003	1.7470e-003
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tblVehicleEF	LDT1	0.12	0.10
tblVehicleEF	LDT1	0.06	0.00
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tblVehicleEF	LDT1	0.09	0.33
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tblVehicleEF	LDT1	6.3000e-004	5.4800e-004
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tblVehicleEF	LDT1	0.12	0.10
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	0.09	0.33
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tblVehicleEF	LDT1	2.6060e-003	1.9000e-003
tblVehicleEF	LDT1	1.6770e-003	1.3180e-003
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tblVehicleEF	LDT1	0.02	0.00
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tblVehicleEF	LDT1	2.5880e-003	2.5980e-003
tblVehicleEF	LDT1	6.3800e-004	5.6200e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.12	0.10
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.13	0.45
tblVehicleEF	LDT1	0.10	0.24
tblVehicleEF	LDT2	3.4690e-003	1.9400e-003
tblVehicleEF	LDT2	4.0940e-003	0.05
tblVehicleEF	LDT2	0.51	0.56
tblVehicleEF	LDT2	1.03	2.54
tblVehicleEF	LDT2	297.27	275.26
tblVehicleEF	LDT2	69.53	59.15

tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.06	0.19
tblVehicleEF	LDT2	1.6830e-003	1.3140e-003
tblVehicleEF	LDT2	2.4040e-003	1.6980e-003
tblVehicleEF	LDT2	1.5480e-003	1.2100e-003
tblVehicleEF	LDT2	2.2100e-003	1.5610e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	8.6100e-003	7.4300e-003
tblVehicleEF	LDT2	0.06	0.29
tblVehicleEF	LDT2	0.06	0.22
tblVehicleEF	LDT2	2.9750e-003	2.7230e-003
tblVehicleEF	LDT2	7.1200e-004	5.8500e-004
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.29
tblVehicleEF	LDT2	0.06	0.24
tblVehicleEF	LDT2	3.7850e-003	2.1460e-003
tblVehicleEF	LDT2	3.4550e-003	0.04
tblVehicleEF	LDT2	0.58	0.64
tblVehicleEF	LDT2	0.83	2.00
tblVehicleEF	LDT2	315.68	288.42
tblVehicleEF	LDT2	69.53	58.18
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.06	0.17
tblVehicleEF	LDT2	1.6830e-003	1.3140e-003
tblVehicleEF	LDT2	2.4040e-003	1.6980e-003

tblVehicleEF	LDT2	1.5480e-003	1.2100e-003
tblVehicleEF	LDT2	2.2100e-003	1.5610e-003
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	9.3910e-003	8.0810e-003
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.05	0.19
tblVehicleEF	LDT2	3.1600e-003	2.8530e-003
tblVehicleEF	LDT2	7.0900e-004	5.7600e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.05	0.20
tblVehicleEF	LDT2	3.4080e-003	1.8850e-003
tblVehicleEF	LDT2	4.5490e-003	0.05
tblVehicleEF	LDT2	0.51	0.56
tblVehicleEF	LDT2	1.18	2.92
tblVehicleEF	LDT2	296.14	274.45
tblVehicleEF	LDT2	69.53	59.83
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.07	0.21
tblVehicleEF	LDT2	1.6830e-003	1.3140e-003
tblVehicleEF	LDT2	2.4040e-003	1.6980e-003
tblVehicleEF	LDT2	1.5480e-003	1.2100e-003
tblVehicleEF	LDT2	2.2100e-003	1.5610e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08

tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	8.4570e-003	7.3030e-003
tblVehicleEF	LDT2	0.07	0.36
tblVehicleEF	LDT2	0.06	0.25
tblVehicleEF	LDT2	2.9640e-003	2.7150e-003
tblVehicleEF	LDT2	7.1500e-004	5.9200e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.36
tblVehicleEF	LDT2	0.07	0.27
tblVehicleEF	LHD1	4.4510e-003	4.6830e-003
tblVehicleEF	LHD1	0.01	5.8360e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.69	0.51
tblVehicleEF	LHD1	1.94	0.97
tblVehicleEF	LHD1	8.97	8.57
tblVehicleEF	LHD1	656.10	751.95
tblVehicleEF	LHD1	28.64	11.12
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.58	0.34
tblVehicleEF	LHD1	0.74	0.26
tblVehicleEF	LHD1	8.6900e-004	8.5300e-004
tblVehicleEF	LHD1	0.01	9.7990e-003
tblVehicleEF	LHD1	0.01	7.0500e-003
tblVehicleEF	LHD1	7.3000e-004	2.2400e-004
tblVehicleEF	LHD1	8.3100e-004	8.1600e-004
tblVehicleEF	LHD1	2.5810e-003	2.4500e-003

tblVehicleEF	LHD1	0.01	6.6990e-003
tblVehicleEF	LHD1	6.7100e-004	2.0600e-004
tblVehicleEF	LHD1	1.4780e-003	1.0710e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	9.5600e-004	6.9000e-004
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.25	0.33
tblVehicleEF	LHD1	0.17	0.05
tblVehicleEF	LHD1	8.9000e-005	8.3000e-005
tblVehicleEF	LHD1	6.4190e-003	7.3400e-003
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tblVehicleEF	LHD1	1.4780e-003	1.0710e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	9.5600e-004	6.9000e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.25	0.33
tblVehicleEF	LHD1	0.19	0.06
tblVehicleEF	LHD1	4.4510e-003	4.6960e-003
tblVehicleEF	LHD1	0.01	5.9540e-003
tblVehicleEF	LHD1	0.01	9.7570e-003
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.70	0.52
tblVehicleEF	LHD1	1.79	0.90
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tblVehicleEF	LHD1	656.10	751.97
tblVehicleEF	LHD1	28.64	11.00
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.55	0.33

tblVehicleEF	LHD1	0.69	0.24
tblVehicleEF	LHD1	8.6900e-004	8.5300e-004
tblVehicleEF	LHD1	0.01	9.7990e-003
tblVehicleEF	LHD1	0.01	7.0500e-003
tblVehicleEF	LHD1	7.3000e-004	2.2400e-004
tblVehicleEF	LHD1	8.3100e-004	8.1600e-004
tblVehicleEF	LHD1	2.5810e-003	2.4500e-003
tblVehicleEF	LHD1	0.01	6.6990e-003
tblVehicleEF	LHD1	6.7100e-004	2.0600e-004
tblVehicleEF	LHD1	3.5060e-003	2.5700e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.5870e-003	1.1640e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.24	0.32
tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD1	8.9000e-005	8.3000e-005
tblVehicleEF	LHD1	6.4190e-003	7.3410e-003
tblVehicleEF	LHD1	3.1900e-004	1.0900e-004
tblVehicleEF	LHD1	3.5060e-003	2.5700e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.5870e-003	1.1640e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.24	0.32
tblVehicleEF	LHD1	0.18	0.05
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tblVehicleEF	LHD1	0.01	5.7590e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.14	0.18

tblVehicleEF	LHD1	0.68	0.50
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tblVehicleEF	LHD1	8.97	8.57
tblVehicleEF	LHD1	656.10	751.94
tblVehicleEF	LHD1	28.64	11.22
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.60	0.35
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tblVehicleEF	LHD1	8.6900e-004	8.5300e-004
tblVehicleEF	LHD1	0.01	9.7990e-003
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tblVehicleEF	LHD1	7.3000e-004	2.2400e-004
tblVehicleEF	LHD1	8.3100e-004	8.1600e-004
tblVehicleEF	LHD1	2.5810e-003	2.4500e-003
tblVehicleEF	LHD1	0.01	6.6990e-003
tblVehicleEF	LHD1	6.7100e-004	2.0600e-004
tblVehicleEF	LHD1	8.9400e-004	6.3900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	4.1900e-004	2.9700e-004
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.27	0.37
tblVehicleEF	LHD1	0.18	0.05
tblVehicleEF	LHD1	8.9000e-005	8.3000e-005
tblVehicleEF	LHD1	6.4190e-003	7.3400e-003
tblVehicleEF	LHD1	3.2400e-004	1.1100e-004
tblVehicleEF	LHD1	8.9400e-004	6.3900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	4.1900e-004	2.9700e-004

tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.27	0.37
tblVehicleEF	LHD1	0.20	0.06
tblVehicleEF	LHD2	2.9820e-003	2.8930e-003
tblVehicleEF	LHD2	5.8340e-003	5.4660e-003
tblVehicleEF	LHD2	4.3710e-003	5.9890e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.45	0.46
tblVehicleEF	LHD2	0.99	0.57
tblVehicleEF	LHD2	13.72	13.29
tblVehicleEF	LHD2	689.14	728.51
tblVehicleEF	LHD2	23.21	7.48
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.30	0.37
tblVehicleEF	LHD2	0.34	0.15
tblVehicleEF	LHD2	1.1500e-003	1.4140e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9090e-003	0.01
tblVehicleEF	LHD2	3.8100e-004	1.2000e-004
tblVehicleEF	LHD2	1.1000e-003	1.3530e-003
tblVehicleEF	LHD2	2.6980e-003	2.6890e-003
tblVehicleEF	LHD2	9.4570e-003	0.01
tblVehicleEF	LHD2	3.5000e-004	1.1000e-004
tblVehicleEF	LHD2	4.3600e-004	5.6800e-004
tblVehicleEF	LHD2	0.02	0.03
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tblVehicleEF	LHD2	3.0000e-004	3.7300e-004
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.05	0.17
tblVehicleEF	LHD2	0.06	0.03

tblVehicleEF	LHD2	1.3400e-004	1.2700e-004
tblVehicleEF	LHD2	6.6990e-003	7.0360e-003
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tblVehicleEF	LHD2	4.3600e-004	5.6800e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.0000e-004	3.7300e-004
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tblVehicleEF	LHD2	0.05	0.17
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tblVehicleEF	LHD2	4.1680e-003	5.6520e-003
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tblVehicleEF	LHD2	0.45	0.46
tblVehicleEF	LHD2	0.92	0.53
tblVehicleEF	LHD2	13.72	13.29
tblVehicleEF	LHD2	689.14	728.51
tblVehicleEF	LHD2	23.21	7.41
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.29	0.36
tblVehicleEF	LHD2	0.32	0.14
tblVehicleEF	LHD2	1.1500e-003	1.4140e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9090e-003	0.01
tblVehicleEF	LHD2	3.8100e-004	1.2000e-004
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tblVehicleEF	LHD2	2.6980e-003	2.6890e-003
tblVehicleEF	LHD2	9.4570e-003	0.01
tblVehicleEF	LHD2	3.5000e-004	1.1000e-004

tblVehicleEF	LHD2	1.0340e-003	1.3590e-003
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	5.0400e-004	6.3000e-004
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tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.06	0.03
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tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	5.0400e-004	6.3000e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.06	0.03
tblVehicleEF	LHD2	2.9820e-003	2.8870e-003
tblVehicleEF	LHD2	5.7930e-003	5.4330e-003
tblVehicleEF	LHD2	4.5250e-003	6.2410e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.45	0.46
tblVehicleEF	LHD2	1.05	0.60
tblVehicleEF	LHD2	13.72	13.29
tblVehicleEF	LHD2	689.14	728.50
tblVehicleEF	LHD2	23.21	7.53
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.31	0.38
tblVehicleEF	LHD2	0.35	0.16
tblVehicleEF	LHD2	1.1500e-003	1.4140e-003

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9090e-003	0.01
tblVehicleEF	LHD2	3.8100e-004	1.2000e-004
tblVehicleEF	LHD2	1.1000e-003	1.3530e-003
tblVehicleEF	LHD2	2.6980e-003	2.6890e-003
tblVehicleEF	LHD2	9.4570e-003	0.01
tblVehicleEF	LHD2	3.5000e-004	1.1000e-004
tblVehicleEF	LHD2	2.7200e-004	3.4600e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.05	0.19
tblVehicleEF	LHD2	0.06	0.03
tblVehicleEF	LHD2	1.3400e-004	1.2700e-004
tblVehicleEF	LHD2	6.6990e-003	7.0360e-003
tblVehicleEF	LHD2	2.5000e-004	7.5000e-005
tblVehicleEF	LHD2	2.7200e-004	3.4600e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3300e-004	1.6400e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.05	0.19
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	MCY	0.46	0.33
tblVehicleEF	MCY	0.16	0.26
tblVehicleEF	MCY	18.12	18.30
tblVehicleEF	MCY	10.44	9.27
tblVehicleEF	MCY	173.27	212.79
tblVehicleEF	MCY	42.90	59.80

tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1390e-003	2.1570e-003
tblVehicleEF	MCY	3.5490e-003	3.1010e-003
tblVehicleEF	MCY	1.9950e-003	2.0130e-003
tblVehicleEF	MCY	3.3260e-003	2.9050e-003
tblVehicleEF	MCY	0.60	0.60
tblVehicleEF	MCY	0.51	0.51
tblVehicleEF	MCY	0.35	0.35
tblVehicleEF	MCY	2.15	2.17
tblVehicleEF	MCY	0.43	1.71
tblVehicleEF	MCY	2.16	1.93
tblVehicleEF	MCY	2.0930e-003	2.1060e-003
tblVehicleEF	MCY	6.6300e-004	5.9200e-004
tblVehicleEF	MCY	0.60	0.60
tblVehicleEF	MCY	0.51	0.51
tblVehicleEF	MCY	0.35	0.35
tblVehicleEF	MCY	2.70	2.71
tblVehicleEF	MCY	0.43	1.71
tblVehicleEF	MCY	2.35	2.10
tblVehicleEF	MCY	0.45	0.32
tblVehicleEF	MCY	0.13	0.22
tblVehicleEF	MCY	17.05	17.20
tblVehicleEF	MCY	9.01	7.93
tblVehicleEF	MCY	173.27	210.76
tblVehicleEF	MCY	42.90	56.60
tblVehicleEF	MCY	1.01	1.01
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.1390e-003	2.1570e-003
tblVehicleEF	MCY	3.5490e-003	3.1010e-003

tblVehicleEF	MCY	1.9950e-003	2.0130e-003
tblVehicleEF	MCY	3.3260e-003	2.9050e-003
tblVehicleEF	MCY	1.79	1.80
tblVehicleEF	MCY	0.62	0.63
tblVehicleEF	MCY	0.87	0.87
tblVehicleEF	MCY	2.08	2.09
tblVehicleEF	MCY	0.39	1.55
tblVehicleEF	MCY	1.82	1.61
tblVehicleEF	MCY	2.0740e-003	2.0860e-003
tblVehicleEF	MCY	6.3000e-004	5.6000e-004
tblVehicleEF	MCY	1.79	1.80
tblVehicleEF	MCY	0.62	0.63
tblVehicleEF	MCY	0.87	0.87
tblVehicleEF	MCY	2.61	2.61
tblVehicleEF	MCY	0.39	1.55
tblVehicleEF	MCY	1.99	1.75
tblVehicleEF	MCY	0.48	0.33
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.35	19.55
tblVehicleEF	MCY	11.75	10.49
tblVehicleEF	MCY	173.27	215.03
tblVehicleEF	MCY	42.90	62.61
tblVehicleEF	MCY	1.22	1.22
tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	2.1390e-003	2.1570e-003
tblVehicleEF	MCY	3.5490e-003	3.1010e-003
tblVehicleEF	MCY	1.9950e-003	2.0130e-003
tblVehicleEF	MCY	3.3260e-003	2.9050e-003
tblVehicleEF	MCY	0.25	0.25
tblVehicleEF	MCY	0.62	0.62

tblVehicleEF	MCY	0.11	0.12
tblVehicleEF	MCY	2.22	2.24
tblVehicleEF	MCY	0.52	2.07
tblVehicleEF	MCY	2.44	2.19
tblVehicleEF	MCY	2.1150e-003	2.1280e-003
tblVehicleEF	MCY	6.9300e-004	6.2000e-004
tblVehicleEF	MCY	0.25	0.25
tblVehicleEF	MCY	0.62	0.62
tblVehicleEF	MCY	0.11	0.12
tblVehicleEF	MCY	2.79	2.80
tblVehicleEF	MCY	0.52	2.07
tblVehicleEF	MCY	2.66	2.39
tblVehicleEF	MDV	5.0930e-003	1.9550e-003
tblVehicleEF	MDV	8.0210e-003	0.05
tblVehicleEF	MDV	0.65	0.55
tblVehicleEF	MDV	1.63	2.63
tblVehicleEF	MDV	393.72	330.48
tblVehicleEF	MDV	90.82	69.96
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.12	0.21
tblVehicleEF	MDV	1.7140e-003	1.3270e-003
tblVehicleEF	MDV	2.3890e-003	1.7040e-003
tblVehicleEF	MDV	1.5790e-003	1.2230e-003
tblVehicleEF	MDV	2.1970e-003	1.5670e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.01	7.6550e-003
tblVehicleEF	MDV	0.09	0.29
tblVehicleEF	MDV	0.11	0.25

tblVehicleEF	MDV	3.9360e-003	3.2660e-003
tblVehicleEF	MDV	9.3600e-004	6.9200e-004
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.29
tblVehicleEF	MDV	0.12	0.27
tblVehicleEF	MDV	5.5440e-003	2.1630e-003
tblVehicleEF	MDV	6.7450e-003	0.05
tblVehicleEF	MDV	0.74	0.63
tblVehicleEF	MDV	1.30	2.07
tblVehicleEF	MDV	417.41	343.41
tblVehicleEF	MDV	90.82	68.94
tblVehicleEF	MDV	0.06	0.03
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.7140e-003	1.3270e-003
tblVehicleEF	MDV	2.3890e-003	1.7040e-003
tblVehicleEF	MDV	1.5790e-003	1.2230e-003
tblVehicleEF	MDV	2.1970e-003	1.5670e-003
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.01	8.3030e-003
tblVehicleEF	MDV	0.08	0.26
tblVehicleEF	MDV	0.09	0.21
tblVehicleEF	MDV	4.1740e-003	3.3940e-003
tblVehicleEF	MDV	9.3000e-004	6.8200e-004
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.11	0.09

tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.26
tblVehicleEF	MDV	0.10	0.23
tblVehicleEF	MDV	5.0120e-003	1.9020e-003
tblVehicleEF	MDV	8.9290e-003	0.06
tblVehicleEF	MDV	0.65	0.55
tblVehicleEF	MDV	1.87	3.03
tblVehicleEF	MDV	392.27	329.70
tblVehicleEF	MDV	90.82	70.68
tblVehicleEF	MDV	0.08	0.04
tblVehicleEF	MDV	0.13	0.23
tblVehicleEF	MDV	1.7140e-003	1.3270e-003
tblVehicleEF	MDV	2.3890e-003	1.7040e-003
tblVehicleEF	MDV	1.5790e-003	1.2230e-003
tblVehicleEF	MDV	2.1970e-003	1.5670e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.08
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.01	7.5430e-003
tblVehicleEF	MDV	0.11	0.36
tblVehicleEF	MDV	0.12	0.27
tblVehicleEF	MDV	3.9220e-003	3.2580e-003
tblVehicleEF	MDV	9.4000e-004	6.9900e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.11	0.36
tblVehicleEF	MDV	0.13	0.30

tblVehicleEF	MH	0.01	5.5960e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.67	0.42
tblVehicleEF	MH	3.91	1.78
tblVehicleEF	MH	1,185.18	1,419.69
tblVehicleEF	MH	56.59	16.60
tblVehicleEF	MH	0.80	0.92
tblVehicleEF	MH	0.59	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1800e-004	2.4300e-004
tblVehicleEF	MH	3.2240e-003	3.2800e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4400e-004	2.2300e-004
tblVehicleEF	MH	0.29	0.25
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.13	0.11
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	9.5900e-003	0.56
tblVehicleEF	MH	0.22	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3400e-004	1.6400e-004
tblVehicleEF	MH	0.29	0.25
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.13	0.11
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	9.5900e-003	0.56
tblVehicleEF	MH	0.24	0.09
tblVehicleEF	MH	0.01	5.7580e-003
tblVehicleEF	MH	0.02	0.02

tblVehicleEF	MH	0.69	0.44
tblVehicleEF	MH	3.60	1.64
tblVehicleEF	MH	1,185.18	1,419.71
tblVehicleEF	MH	56.59	16.36
tblVehicleEF	MH	0.76	0.88
tblVehicleEF	MH	0.54	0.21
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1800e-004	2.4300e-004
tblVehicleEF	MH	3.2240e-003	3.2800e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4400e-004	2.2300e-004
tblVehicleEF	MH	0.67	0.58
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.22	0.19
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	9.2590e-003	0.54
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.2800e-004	1.6200e-004
tblVehicleEF	MH	0.67	0.58
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.22	0.19
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	9.2590e-003	0.54
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MH	0.01	5.4930e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.65	0.41
tblVehicleEF	MH	4.18	1.90

tblVehicleEF	MH	1,185.18	1,419.67
tblVehicleEF	MH	56.59	16.80
tblVehicleEF	MH	0.82	0.94
tblVehicleEF	MH	0.62	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1800e-004	2.4300e-004
tblVehicleEF	MH	3.2240e-003	3.2800e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4400e-004	2.2300e-004
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.60
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3800e-004	1.6600e-004
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.01	0.60
tblVehicleEF	MH	0.25	0.09
tblVehicleEF	MHD	0.02	3.9340e-003
tblVehicleEF	MHD	3.2730e-003	1.4090e-003
tblVehicleEF	MHD	0.04	9.5150e-003
tblVehicleEF	MHD	0.36	0.38
tblVehicleEF	MHD	0.28	0.19
tblVehicleEF	MHD	4.58	1.06

tblVehicleEF	MHD	135.16	61.97
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tblVehicleEF	MHD	58.95	9.62
tblVehicleEF	MHD	0.35	0.34
tblVehicleEF	MHD	1.02	1.30
tblVehicleEF	MHD	10.30	1.66
tblVehicleEF	MHD	7.5000e-005	2.4000e-004
tblVehicleEF	MHD	2.9360e-003	6.2030e-003
tblVehicleEF	MHD	8.3500e-004	1.1800e-004
tblVehicleEF	MHD	7.2000e-005	2.3000e-004
tblVehicleEF	MHD	2.8030e-003	5.9280e-003
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tblVehicleEF	MHD	5.2400e-004	2.6600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.5100e-004	1.7600e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.01	0.09
tblVehicleEF	MHD	0.27	0.05
tblVehicleEF	MHD	1.3020e-003	5.8900e-004
tblVehicleEF	MHD	0.01	9.9640e-003
tblVehicleEF	MHD	6.6900e-004	9.5000e-005
tblVehicleEF	MHD	5.2400e-004	2.6600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.5100e-004	1.7600e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.01	0.09
tblVehicleEF	MHD	0.30	0.05
tblVehicleEF	MHD	0.01	3.7030e-003

tblVehicleEF	MHD	3.3280e-003	1.4490e-003
tblVehicleEF	MHD	0.04	8.9390e-003
tblVehicleEF	MHD	0.25	0.32
tblVehicleEF	MHD	0.28	0.20
tblVehicleEF	MHD	4.19	0.97
tblVehicleEF	MHD	143.32	61.95
tblVehicleEF	MHD	1,176.19	1,043.82
tblVehicleEF	MHD	58.95	9.46
tblVehicleEF	MHD	0.37	0.33
tblVehicleEF	MHD	0.98	1.24
tblVehicleEF	MHD	10.26	1.65
tblVehicleEF	MHD	6.3000e-005	2.0600e-004
tblVehicleEF	MHD	2.9360e-003	6.2030e-003
tblVehicleEF	MHD	8.3500e-004	1.1800e-004
tblVehicleEF	MHD	6.1000e-005	1.9700e-004
tblVehicleEF	MHD	2.8030e-003	5.9280e-003
tblVehicleEF	MHD	7.6800e-004	1.0900e-004
tblVehicleEF	MHD	1.2670e-003	6.4600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	6.0600e-004	3.0500e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.01	0.08
tblVehicleEF	MHD	0.26	0.05
tblVehicleEF	MHD	1.3780e-003	5.8800e-004
tblVehicleEF	MHD	0.01	9.9640e-003
tblVehicleEF	MHD	6.6300e-004	9.4000e-005
tblVehicleEF	MHD	1.2670e-003	6.4600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.02

tblVehicleEF	MHD	6.0600e-004	3.0500e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.01	0.08
tblVehicleEF	MHD	0.28	0.05
tblVehicleEF	MHD	0.02	4.1630e-003
tblVehicleEF	MHD	3.2380e-003	1.3830e-003
tblVehicleEF	MHD	0.04	9.9090e-003
tblVehicleEF	MHD	0.48	0.45
tblVehicleEF	MHD	0.28	0.19
tblVehicleEF	MHD	4.89	1.13
tblVehicleEF	MHD	124.24	62.13
tblVehicleEF	MHD	1,176.19	1,043.80
tblVehicleEF	MHD	58.95	9.74
tblVehicleEF	MHD	0.34	0.35
tblVehicleEF	MHD	1.04	1.32
tblVehicleEF	MHD	10.34	1.66
tblVehicleEF	MHD	9.1000e-005	2.8900e-004
tblVehicleEF	MHD	2.9360e-003	6.2030e-003
tblVehicleEF	MHD	8.3500e-004	1.1800e-004
tblVehicleEF	MHD	8.7000e-005	2.7600e-004
tblVehicleEF	MHD	2.8030e-003	5.9280e-003
tblVehicleEF	MHD	7.6800e-004	1.0900e-004
tblVehicleEF	MHD	3.1900e-004	1.6000e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.5200e-004	7.5000e-005
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.29	0.05
tblVehicleEF	MHD	1.1990e-003	5.9000e-004

tblVehicleEF	MHD	0.01	9.9640e-003
tblVehicleEF	MHD	6.7500e-004	9.6000e-005
tblVehicleEF	MHD	3.1900e-004	1.6000e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.5200e-004	7.5000e-005
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.31	0.06
tblVehicleEF	OBUS	0.01	6.7000e-003
tblVehicleEF	OBUS	4.6710e-003	2.5540e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.24	0.63
tblVehicleEF	OBUS	0.35	0.31
tblVehicleEF	OBUS	4.29	1.48
tblVehicleEF	OBUS	119.16	103.58
tblVehicleEF	OBUS	1,289.22	1,286.62
tblVehicleEF	OBUS	64.48	12.91
tblVehicleEF	OBUS	0.26	0.44
tblVehicleEF	OBUS	0.95	1.48
tblVehicleEF	OBUS	3.00	1.21
tblVehicleEF	OBUS	2.4000e-005	1.4300e-004
tblVehicleEF	OBUS	2.9450e-003	7.6570e-003
tblVehicleEF	OBUS	8.9400e-004	1.4400e-004
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tblVehicleEF	OBUS	2.7980e-003	7.3130e-003
tblVehicleEF	OBUS	8.2200e-004	1.3300e-004
tblVehicleEF	OBUS	7.7800e-004	7.6700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.05

tblVehicleEF	OBUS	4.1700e-004	4.0100e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.14
tblVehicleEF	OBUS	0.26	0.07
tblVehicleEF	OBUS	1.1480e-003	9.8300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2000e-004	1.2800e-004
tblVehicleEF	OBUS	7.7800e-004	7.6700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	4.1700e-004	4.0100e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.14
tblVehicleEF	OBUS	0.29	0.08
tblVehicleEF	OBUS	0.01	6.7980e-003
tblVehicleEF	OBUS	4.7870e-003	2.6380e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.24	0.62
tblVehicleEF	OBUS	0.35	0.32
tblVehicleEF	OBUS	3.95	1.36
tblVehicleEF	OBUS	125.29	102.29
tblVehicleEF	OBUS	1,289.22	1,286.63
tblVehicleEF	OBUS	64.48	12.71
tblVehicleEF	OBUS	0.27	0.42
tblVehicleEF	OBUS	0.91	1.42
tblVehicleEF	OBUS	2.95	1.20
tblVehicleEF	OBUS	2.0000e-005	1.2700e-004
tblVehicleEF	OBUS	2.9450e-003	7.6570e-003
tblVehicleEF	OBUS	8.9400e-004	1.4400e-004
tblVehicleEF	OBUS	1.9000e-005	1.2200e-004

tblVehicleEF	OBUS	2.7980e-003	7.3130e-003
tblVehicleEF	OBUS	8.2200e-004	1.3300e-004
tblVehicleEF	OBUS	1.7800e-003	1.7440e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	7.1600e-004	6.7600e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.14
tblVehicleEF	OBUS	0.25	0.07
tblVehicleEF	OBUS	1.2070e-003	9.7100e-004
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tblVehicleEF	OBUS	7.1400e-004	1.2600e-004
tblVehicleEF	OBUS	1.7800e-003	1.7440e-003
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tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	7.1600e-004	6.7600e-004
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tblVehicleEF	OBUS	0.02	0.14
tblVehicleEF	OBUS	0.27	0.07
tblVehicleEF	OBUS	0.01	6.5780e-003
tblVehicleEF	OBUS	4.5970e-003	2.5000e-003
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tblVehicleEF	OBUS	0.25	0.64
tblVehicleEF	OBUS	0.34	0.31
tblVehicleEF	OBUS	4.57	1.58
tblVehicleEF	OBUS	110.68	105.36
tblVehicleEF	OBUS	1,289.22	1,286.61
tblVehicleEF	OBUS	64.48	13.08
tblVehicleEF	OBUS	0.25	0.47
tblVehicleEF	OBUS	0.97	1.51

tblVehicleEF	OBUS	3.04	1.22
tblVehicleEF	OBUS	2.9000e-005	1.6500e-004
tblVehicleEF	OBUS	2.9450e-003	7.6570e-003
tblVehicleEF	OBUS	8.9400e-004	1.4400e-004
tblVehicleEF	OBUS	2.8000e-005	1.5800e-004
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tblVehicleEF	OBUS	8.2200e-004	1.3300e-004
tblVehicleEF	OBUS	5.1600e-004	5.0400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.6000e-004	1.5400e-004
tblVehicleEF	OBUS	0.04	0.02
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tblVehicleEF	OBUS	1.0670e-003	1.0000e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2500e-004	1.2900e-004
tblVehicleEF	OBUS	5.1600e-004	5.0400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	1.6000e-004	1.5400e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.16
tblVehicleEF	OBUS	0.30	0.08
tblVehicleEF	SBUS	0.83	0.11
tblVehicleEF	SBUS	0.01	8.8090e-003
tblVehicleEF	SBUS	0.06	0.01
tblVehicleEF	SBUS	12.94	4.01
tblVehicleEF	SBUS	0.72	0.80
tblVehicleEF	SBUS	11.86	1.56

tblVehicleEF	SBUS	832.67	367.56
tblVehicleEF	SBUS	847.81	971.83
tblVehicleEF	SBUS	89.56	8.11
tblVehicleEF	SBUS	3.62	3.13
tblVehicleEF	SBUS	1.69	4.12
tblVehicleEF	SBUS	6.20	0.74
tblVehicleEF	SBUS	2.9290e-003	3.4540e-003
tblVehicleEF	SBUS	9.2930e-003	0.01
tblVehicleEF	SBUS	9.2750e-003	0.02
tblVehicleEF	SBUS	1.7340e-003	1.3000e-004
tblVehicleEF	SBUS	2.8030e-003	3.3050e-003
tblVehicleEF	SBUS	2.3230e-003	2.5240e-003
tblVehicleEF	SBUS	8.8370e-003	0.02
tblVehicleEF	SBUS	1.5940e-003	1.1900e-004
tblVehicleEF	SBUS	2.8560e-003	6.7200e-004
tblVehicleEF	SBUS	0.03	8.3910e-003
tblVehicleEF	SBUS	1.55	0.48
tblVehicleEF	SBUS	1.5450e-003	3.3200e-004
tblVehicleEF	SBUS	0.06	0.09
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.59	0.06
tblVehicleEF	SBUS	8.4050e-003	3.5190e-003
tblVehicleEF	SBUS	8.2910e-003	9.3510e-003
tblVehicleEF	SBUS	1.0990e-003	8.0000e-005
tblVehicleEF	SBUS	2.8560e-003	6.7200e-004
tblVehicleEF	SBUS	0.03	8.3910e-003
tblVehicleEF	SBUS	2.25	0.70
tblVehicleEF	SBUS	1.5450e-003	3.3200e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.05

tblVehicleEF	SBUS	0.64	0.06
tblVehicleEF	SBUS	0.83	0.11
tblVehicleEF	SBUS	0.01	9.0070e-003
tblVehicleEF	SBUS	0.05	8.8620e-003
tblVehicleEF	SBUS	12.90	3.97
tblVehicleEF	SBUS	0.74	0.82
tblVehicleEF	SBUS	9.16	1.21
tblVehicleEF	SBUS	855.90	376.40
tblVehicleEF	SBUS	847.81	971.87
tblVehicleEF	SBUS	89.56	7.51
tblVehicleEF	SBUS	3.73	3.20
tblVehicleEF	SBUS	1.61	3.95
tblVehicleEF	SBUS	6.14	0.73
tblVehicleEF	SBUS	2.4700e-003	2.9190e-003
tblVehicleEF	SBUS	9.2930e-003	0.01
tblVehicleEF	SBUS	9.2750e-003	0.02
tblVehicleEF	SBUS	1.7340e-003	1.3000e-004
tblVehicleEF	SBUS	2.3630e-003	2.7930e-003
tblVehicleEF	SBUS	2.3230e-003	2.5240e-003
tblVehicleEF	SBUS	8.8370e-003	0.02
tblVehicleEF	SBUS	1.5940e-003	1.1900e-004
tblVehicleEF	SBUS	6.5390e-003	1.5810e-003
tblVehicleEF	SBUS	0.03	8.6220e-003
tblVehicleEF	SBUS	1.55	0.48
tblVehicleEF	SBUS	2.6690e-003	5.9600e-004
tblVehicleEF	SBUS	0.06	0.09
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.50	0.05
tblVehicleEF	SBUS	8.6260e-003	3.6030e-003
tblVehicleEF	SBUS	8.2910e-003	9.3510e-003

tblVehicleEF	SBUS	1.0540e-003	7.4000e-005
tblVehicleEF	SBUS	6.5390e-003	1.5810e-003
tblVehicleEF	SBUS	0.03	8.6220e-003
tblVehicleEF	SBUS	2.25	0.70
tblVehicleEF	SBUS	2.6690e-003	5.9600e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.55	0.06
tblVehicleEF	SBUS	0.83	0.11
tblVehicleEF	SBUS	0.01	8.6760e-003
tblVehicleEF	SBUS	0.07	0.01
tblVehicleEF	SBUS	13.01	4.06
tblVehicleEF	SBUS	0.71	0.79
tblVehicleEF	SBUS	14.47	1.90
tblVehicleEF	SBUS	800.59	355.35
tblVehicleEF	SBUS	847.81	971.80
tblVehicleEF	SBUS	89.56	8.67
tblVehicleEF	SBUS	3.46	3.02
tblVehicleEF	SBUS	1.72	4.20
tblVehicleEF	SBUS	6.24	0.74
tblVehicleEF	SBUS	3.5650e-003	4.1930e-003
tblVehicleEF	SBUS	9.2930e-003	0.01
tblVehicleEF	SBUS	9.2750e-003	0.02
tblVehicleEF	SBUS	1.7340e-003	1.3000e-004
tblVehicleEF	SBUS	3.4100e-003	4.0120e-003
tblVehicleEF	SBUS	2.3230e-003	2.5240e-003
tblVehicleEF	SBUS	8.8370e-003	0.02
tblVehicleEF	SBUS	1.5940e-003	1.1900e-004
tblVehicleEF	SBUS	1.9120e-003	4.2200e-004
tblVehicleEF	SBUS	0.03	8.6660e-003

tblVehicleEF	SBUS	1.55	0.48
tblVehicleEF	SBUS	5.9700e-004	1.2500e-004
tblVehicleEF	SBUS	0.06	0.09
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.65	0.07
tblVehicleEF	SBUS	8.0990e-003	3.4040e-003
tblVehicleEF	SBUS	8.2900e-003	9.3510e-003
tblVehicleEF	SBUS	1.1430e-003	8.6000e-005
tblVehicleEF	SBUS	1.9120e-003	4.2200e-004
tblVehicleEF	SBUS	0.03	8.6660e-003
tblVehicleEF	SBUS	2.25	0.70
tblVehicleEF	SBUS	5.9700e-004	1.2500e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.72	0.07
tblVehicleEF	UBUS	0.26	1.52
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	3.57	11.42
tblVehicleEF	UBUS	7.08	0.83
tblVehicleEF	UBUS	2,018.95	1,603.69
tblVehicleEF	UBUS	104.71	9.21
tblVehicleEF	UBUS	5.87	0.69
tblVehicleEF	UBUS	14.44	0.10
tblVehicleEF	UBUS	0.59	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	4.9940e-003
tblVehicleEF	UBUS	1.1330e-003	5.3000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8010e-003
tblVehicleEF	UBUS	0.10	4.7760e-003

tblVehicleEF	UBUS	1.0420e-003	4.9000e-005
tblVehicleEF	UBUS	1.5560e-003	6.3800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.0220e-003	4.9700e-004
tblVehicleEF	UBUS	0.30	0.02
tblVehicleEF	UBUS	7.6000e-003	0.08
tblVehicleEF	UBUS	0.56	0.06
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.1750e-003	9.1000e-005
tblVehicleEF	UBUS	1.5560e-003	6.3800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.0220e-003	4.9700e-004
tblVehicleEF	UBUS	0.59	1.55
tblVehicleEF	UBUS	7.6000e-003	0.08
tblVehicleEF	UBUS	0.61	0.07
tblVehicleEF	UBUS	0.26	1.52
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	3.59	11.42
tblVehicleEF	UBUS	5.76	0.68
tblVehicleEF	UBUS	2,018.95	1,603.69
tblVehicleEF	UBUS	104.71	8.95
tblVehicleEF	UBUS	5.63	0.69
tblVehicleEF	UBUS	14.37	0.09
tblVehicleEF	UBUS	0.59	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	4.9940e-003
tblVehicleEF	UBUS	1.1330e-003	5.3000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8010e-003
tblVehicleEF	UBUS	0.10	4.7760e-003

tblVehicleEF	UBUS	1.0420e-003	4.9000e-005
tblVehicleEF	UBUS	3.7840e-003	1.4450e-003
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.7950e-003	8.0900e-004
tblVehicleEF	UBUS	0.30	0.02
tblVehicleEF	UBUS	6.7170e-003	0.07
tblVehicleEF	UBUS	0.49	0.05
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.1520e-003	8.9000e-005
tblVehicleEF	UBUS	3.7840e-003	1.4450e-003
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.7950e-003	8.0900e-004
tblVehicleEF	UBUS	0.59	1.55
tblVehicleEF	UBUS	6.7170e-003	0.07
tblVehicleEF	UBUS	0.54	0.06
tblVehicleEF	UBUS	0.26	1.52
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	3.55	11.42
tblVehicleEF	UBUS	8.16	0.95
tblVehicleEF	UBUS	2,018.95	1,603.69
tblVehicleEF	UBUS	104.71	9.43
tblVehicleEF	UBUS	5.96	0.69
tblVehicleEF	UBUS	14.48	0.11
tblVehicleEF	UBUS	0.59	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	4.9940e-003
tblVehicleEF	UBUS	1.1330e-003	5.3000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8010e-003
tblVehicleEF	UBUS	0.10	4.7760e-003

tblVehicleEF	UBUS	1.0420e-003	4.9000e-005
tblVehicleEF	UBUS	1.0480e-003	4.8800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	4.0800e-004	2.2200e-004
tblVehicleEF	UBUS	0.30	0.02
tblVehicleEF	UBUS	9.4720e-003	0.10
tblVehicleEF	UBUS	0.61	0.07
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.1930e-003	9.3000e-005
tblVehicleEF	UBUS	1.0480e-003	4.8800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	4.0800e-004	2.2200e-004
tblVehicleEF	UBUS	0.58	1.55
tblVehicleEF	UBUS	9.4720e-003	0.10
tblVehicleEF	UBUS	0.66	0.07
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	5.24
tblVehicleTrips	ST_TR	42.04	151.20
tblVehicleTrips	SU_TR	5.86	5.24
tblVehicleTrips	SU_TR	20.43	151.20
tblVehicleTrips	WD_TR	6.65	5.24
tblVehicleTrips	WD_TR	44.32	151.20

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.6965	39.4685	29.6983	0.0651	18.2141	1.6376	19.8275	9.9699	1.5066	11.4543	0.0000	6,335.5081	6,335.5081	1.9718	0.0000	6,384.8023
2023	3.2749	23.7231	30.1492	0.0901	5.3004	0.7378	6.0382	1.4228	0.6939	2.1167	0.0000	9,161.1380	9,161.1380	0.9378	0.0000	9,184.5815
2024	50.7672	23.8426	33.0202	0.0983	6.2123	0.7164	6.9287	1.6647	0.6771	2.3418	0.0000	9,964.2287	9,964.2287	0.9570	0.0000	9,988.1547
2025	50.5860	22.4973	32.3343	0.0963	6.2123	0.6205	6.8329	1.6647	0.5863	2.2510	0.0000	9,774.1841	9,774.1841	0.9496	0.0000	9,797.9232
Maximum	**50.7672**	**39.4685**	**33.0202**	**0.0983**	**18.2141**	**1.6376**	**19.8275**	**9.9699**	**1.5066**	**11.4543**	**0.0000**	**9,964.2287**	**9,964.2287**	**1.9718**	**0.0000**	**9,988.1547**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.8333	4.2558	33.6559	0.0651	7.8635	0.1042	7.9264	4.2827	0.1041	4.3456	0.0000	6,335.5081	6,335.5081	1.9718	0.0000	6,384.8023
2023	2.2406	11.9895	31.5465	0.0901	5.0309	0.1311	5.1620	1.3566	0.1285	1.4852	0.0000	9,161.1380	9,161.1380	0.9378	0.0000	9,184.5815
2024	49.8155	13.0103	34.4805	0.0983	5.8953	0.1885	6.0838	1.5869	0.1855	1.7724	0.0000	9,964.2287	9,964.2287	0.9570	0.0000	9,988.1547
2025	49.7224	12.6004	33.8646	0.0963	5.8953	0.1717	6.0670	1.5869	0.1688	1.7557	0.0000	9,774.1841	9,774.1841	0.9496	0.0000	9,797.9232
Maximum	**49.8155**	**13.0103**	**34.4805**	**0.0983**	**7.8635**	**0.1885**	**7.9264**	**4.2827**	**0.1855**	**4.3456**	**0.0000**	**9,964.2287**	**9,964.2287**	**1.9718**	**0.0000**	**9,988.1547**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.27**	**61.79**	**-6.67**	**0.00**	**31.31**	**83.96**	**36.31**	**40.14**	**83.06**	**48.48**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	265.8485	6.0756	378.6677	0.6360		46.9450	46.9450		46.9450	46.9450	5,064.3620	2,332.0864	7,396.4484	7.0168	0.3580	7,678.5408
Energy	0.1567	1.3398	0.5727	8.5500e-003		0.1083	0.1083		0.1083	0.1083		1,709.8824	1,709.8824	0.0328	0.0314	1,720.0434
Mobile	7.5096	9.9153	67.5994	0.1924	21.9068	0.1260	22.0328	5.8509	0.1173	5.9682		19,735.2882	19,735.2882	1.0893		19,762.5209
Stationary	2.0018	5.5958	5.1049	9.6200e-003		0.2945	0.2945		0.2945	0.2945		1,024.2072	1,024.2072	0.1436		1,027.7971
Total	**275.5166**	**22.9265**	**451.9447**	**0.8465**	**21.9068**	**47.4738**	**69.3806**	**5.8509**	**47.4651**	**53.3160**	**5,064.3620**	**24,801.4642**	**29,865.8262**	**8.2824**	**0.3893**	**30,188.9022**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.0361	0.5750	49.9374	2.6400e-003		0.2770	0.2770		0.2770	0.2770	0.0000	90.0276	90.0276	0.0865	0.0000	92.1892
Energy	0.1238	1.0580	0.4521	6.7500e-003		0.0855	0.0855		0.0855	0.0855		1,350.2368	1,350.2368	0.0259	0.0248	1,358.2606
Mobile	6.6884	6.6232	47.5515	0.1086	12.1019	0.0760	12.1778	3.2322	0.0707	3.3029		11,139.5231	11,139.5231	0.7923		11,159.3308
Stationary	2.0018	5.5958	5.1049	9.6200e-003		0.2945	0.2945		0.2945	0.2945		1,024.2072	1,024.2072	0.1436		1,027.7971
Total	**25.8501**	**13.8520**	**103.0459**	**0.1276**	**12.1019**	**0.7330**	**12.8348**	**3.2322**	**0.7277**	**3.9599**	**0.0000**	**13,603.9946**	**13,603.9946**	**1.0482**	**0.0248**	**13,637.5776**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	90.62	39.58	77.20	84.93	44.76	98.46	81.50	44.76	98.47	92.57	100.00	45.15	54.45	87.34	93.64	54.83

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	4/29/2022	5	85	
2	Site Preparation	Site Preparation	5/1/2022	6/1/2022	5	23	
3	Grading	Grading	6/3/2022	12/30/2022	5	151	
4	Paving	Paving	1/1/2023	2/1/2023	5	23	
5	Building Construction	Building Construction	2/2/2023	5/2/2025	5	587	
6	Architectural Coating	Architectural Coating	9/1/2024	5/15/2025	5	184	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 377.5

Acres of Paving: 6.27

Residential Indoor: 1,225,125; Residential Outdoor: 408,375; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	688.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	325.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	554.00	111.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	111.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7517	0.0000	1.7517	0.2652	0.0000	0.2652			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**1.7517**	**1.2427**	**2.9944**	**0.2652**	**1.1553**	**1.4205**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0659	2.2281	1.1783	6.2600e-003	0.1406	6.5000e-003	0.1471	0.0385	6.2200e-003	0.0447		715.7425	715.7425	0.0950		718.1181
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0407	0.0244	0.2576	1.0100e-003	0.1232	7.0000e-004	0.1239	0.0327	6.5000e-004	0.0333		100.3301	100.3301	1.7100e-003		100.3730
Total	**0.1065**	**2.2525**	**1.4359**	**7.2700e-003**	**0.2638**	**7.2000e-003**	**0.2710**	**0.0712**	**6.8700e-003**	**0.0780**		**816.0726**	**816.0726**	**0.0967**		**818.4911**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust					0.7489	0.0000	0.7489	0.1134	0.0000	0.1134			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**0.7489**	**0.0616**	**0.8105**	**0.1134**	**0.0616**	**0.1750**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0659	2.2281	1.1783	6.2600e-003	0.1342	6.5000e-003	0.1407	0.0369	6.2200e-003	0.0431		715.7425	715.7425	0.0950		718.1181
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0407	0.0244	0.2576	1.0100e-003	0.1168	7.0000e-004	0.1175	0.0311	6.5000e-004	0.0318		100.3301	100.3301	1.7100e-003		100.3730
Total	**0.1065**	**2.2525**	**1.4359**	**7.2700e-003**	**0.2510**	**7.2000e-003**	**0.2582**	**0.0680**	**6.8700e-003**	**0.0749**		**816.0726**	**816.0726**	**0.0967**		**818.4911**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655

Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0488	0.0293	0.3091	1.2100e-003	0.1479	8.5000e-004	0.1487	0.0392	7.8000e-004	0.0400		120.3962	120.3962	2.0600e-003		120.4476
Total	**0.0488**	**0.0293**	**0.3091**	**1.2100e-003**	**0.1479**	**8.5000e-004**	**0.1487**	**0.0392**	**7.8000e-004**	**0.0400**		**120.3962**	**120.3962**	**2.0600e-003**		**120.4476**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7233	0.0000	7.7233	4.2454	0.0000	4.2454			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**7.7233**	**0.0621**	**7.7854**	**4.2454**	**0.0621**	**4.3075**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0488	0.0293	0.3091	1.2100e-003	0.1402	8.5000e-004	0.1410	0.0373	7.8000e-004	0.0381		120.3962	120.3962	2.0600e-003		120.4476
Total	**0.0488**	**0.0293**	**0.3091**	**1.2100e-003**	**0.1402**	**8.5000e-004**	**0.1410**	**0.0373**	**7.8000e-004**	**0.0381**		**120.3962**	**120.3962**	**2.0600e-003**		**120.4476**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6753	0.0000	8.6753	3.5968	0.0000	3.5968			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6753**	**1.6349**	**10.3102**	**3.5968**	**1.5041**	**5.1009**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0175	0.5925	0.3133	1.6600e-003	0.0374	1.7300e-003	0.0391	0.0102	1.6500e-003	0.0119		190.3241	190.3241	0.0253		190.9558
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0542	0.0326	0.3435	1.3400e-003	0.1643	9.4000e-004	0.1652	0.0436	8.6000e-004	0.0444		133.7735	133.7735	2.2900e-003		133.8307
Total	**0.0717**	**0.6250**	**0.6568**	**3.0000e-003**	**0.2017**	**2.6700e-003**	**0.2043**	**0.0538**	**2.5100e-003**	**0.0563**		**324.0976**	**324.0976**	**0.0276**		**324.7864**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7087	0.0000	3.7087	1.5376	0.0000	1.5376			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**3.7087**	**0.1015**	**3.8102**	**1.5376**	**0.1015**	**1.6392**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0175	0.5925	0.3133	1.6600e-003	0.0357	1.7300e-003	0.0374	9.8100e-003	1.6500e-003	0.0115		190.3241	190.3241	0.0253		190.9558
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0542	0.0326	0.3435	1.3400e-003	0.1557	9.4000e-004	0.1567	0.0415	8.6000e-004	0.0423		133.7735	133.7735	2.2900e-003		133.8307
Total	**0.0717**	**0.6250**	**0.6568**	**3.0000e-003**	**0.1914**	**2.6700e-003**	**0.1941**	**0.0513**	**2.5100e-003**	**0.0538**		**324.0976**	**324.0976**	**0.0276**		**324.7864**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0729					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1056**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0387	0.0222	0.2395	9.7000e-004	0.1232	6.9000e-004	0.1239	0.0327	6.4000e-004	0.0333		96.5437	96.5437	1.5500e-003		96.5825
Total	**0.0387**	**0.0222**	**0.2395**	**9.7000e-004**	**0.1232**	**6.9000e-004**	**0.1239**	**0.0327**	**6.4000e-004**	**0.0333**		**96.5437**	**96.5437**	**1.5500e-003**		**96.5825**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0729					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3534**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0387	0.0222	0.2395	9.7000e-004	0.1168	6.9000e-004	0.1175	0.0311	6.4000e-004	0.0318		96.5437	96.5437	1.5500e-003		96.5825
Total	**0.0387**	**0.0222**	**0.2395**	**9.7000e-004**	**0.1168**	**6.9000e-004**	**0.1175**	**0.0311**	**6.4000e-004**	**0.0318**		**96.5437**	**96.5437**	**1.5500e-003**		**96.5825**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2725	8.5194	5.0584	0.0274	0.7494	0.0125	0.7619	0.2157	0.0119	0.2276		3,040.2458	3,040.2458	0.2727		3,047.0630
Worker	1.4296	0.8188	8.8468	0.0357	4.5510	0.0256	4.5766	1.2071	0.0236	1.2307		3,565.6823	3,565.6823	0.0572		3,567.1125
Total	**1.7021**	**9.3382**	**13.9052**	**0.0632**	**5.3004**	**0.0381**	**5.3385**	**1.4228**	**0.0355**	**1.4583**		**6,605.9281**	**6,605.9281**	**0.3299**		**6,614.1754**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5385	2.6513	17.6413	0.0269		0.0930	0.0930		0.0930	0.0930	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.5385**	**2.6513**	**17.6413**	**0.0269**		**0.0930**	**0.0930**		**0.0930**	**0.0930**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2725	8.5194	5.0584	0.0274	0.7172	0.0125	0.7297	0.2078	0.0119	0.2197		3,040.2458	3,040.2458	0.2727		3,047.0630
Worker	1.4296	0.8188	8.8468	0.0357	4.3137	0.0256	4.3393	1.1489	0.0236	1.1725		3,565.6823	3,565.6823	0.0572		3,567.1125
Total	**1.7021**	**9.3382**	**13.9052**	**0.0632**	**5.0309**	**0.0381**	**5.0690**	**1.3566**	**0.0355**	**1.3922**		**6,605.9281**	**6,605.9281**	**0.3299**		**6,614.1754**

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2641	8.2846	5.1286	0.0271	0.7495	0.0119	0.7614	0.2157	0.0114	0.2271		3,013.4049	3,013.4049	0.2746		3,020.2700
Worker	1.3700	0.7460	8.2598	0.0343	4.5510	0.0252	4.5762	1.2071	0.0232	1.2304		3,427.0330	3,427.0330	0.0519		3,428.3293
Total	**1.6341**	**9.0306**	**13.3883**	**0.0615**	**5.3004**	**0.0372**	**5.3376**	**1.4228**	**0.0346**	**1.4574**		**6,440.4379**	**6,440.4379**	**0.3265**		**6,448.5993**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5199	2.6115	17.6271	0.0270		0.0853	0.0853		0.0853	0.0853	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.5199**	**2.6115**	**17.6271**	**0.0270**		**0.0853**	**0.0853**		**0.0853**	**0.0853**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2641	8.2846	5.1286	0.0271	0.7173	0.0119	0.7293	0.2078	0.0114	0.2192		3,013.4049	3,013.4049	0.2746		3,020.2700
Worker	1.3700	0.7460	8.2598	0.0343	4.3137	0.0252	4.3389	1.1489	0.0232	1.1721		3,427.0330	3,427.0330	0.0519		3,428.3293
Total	**1.6341**	**9.0306**	**13.3883**	**0.0615**	**5.0310**	**0.0372**	**5.0682**	**1.3567**	**0.0346**	**1.3913**		**6,440.4379**	**6,440.4379**	**0.3265**		**6,448.5993**

3.6 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2568	8.0601	5.2013	0.0268	0.7495	0.0115	0.7610	0.2157	0.0110	0.2267		2,987.1993	2,987.1993	0.2765		2,994.1107
Worker	1.3201	0.6848	7.6970	0.0330	4.5510	0.0250	4.5759	1.2071	0.0230	1.2301		3,289.8956	3,289.8956	0.0473		3,291.0787
Total	**1.5770**	**8.7449**	**12.8983**	**0.0598**	**5.3005**	**0.0364**	**5.3369**	**1.4228**	**0.0339**	**1.4568**		**6,277.0949**	**6,277.0949**	**0.3238**		**6,285.1894**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5038	2.5728	17.6150	0.0270		0.0788	0.0788		0.0788	0.0788	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.5038**	**2.5728**	**17.6150**	**0.0270**		**0.0788**	**0.0788**		**0.0788**	**0.0788**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2568	8.0601	5.2013	0.0268	0.7174	0.0115	0.7289	0.2078	0.0110	0.2188		2,987.1993	2,987.1993	0.2765		2,994.1107
Worker	1.3201	0.6848	7.6970	0.0330	4.3137	0.0250	4.3386	1.1489	0.0230	1.1719		3,289.8956	3,289.8956	0.0473		3,291.0787
Total	**1.5770**	**8.7449**	**12.8983**	**0.0598**	**5.0311**	**0.0364**	**5.0675**	**1.3567**	**0.0339**	**1.3906**		**6,277.0949**	**6,277.0949**	**0.3238**		**6,285.1894**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.2063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**47.3871**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2745	0.1495	1.6549	6.8800e-003	0.9118	5.0600e-003	0.9169	0.2419	4.6500e-003	0.2465		686.6438	686.6438	0.0104		686.9035
Total	**0.2745**	**0.1495**	**1.6549**	**6.8800e-003**	**0.9118**	**5.0600e-003**	**0.9169**	**0.2419**	**4.6500e-003**	**0.2465**		**686.6438**	**686.6438**	**0.0104**		**686.9035**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.2063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**47.3871**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2745	0.1495	1.6549	6.8800e-003	0.8643	5.0600e-003	0.8694	0.2302	4.6500e-003	0.2348		686.6438	686.6438	0.0104		686.9035
Total	**0.2745**	**0.1495**	**1.6549**	**6.8800e-003**	**0.8643**	**5.0600e-003**	**0.8694**	**0.2302**	**4.6500e-003**	**0.2348**		**686.6438**	**686.6438**	**0.0104**		**686.9035**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.2063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**47.3772**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2645	0.1372	1.5422	6.6000e-003	0.9118	5.0000e-003	0.9168	0.2419	4.6000e-003	0.2465		659.1668	659.1668	9.4800e-003		659.4039
Total	**0.2645**	**0.1372**	**1.5422**	**6.6000e-003**	**0.9118**	**5.0000e-003**	**0.9168**	**0.2419**	**4.6000e-003**	**0.2465**		**659.1668**	**659.1668**	**9.4800e-003**		**659.4039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.2063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**47.3772**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2645	0.1372	1.5422	6.6000e-003	0.8643	5.0000e-003	0.8693	0.2302	4.6000e-003	0.2348		659.1668	659.1668	9.4800e-003		659.4039
Total	**0.2645**	**0.1372**	**1.5422**	**6.6000e-003**	**0.8643**	**5.0000e-003**	**0.8693**	**0.2302**	**4.6000e-003**	**0.2348**		**659.1668**	**659.1668**	**9.4800e-003**		**659.4039**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Pedestrian Network

Implement Trip Reduction Program

Transit Subsidy

Encourage Telecommuting and Alternative Work Schedules

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.6884	6.6232	47.5515	0.1086	12.1019	0.0760	12.1778	3.2322	0.0707	3.3029		11,139.5231	11,139.5231	0.7923		11,159.3308
Unmitigated	7.5096	9.9153	67.5994	0.1924	21.9068	0.1260	22.0328	5.8509	0.1173	5.9682		19,735.2882	19,735.2882	1.0893		19,762.5209

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	3,170.20	3,170.20	3170.20	8,246,147	4,649,372
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	756.00	756.00	756.00	2,109,340	1,071,245

Total	3,926.20	3,926.20	3,926.20	10,355,487	5,720,617

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824
Enclosed Parking Structure	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824
Parking Lot	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824
Strip Mall	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1238	1.0580	0.4521	6.7500e-003		0.0855	0.0855		0.0855	0.0855		1,350.2368	1,350.2368	0.0259	0.0248	1,358.2606
NaturalGas Unmitigated	0.1567	1.3398	0.5727	8.5500e-003		0.1083	0.1083		0.1083	0.1083		1,709.8824	1,709.8824	0.0328	0.0314	1,720.0434

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	14471	0.1561	1.3336	0.5675	8.5100e-003		0.1078	0.1078		0.1078	0.1078		1,702.4690	1,702.4690	0.0326	0.0312	1,712.5860
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	63.0137	6.8000e-004	6.1800e-003	5.1900e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		7.4134	7.4134	1.4000e-004	1.4000e-004	7.4574
Total		**0.1567**	**1.3398**	**0.5727**	**8.5500e-003**		**0.1083**	**0.1083**		**0.1083**	**0.1083**		**1,709.8824**	**1,709.8824**	**0.0328**	**0.0314**	**1,720.0434**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	11.43	0.1233	1.0534	0.4482	6.7200e-003		0.0852	0.0852		0.0852	0.0852		1,344.7090	1,344.7090	0.0258	0.0247	1,352.6999
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0469863	5.1000e-004	4.6100e-003	3.8700e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004		5.5278	5.5278	1.1000e-004	1.0000e-004	5.5607
Total		**0.1238**	**1.0580**	**0.4521**	**6.7500e-003**		**0.0855**	**0.0855**		**0.0855**	**0.0855**		**1,350.2368**	**1,350.2368**	**0.0259**	**0.0248**	**1,358.2606**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.0361	0.5750	49.9374	2.6400e-003		0.2770	0.2770		0.2770	0.2770	0.0000	90.0276	90.0276	0.0865	0.0000	92.1892
Unmitigated	265.8485	6.0756	378.6677	0.6360		46.9450	46.9450		46.9450	46.9450	5,064.3620	2,332.0864	7,396.4484	7.0168	0.3580	7,678.5408

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3797					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1526					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	248.8124	5.5006	328.7303	0.6333		46.6681	46.6681		46.6681	46.6681	5,064.3620	2,242.0588	7,306.4208	6.9303	0.3580	7,586.3516
Landscaping	1.5038	0.5750	49.9374	2.6400e-003		0.2770	0.2770		0.2770	0.2770		90.0276	90.0276	0.0865		92.1892

Total	**265.8485**	**6.0756**	**378.6677**	**0.6360**		**46.9450**	**46.9450**		**46.9450**	**46.9450**	**5,064.3620**	**2,332.0864**	**7,396.4484**	**7.0168**	**0.3580**	**7,678.5408**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3797					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1526					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5038	0.5750	49.9374	2.6400e-003		0.2770	0.2770		0.2770	0.2770		90.0276	90.0276	0.0865		92.1892
Total	**17.0361**	**0.5750**	**49.9374**	**2.6400e-003**		**0.2770**	**0.2770**		**0.2770**	**0.2770**	**0.0000**	**90.0276**	**90.0276**	**0.0865**	**0.0000**	**92.1892**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	4	50	305	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (300 - 600 HP)	2.0018	5.5958	5.1049	9.6200e-003		0.2945	0.2945		0.2945	0.2945		1,024.2072	1,024.2072	0.1436		1,027.7971
Total	**2.0018**	**5.5958**	**5.1049**	**9.6200e-003**		**0.2945**	**0.2945**		**0.2945**	**0.2945**		**1,024.2072**	**1,024.2072**	**0.1436**		**1,027.7971**

11.0 Vegetation

Existing Woodland Park

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	161.00	Dwelling Unit	10.06	161,000.00	460

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	163	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on the 2020 PG&E CRSR

Land Use -

Construction Phase - Operational modelling only

Grading -

Vehicle Trips - per traffic analysis

Energy Use -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	4/15/2022	3/18/2022
tblConstructionPhase	PhaseEndDate	2/18/2022	12/25/2020
tblConstructionPhase	PhaseEndDate	10/30/2020	10/4/2020
tblConstructionPhase	PhaseEndDate	12/25/2020	11/13/2020
tblConstructionPhase	PhaseEndDate	3/18/2022	2/18/2022
tblConstructionPhase	PhaseEndDate	11/13/2020	10/30/2020
tblProjectCharacteristics	CO2IntensityFactor	641.35	163
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	7.16	7.32
tblVehicleTrips	SU_TR	6.07	7.32
tblVehicleTrips	WD_TR	6.59	7.32

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					

2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Area	1.1501	0.0224	1.7109	1.0800e-003		0.0797	0.0797		0.0797	0.0797	7.3399	4.9676	12.3076	0.0137	4.8000e-004	12.7935
Energy	0.0177	0.1510	0.0642	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	225.0220	225.0220	0.0123	5.0500e-003	226.8348
Mobile	0.3249	1.0672	3.8054	0.0127	1.1364	0.0138	1.1502	0.3054	0.0130	0.3183	0.0000	1,158.7587	1,158.7587	0.0428	0.0000	1,159.8284
Waste						0.0000	0.0000		0.0000	0.0000	15.0335	0.0000	15.0335	0.8885	0.0000	37.2449
Water						0.0000	0.0000		0.0000	0.0000	3.3279	5.9079	9.2358	0.3429	8.2900e-003	20.2773
Total	**1.4927**	**1.2406**	**5.5805**	**0.0147**	**1.1364**	**0.1057**	**1.2421**	**0.3054**	**0.1049**	**0.4103**	**25.7014**	**1,394.6562**	**1,420.3576**	**1.3001**	**0.0138**	**1,456.9789**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1501	0.0224	1.7109	1.0800e-003		0.0797	0.0797		0.0797	0.0797	7.3399	4.9676	12.3076	0.0137	4.8000e-004	12.7935
Energy	0.0177	0.1510	0.0642	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	225.0220	225.0220	0.0123	5.0500e-003	226.8348
Mobile	0.3249	1.0672	3.8054	0.0127	1.1364	0.0138	1.1502	0.3054	0.0130	0.3183	0.0000	1,158.7587	1,158.7587	0.0428	0.0000	1,159.8284
Waste						0.0000	0.0000		0.0000	0.0000	7.5168	0.0000	7.5168	0.4442	0.0000	18.6224
Water						0.0000	0.0000		0.0000	0.0000	2.6623	4.9642	7.6266	0.2743	6.6400e-003	16.4634
Total	**1.4927**	**1.2406**	**5.5805**	**0.0147**	**1.1364**	**0.1057**	**1.2421**	**0.3054**	**0.1049**	**0.4103**	**17.5190**	**1,393.7125**	**1,411.2316**	**0.7873**	**0.0122**	**1,434.5425**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**31.84**	**0.07**	**0.64**	**39.44**	**11.94**	**1.54**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/5/2020	10/4/2020	5	0	
2	Site Preparation	Site Preparation	10/31/2020	10/30/2020	5	0	
3	Grading	Grading	11/14/2020	11/13/2020	5	0	
4	Building Construction	Building Construction	12/26/2020	12/25/2020	5	0	
5	Paving	Paving	2/19/2022	2/18/2022	5	0	
6	Architectural Coating	Architectural Coating	3/19/2022	3/18/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 326,025; Residential Outdoor: 108,675; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	116.00	17.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3249	1.0672	3.8054	0.0127	1.1364	0.0138	1.1502	0.3054	0.0130	0.3183	0.0000	1,158.7587	1,158.7587	0.0428	0.0000	1,159.8284
Unmitigated	0.3249	1.0672	3.8054	0.0127	1.1364	0.0138	1.1502	0.3054	0.0130	0.3183	0.0000	1,158.7587	1,158.7587	0.0428	0.0000	1,159.8284

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,178.52	1,178.52	1178.52	3,065,500	3,065,500
Total	1,178.52	1,178.52	1,178.52	3,065,500	3,065,500

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.490452	0.049742	0.253638	0.136789	0.017926	0.006526	0.021436	0.006323	0.003943	0.003278	0.008771	0.000435	0.000741

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	50.1878	50.1878	8.9300e-003	1.8500e-003	50.9616
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	50.1878	50.1878	8.9300e-003	1.8500e-003	50.9616
NaturalGas Mitigated	0.0177	0.1510	0.0642	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	174.8342	174.8342	3.3500e-003	3.2100e-003	175.8732
NaturalGas Unmitigated	0.0177	0.1510	0.0642	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	174.8342	174.8342	3.3500e-003	3.2100e-003	175.8732

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	3.27627e+006	0.0177	0.1510	0.0642	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	174.8342	174.8342	3.3500e-003	3.2100e-003	175.8732
Total		**0.0177**	**0.1510**	**0.0642**	**9.6000e-004**		**0.0122**	**0.0122**		**0.0122**	**0.0122**	**0.0000**	**174.8342**	**174.8342**	**3.3500e-003**	**3.2100e-003**	**175.8732**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	3.27627e+006	0.0177	0.1510	0.0642	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	174.8342	174.8342	3.3500e-003	3.2100e-003	175.8732
Total		**0.0177**	**0.1510**	**0.0642**	**9.6000e-004**		**0.0122**	**0.0122**		**0.0122**	**0.0122**	**0.0000**	**174.8342**	**174.8342**	**3.3500e-003**	**3.2100e-003**	**175.8732**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	678805	50.1878	8.9300e-003	1.8500e-003	50.9616
Total		**50.1878**	**8.9300e-003**	**1.8500e-003**	**50.9616**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	678805	50.1878	8.9300e-003	1.8500e-003	50.9616
Total		**50.1878**	**8.9300e-003**	**1.8500e-003**	**50.9616**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1501	0.0224	1.7109	1.0800e-003		0.0797	0.0797		0.0797	0.0797	7.3399	4.9676	12.3076	0.0137	4.8000e-004	12.7935
Unmitigated	1.1501	0.0224	1.7109	1.0800e-003		0.0797	0.0797		0.0797	0.0797	7.3399	4.9676	12.3076	0.0137	4.8000e-004	12.7935

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6288					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3715	8.5500e-003	0.5115	1.0200e-003		0.0731	0.0731		0.0731	0.0731	7.3399	3.0149	10.3548	0.0118	4.8000e-004	10.7932
Landscaping	0.0365	0.0139	1.1994	6.0000e-005		6.6000e-003	6.6000e-003		6.6000e-003	6.6000e-003	0.0000	1.9527	1.9527	1.9000e-003	0.0000	2.0003

Total	**1.1501**	**0.0224**	**1.7110**	**1.0800e-003**		**0.0797**	**0.0797**		**0.0797**	**0.0797**	**7.3399**	**4.9676**	**12.3076**	**0.0137**	**4.8000e-004**	**12.7935**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6288					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3715	8.5500e-003	0.5115	1.0200e-003		0.0731	0.0731		0.0731	0.0731	7.3399	3.0149	10.3548	0.0118	4.8000e-004	10.7932
Landscaping	0.0365	0.0139	1.1994	6.0000e-005		6.6000e-003	6.6000e-003		6.6000e-003	6.6000e-003	0.0000	1.9527	1.9527	1.9000e-003	0.0000	2.0003
Total	**1.1501**	**0.0224**	**1.7110**	**1.0800e-003**		**0.0797**	**0.0797**		**0.0797**	**0.0797**	**7.3399**	**4.9676**	**12.3076**	**0.0137**	**4.8000e-004**	**12.7935**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e

Category	MT/yr			
Mitigated	7.6266	0.2743	6.6400e-003	16.4634
Unmitigated	9.2358	0.3429	8.2900e-003	20.2773

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	10.4898 / 6.61313	9.2358	0.3429	8.2900e-003	20.2773
Total		**9.2358**	**0.3429**	**8.2900e-003**	**20.2773**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	8.39184 / 6.20973	7.6266	0.2743	6.6400e-003	16.4634
Total		**7.6266**	**0.2743**	**6.6400e-003**	**16.4634**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.5168	0.4442	0.0000	18.6224
Unmitigated	15.0335	0.8885	0.0000	37.2449

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	74.06	15.0335	0.8885	0.0000	37.2449
Total		**15.0335**	**0.8885**	**0.0000**	**37.2449**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	37.03	7.5168	0.4442	0.0000	18.6224
Total		**7.5168**	**0.4442**	**0.0000**	**18.6224**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenhouse Gas Calculations

Woodland Park - San Mateo County, Annual

Woodland Park

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	625.00	Space	5.63	250,000.00	0
Parking Lot	71.00	Space	0.64	28,400.00	0
Apartments Mid Rise	605.00	Dwelling Unit	15.92	605,000.00	1730
Strip Mall	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	163	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on the 2020 PG&E CRSR

Land Use -

Construction Phase - per construction questionnaire

Demolition -

Grading -

Vehicle Trips - per traffic analysis

Energy Use -

Construction Off-road Equipment Mitigation - per BAAQMD basic control measures

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation -

Energy Mitigation - Per title 24 2019

Water Mitigation -

Waste Mitigation - per AB 939

Stationary Sources - Emergency Generators and Fire Pumps - Fire Pump Station for emergency purposes

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	35.00	151.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	10.00	23.00
tblGrading	MaterialImported	0.00	2,600.00
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tblVehicleEF	LDT1	0.12	0.10
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tblVehicleEF	LDT1	0.02	0.00
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tblVehicleEF	LDT1	0.12	0.10
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.13	0.45
tblVehicleEF	LDT1	0.10	0.24
tblVehicleEF	LDT2	3.4690e-003	1.9400e-003
tblVehicleEF	LDT2	4.0940e-003	0.05
tblVehicleEF	LDT2	0.51	0.56
tblVehicleEF	LDT2	1.03	2.54
tblVehicleEF	LDT2	297.27	275.26
tblVehicleEF	LDT2	69.53	59.15

tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.06	0.19
tblVehicleEF	LDT2	1.6830e-003	1.3140e-003
tblVehicleEF	LDT2	2.4040e-003	1.6980e-003
tblVehicleEF	LDT2	1.5480e-003	1.2100e-003
tblVehicleEF	LDT2	2.2100e-003	1.5610e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	8.6100e-003	7.4300e-003
tblVehicleEF	LDT2	0.06	0.29
tblVehicleEF	LDT2	0.06	0.22
tblVehicleEF	LDT2	2.9750e-003	2.7230e-003
tblVehicleEF	LDT2	7.1200e-004	5.8500e-004
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.29
tblVehicleEF	LDT2	0.06	0.24
tblVehicleEF	LDT2	3.7850e-003	2.1460e-003
tblVehicleEF	LDT2	3.4550e-003	0.04
tblVehicleEF	LDT2	0.58	0.64
tblVehicleEF	LDT2	0.83	2.00
tblVehicleEF	LDT2	315.68	288.42
tblVehicleEF	LDT2	69.53	58.18
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.06	0.17
tblVehicleEF	LDT2	1.6830e-003	1.3140e-003
tblVehicleEF	LDT2	2.4040e-003	1.6980e-003

tblVehicleEF	LDT2	1.5480e-003	1.2100e-003
tblVehicleEF	LDT2	2.2100e-003	1.5610e-003
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	9.3910e-003	8.0810e-003
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.05	0.19
tblVehicleEF	LDT2	3.1600e-003	2.8530e-003
tblVehicleEF	LDT2	7.0900e-004	5.7600e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.05	0.26
tblVehicleEF	LDT2	0.05	0.20
tblVehicleEF	LDT2	3.4080e-003	1.8850e-003
tblVehicleEF	LDT2	4.5490e-003	0.05
tblVehicleEF	LDT2	0.51	0.56
tblVehicleEF	LDT2	1.18	2.92
tblVehicleEF	LDT2	296.14	274.45
tblVehicleEF	LDT2	69.53	59.83
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.07	0.21
tblVehicleEF	LDT2	1.6830e-003	1.3140e-003
tblVehicleEF	LDT2	2.4040e-003	1.6980e-003
tblVehicleEF	LDT2	1.5480e-003	1.2100e-003
tblVehicleEF	LDT2	2.2100e-003	1.5610e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08

tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	8.4570e-003	7.3030e-003
tblVehicleEF	LDT2	0.07	0.36
tblVehicleEF	LDT2	0.06	0.25
tblVehicleEF	LDT2	2.9640e-003	2.7150e-003
tblVehicleEF	LDT2	7.1500e-004	5.9200e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.36
tblVehicleEF	LDT2	0.07	0.27
tblVehicleEF	LHD1	4.4510e-003	4.6830e-003
tblVehicleEF	LHD1	0.01	5.8360e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.69	0.51
tblVehicleEF	LHD1	1.94	0.97
tblVehicleEF	LHD1	8.97	8.57
tblVehicleEF	LHD1	656.10	751.95
tblVehicleEF	LHD1	28.64	11.12
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.58	0.34
tblVehicleEF	LHD1	0.74	0.26
tblVehicleEF	LHD1	8.6900e-004	8.5300e-004
tblVehicleEF	LHD1	0.01	9.7990e-003
tblVehicleEF	LHD1	0.01	7.0500e-003
tblVehicleEF	LHD1	7.3000e-004	2.2400e-004
tblVehicleEF	LHD1	8.3100e-004	8.1600e-004
tblVehicleEF	LHD1	2.5810e-003	2.4500e-003

tblVehicleEF	LHD1	0.01	6.6990e-003
tblVehicleEF	LHD1	6.7100e-004	2.0600e-004
tblVehicleEF	LHD1	1.4780e-003	1.0710e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	9.5600e-004	6.9000e-004
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.25	0.33
tblVehicleEF	LHD1	0.17	0.05
tblVehicleEF	LHD1	8.9000e-005	8.3000e-005
tblVehicleEF	LHD1	6.4190e-003	7.3400e-003
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tblVehicleEF	LHD1	1.4780e-003	1.0710e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	9.5600e-004	6.9000e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.25	0.33
tblVehicleEF	LHD1	0.19	0.06
tblVehicleEF	LHD1	4.4510e-003	4.6960e-003
tblVehicleEF	LHD1	0.01	5.9540e-003
tblVehicleEF	LHD1	0.01	9.7570e-003
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.70	0.52
tblVehicleEF	LHD1	1.79	0.90
tblVehicleEF	LHD1	8.97	8.57
tblVehicleEF	LHD1	656.10	751.97
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tblVehicleEF	LHD1	0.55	0.33

tblVehicleEF	LHD1	0.69	0.24
tblVehicleEF	LHD1	8.6900e-004	8.5300e-004
tblVehicleEF	LHD1	0.01	9.7990e-003
tblVehicleEF	LHD1	0.01	7.0500e-003
tblVehicleEF	LHD1	7.3000e-004	2.2400e-004
tblVehicleEF	LHD1	8.3100e-004	8.1600e-004
tblVehicleEF	LHD1	2.5810e-003	2.4500e-003
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tblVehicleEF	LHD1	3.5060e-003	2.5700e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.5870e-003	1.1640e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.24	0.32
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tblVehicleEF	LHD1	8.9000e-005	8.3000e-005
tblVehicleEF	LHD1	6.4190e-003	7.3410e-003
tblVehicleEF	LHD1	3.1900e-004	1.0900e-004
tblVehicleEF	LHD1	3.5060e-003	2.5700e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.5870e-003	1.1640e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.24	0.32
tblVehicleEF	LHD1	0.18	0.05
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tblVehicleEF	LHD1	0.01	5.7590e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.14	0.18

tblVehicleEF	LHD1	0.68	0.50
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tblVehicleEF	LHD1	8.97	8.57
tblVehicleEF	LHD1	656.10	751.94
tblVehicleEF	LHD1	28.64	11.22
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tblVehicleEF	LHD1	0.60	0.35
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tblVehicleEF	LHD1	8.6900e-004	8.5300e-004
tblVehicleEF	LHD1	0.01	9.7990e-003
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tblVehicleEF	LHD1	7.3000e-004	2.2400e-004
tblVehicleEF	LHD1	8.3100e-004	8.1600e-004
tblVehicleEF	LHD1	2.5810e-003	2.4500e-003
tblVehicleEF	LHD1	0.01	6.6990e-003
tblVehicleEF	LHD1	6.7100e-004	2.0600e-004
tblVehicleEF	LHD1	8.9400e-004	6.3900e-004
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	4.1900e-004	2.9700e-004
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.27	0.37
tblVehicleEF	LHD1	0.18	0.05
tblVehicleEF	LHD1	8.9000e-005	8.3000e-005
tblVehicleEF	LHD1	6.4190e-003	7.3400e-003
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tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	4.1900e-004	2.9700e-004

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tblVehicleEF	LHD1	0.27	0.37
tblVehicleEF	LHD1	0.20	0.06
tblVehicleEF	LHD2	2.9820e-003	2.8930e-003
tblVehicleEF	LHD2	5.8340e-003	5.4660e-003
tblVehicleEF	LHD2	4.3710e-003	5.9890e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.45	0.46
tblVehicleEF	LHD2	0.99	0.57
tblVehicleEF	LHD2	13.72	13.29
tblVehicleEF	LHD2	689.14	728.51
tblVehicleEF	LHD2	23.21	7.48
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.30	0.37
tblVehicleEF	LHD2	0.34	0.15
tblVehicleEF	LHD2	1.1500e-003	1.4140e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9090e-003	0.01
tblVehicleEF	LHD2	3.8100e-004	1.2000e-004
tblVehicleEF	LHD2	1.1000e-003	1.3530e-003
tblVehicleEF	LHD2	2.6980e-003	2.6890e-003
tblVehicleEF	LHD2	9.4570e-003	0.01
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tblVehicleEF	LHD2	4.3600e-004	5.6800e-004
tblVehicleEF	LHD2	0.02	0.03
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tblVehicleEF	LHD2	3.0000e-004	3.7300e-004
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.05	0.17
tblVehicleEF	LHD2	0.06	0.03

tblVehicleEF	LHD2	1.3400e-004	1.2700e-004
tblVehicleEF	LHD2	6.6990e-003	7.0360e-003
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tblVehicleEF	LHD2	4.3600e-004	5.6800e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.0000e-004	3.7300e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.05	0.17
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tblVehicleEF	LHD2	4.1680e-003	5.6520e-003
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tblVehicleEF	LHD2	0.45	0.46
tblVehicleEF	LHD2	0.92	0.53
tblVehicleEF	LHD2	13.72	13.29
tblVehicleEF	LHD2	689.14	728.51
tblVehicleEF	LHD2	23.21	7.41
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tblVehicleEF	LHD2	0.29	0.36
tblVehicleEF	LHD2	0.32	0.14
tblVehicleEF	LHD2	1.1500e-003	1.4140e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9090e-003	0.01
tblVehicleEF	LHD2	3.8100e-004	1.2000e-004
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tblVehicleEF	LHD2	2.6980e-003	2.6890e-003
tblVehicleEF	LHD2	9.4570e-003	0.01
tblVehicleEF	LHD2	3.5000e-004	1.1000e-004

tblVehicleEF	LHD2	1.0340e-003	1.3590e-003
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.06	0.03
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tblVehicleEF	LHD2	6.6990e-003	7.0360e-003
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tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	5.0400e-004	6.3000e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.06	0.03
tblVehicleEF	LHD2	2.9820e-003	2.8870e-003
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tblVehicleEF	LHD2	4.5250e-003	6.2410e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.45	0.46
tblVehicleEF	LHD2	1.05	0.60
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tblVehicleEF	LHD2	689.14	728.50
tblVehicleEF	LHD2	23.21	7.53
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.31	0.38
tblVehicleEF	LHD2	0.35	0.16
tblVehicleEF	LHD2	1.1500e-003	1.4140e-003

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.9090e-003	0.01
tblVehicleEF	LHD2	3.8100e-004	1.2000e-004
tblVehicleEF	LHD2	1.1000e-003	1.3530e-003
tblVehicleEF	LHD2	2.6980e-003	2.6890e-003
tblVehicleEF	LHD2	9.4570e-003	0.01
tblVehicleEF	LHD2	3.5000e-004	1.1000e-004
tblVehicleEF	LHD2	2.7200e-004	3.4600e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.05	0.19
tblVehicleEF	LHD2	0.06	0.03
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tblVehicleEF	LHD2	6.6990e-003	7.0360e-003
tblVehicleEF	LHD2	2.5000e-004	7.5000e-005
tblVehicleEF	LHD2	2.7200e-004	3.4600e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3300e-004	1.6400e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.05	0.19
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	MCY	0.46	0.33
tblVehicleEF	MCY	0.16	0.26
tblVehicleEF	MCY	18.12	18.30
tblVehicleEF	MCY	10.44	9.27
tblVehicleEF	MCY	173.27	212.79
tblVehicleEF	MCY	42.90	59.80

tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1390e-003	2.1570e-003
tblVehicleEF	MCY	3.5490e-003	3.1010e-003
tblVehicleEF	MCY	1.9950e-003	2.0130e-003
tblVehicleEF	MCY	3.3260e-003	2.9050e-003
tblVehicleEF	MCY	0.60	0.60
tblVehicleEF	MCY	0.51	0.51
tblVehicleEF	MCY	0.35	0.35
tblVehicleEF	MCY	2.15	2.17
tblVehicleEF	MCY	0.43	1.71
tblVehicleEF	MCY	2.16	1.93
tblVehicleEF	MCY	2.0930e-003	2.1060e-003
tblVehicleEF	MCY	6.6300e-004	5.9200e-004
tblVehicleEF	MCY	0.60	0.60
tblVehicleEF	MCY	0.51	0.51
tblVehicleEF	MCY	0.35	0.35
tblVehicleEF	MCY	2.70	2.71
tblVehicleEF	MCY	0.43	1.71
tblVehicleEF	MCY	2.35	2.10
tblVehicleEF	MCY	0.45	0.32
tblVehicleEF	MCY	0.13	0.22
tblVehicleEF	MCY	17.05	17.20
tblVehicleEF	MCY	9.01	7.93
tblVehicleEF	MCY	173.27	210.76
tblVehicleEF	MCY	42.90	56.60
tblVehicleEF	MCY	1.01	1.01
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.1390e-003	2.1570e-003
tblVehicleEF	MCY	3.5490e-003	3.1010e-003

tblVehicleEF	MCY	1.9950e-003	2.0130e-003
tblVehicleEF	MCY	3.3260e-003	2.9050e-003
tblVehicleEF	MCY	1.79	1.80
tblVehicleEF	MCY	0.62	0.63
tblVehicleEF	MCY	0.87	0.87
tblVehicleEF	MCY	2.08	2.09
tblVehicleEF	MCY	0.39	1.55
tblVehicleEF	MCY	1.82	1.61
tblVehicleEF	MCY	2.0740e-003	2.0860e-003
tblVehicleEF	MCY	6.3000e-004	5.6000e-004
tblVehicleEF	MCY	1.79	1.80
tblVehicleEF	MCY	0.62	0.63
tblVehicleEF	MCY	0.87	0.87
tblVehicleEF	MCY	2.61	2.61
tblVehicleEF	MCY	0.39	1.55
tblVehicleEF	MCY	1.99	1.75
tblVehicleEF	MCY	0.48	0.33
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.35	19.55
tblVehicleEF	MCY	11.75	10.49
tblVehicleEF	MCY	173.27	215.03
tblVehicleEF	MCY	42.90	62.61
tblVehicleEF	MCY	1.22	1.22
tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	2.1390e-003	2.1570e-003
tblVehicleEF	MCY	3.5490e-003	3.1010e-003
tblVehicleEF	MCY	1.9950e-003	2.0130e-003
tblVehicleEF	MCY	3.3260e-003	2.9050e-003
tblVehicleEF	MCY	0.25	0.25
tblVehicleEF	MCY	0.62	0.62

tblVehicleEF	MCY	0.11	0.12
tblVehicleEF	MCY	2.22	2.24
tblVehicleEF	MCY	0.52	2.07
tblVehicleEF	MCY	2.44	2.19
tblVehicleEF	MCY	2.1150e-003	2.1280e-003
tblVehicleEF	MCY	6.9300e-004	6.2000e-004
tblVehicleEF	MCY	0.25	0.25
tblVehicleEF	MCY	0.62	0.62
tblVehicleEF	MCY	0.11	0.12
tblVehicleEF	MCY	2.79	2.80
tblVehicleEF	MCY	0.52	2.07
tblVehicleEF	MCY	2.66	2.39
tblVehicleEF	MDV	5.0930e-003	1.9550e-003
tblVehicleEF	MDV	8.0210e-003	0.05
tblVehicleEF	MDV	0.65	0.55
tblVehicleEF	MDV	1.63	2.63
tblVehicleEF	MDV	393.72	330.48
tblVehicleEF	MDV	90.82	69.96
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.12	0.21
tblVehicleEF	MDV	1.7140e-003	1.3270e-003
tblVehicleEF	MDV	2.3890e-003	1.7040e-003
tblVehicleEF	MDV	1.5790e-003	1.2230e-003
tblVehicleEF	MDV	2.1970e-003	1.5670e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.01	7.6550e-003
tblVehicleEF	MDV	0.09	0.29
tblVehicleEF	MDV	0.11	0.25

tblVehicleEF	MDV	3.9360e-003	3.2660e-003
tblVehicleEF	MDV	9.3600e-004	6.9200e-004
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.10	0.08
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.29
tblVehicleEF	MDV	0.12	0.27
tblVehicleEF	MDV	5.5440e-003	2.1630e-003
tblVehicleEF	MDV	6.7450e-003	0.05
tblVehicleEF	MDV	0.74	0.63
tblVehicleEF	MDV	1.30	2.07
tblVehicleEF	MDV	417.41	343.41
tblVehicleEF	MDV	90.82	68.94
tblVehicleEF	MDV	0.06	0.03
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.7140e-003	1.3270e-003
tblVehicleEF	MDV	2.3890e-003	1.7040e-003
tblVehicleEF	MDV	1.5790e-003	1.2230e-003
tblVehicleEF	MDV	2.1970e-003	1.5670e-003
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.01	8.3030e-003
tblVehicleEF	MDV	0.08	0.26
tblVehicleEF	MDV	0.09	0.21
tblVehicleEF	MDV	4.1740e-003	3.3940e-003
tblVehicleEF	MDV	9.3000e-004	6.8200e-004
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.11	0.09

tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.26
tblVehicleEF	MDV	0.10	0.23
tblVehicleEF	MDV	5.0120e-003	1.9020e-003
tblVehicleEF	MDV	8.9290e-003	0.06
tblVehicleEF	MDV	0.65	0.55
tblVehicleEF	MDV	1.87	3.03
tblVehicleEF	MDV	392.27	329.70
tblVehicleEF	MDV	90.82	70.68
tblVehicleEF	MDV	0.08	0.04
tblVehicleEF	MDV	0.13	0.23
tblVehicleEF	MDV	1.7140e-003	1.3270e-003
tblVehicleEF	MDV	2.3890e-003	1.7040e-003
tblVehicleEF	MDV	1.5790e-003	1.2230e-003
tblVehicleEF	MDV	2.1970e-003	1.5670e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.08
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.01	7.5430e-003
tblVehicleEF	MDV	0.11	0.36
tblVehicleEF	MDV	0.12	0.27
tblVehicleEF	MDV	3.9220e-003	3.2580e-003
tblVehicleEF	MDV	9.4000e-004	6.9900e-004
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.11	0.36
tblVehicleEF	MDV	0.13	0.30

tblVehicleEF	MH	0.01	5.5960e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.67	0.42
tblVehicleEF	MH	3.91	1.78
tblVehicleEF	MH	1,185.18	1,419.69
tblVehicleEF	MH	56.59	16.60
tblVehicleEF	MH	0.80	0.92
tblVehicleEF	MH	0.59	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1800e-004	2.4300e-004
tblVehicleEF	MH	3.2240e-003	3.2800e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4400e-004	2.2300e-004
tblVehicleEF	MH	0.29	0.25
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.13	0.11
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	9.5900e-003	0.56
tblVehicleEF	MH	0.22	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3400e-004	1.6400e-004
tblVehicleEF	MH	0.29	0.25
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.13	0.11
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	9.5900e-003	0.56
tblVehicleEF	MH	0.24	0.09
tblVehicleEF	MH	0.01	5.7580e-003
tblVehicleEF	MH	0.02	0.02

tblVehicleEF	MH	0.69	0.44
tblVehicleEF	MH	3.60	1.64
tblVehicleEF	MH	1,185.18	1,419.71
tblVehicleEF	MH	56.59	16.36
tblVehicleEF	MH	0.76	0.88
tblVehicleEF	MH	0.54	0.21
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1800e-004	2.4300e-004
tblVehicleEF	MH	3.2240e-003	3.2800e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4400e-004	2.2300e-004
tblVehicleEF	MH	0.67	0.58
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.22	0.19
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	9.2590e-003	0.54
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.2800e-004	1.6200e-004
tblVehicleEF	MH	0.67	0.58
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.22	0.19
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	9.2590e-003	0.54
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MH	0.01	5.4930e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.65	0.41
tblVehicleEF	MH	4.18	1.90

tblVehicleEF	MH	1,185.18	1,419.67
tblVehicleEF	MH	56.59	16.80
tblVehicleEF	MH	0.82	0.94
tblVehicleEF	MH	0.62	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1800e-004	2.4300e-004
tblVehicleEF	MH	3.2240e-003	3.2800e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4400e-004	2.2300e-004
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.60
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3800e-004	1.6600e-004
tblVehicleEF	MH	0.17	0.15
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.01	0.60
tblVehicleEF	MH	0.25	0.09
tblVehicleEF	MHD	0.02	3.9340e-003
tblVehicleEF	MHD	3.2730e-003	1.4090e-003
tblVehicleEF	MHD	0.04	9.5150e-003
tblVehicleEF	MHD	0.36	0.38
tblVehicleEF	MHD	0.28	0.19
tblVehicleEF	MHD	4.58	1.06

tblVehicleEF	MHD	135.16	61.97
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tblVehicleEF	MHD	58.95	9.62
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tblVehicleEF	MHD	1.02	1.30
tblVehicleEF	MHD	10.30	1.66
tblVehicleEF	MHD	7.5000e-005	2.4000e-004
tblVehicleEF	MHD	2.9360e-003	6.2030e-003
tblVehicleEF	MHD	8.3500e-004	1.1800e-004
tblVehicleEF	MHD	7.2000e-005	2.3000e-004
tblVehicleEF	MHD	2.8030e-003	5.9280e-003
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tblVehicleEF	MHD	5.2400e-004	2.6600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.5100e-004	1.7600e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.01	0.09
tblVehicleEF	MHD	0.27	0.05
tblVehicleEF	MHD	1.3020e-003	5.8900e-004
tblVehicleEF	MHD	0.01	9.9640e-003
tblVehicleEF	MHD	6.6900e-004	9.5000e-005
tblVehicleEF	MHD	5.2400e-004	2.6600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.5100e-004	1.7600e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.01	0.09
tblVehicleEF	MHD	0.30	0.05
tblVehicleEF	MHD	0.01	3.7030e-003

tblVehicleEF	MHD	3.3280e-003	1.4490e-003
tblVehicleEF	MHD	0.04	8.9390e-003
tblVehicleEF	MHD	0.25	0.32
tblVehicleEF	MHD	0.28	0.20
tblVehicleEF	MHD	4.19	0.97
tblVehicleEF	MHD	143.32	61.95
tblVehicleEF	MHD	1,176.19	1,043.82
tblVehicleEF	MHD	58.95	9.46
tblVehicleEF	MHD	0.37	0.33
tblVehicleEF	MHD	0.98	1.24
tblVehicleEF	MHD	10.26	1.65
tblVehicleEF	MHD	6.3000e-005	2.0600e-004
tblVehicleEF	MHD	2.9360e-003	6.2030e-003
tblVehicleEF	MHD	8.3500e-004	1.1800e-004
tblVehicleEF	MHD	6.1000e-005	1.9700e-004
tblVehicleEF	MHD	2.8030e-003	5.9280e-003
tblVehicleEF	MHD	7.6800e-004	1.0900e-004
tblVehicleEF	MHD	1.2670e-003	6.4600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	6.0600e-004	3.0500e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.01	0.08
tblVehicleEF	MHD	0.26	0.05
tblVehicleEF	MHD	1.3780e-003	5.8800e-004
tblVehicleEF	MHD	0.01	9.9640e-003
tblVehicleEF	MHD	6.6300e-004	9.4000e-005
tblVehicleEF	MHD	1.2670e-003	6.4600e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.02

tblVehicleEF	MHD	6.0600e-004	3.0500e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.01	0.08
tblVehicleEF	MHD	0.28	0.05
tblVehicleEF	MHD	0.02	4.1630e-003
tblVehicleEF	MHD	3.2380e-003	1.3830e-003
tblVehicleEF	MHD	0.04	9.9090e-003
tblVehicleEF	MHD	0.48	0.45
tblVehicleEF	MHD	0.28	0.19
tblVehicleEF	MHD	4.89	1.13
tblVehicleEF	MHD	124.24	62.13
tblVehicleEF	MHD	1,176.19	1,043.80
tblVehicleEF	MHD	58.95	9.74
tblVehicleEF	MHD	0.34	0.35
tblVehicleEF	MHD	1.04	1.32
tblVehicleEF	MHD	10.34	1.66
tblVehicleEF	MHD	9.1000e-005	2.8900e-004
tblVehicleEF	MHD	2.9360e-003	6.2030e-003
tblVehicleEF	MHD	8.3500e-004	1.1800e-004
tblVehicleEF	MHD	8.7000e-005	2.7600e-004
tblVehicleEF	MHD	2.8030e-003	5.9280e-003
tblVehicleEF	MHD	7.6800e-004	1.0900e-004
tblVehicleEF	MHD	3.1900e-004	1.6000e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.5200e-004	7.5000e-005
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.29	0.05
tblVehicleEF	MHD	1.1990e-003	5.9000e-004

tblVehicleEF	MHD	0.01	9.9640e-003
tblVehicleEF	MHD	6.7500e-004	9.6000e-005
tblVehicleEF	MHD	3.1900e-004	1.6000e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.5200e-004	7.5000e-005
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.31	0.06
tblVehicleEF	OBUS	0.01	6.7000e-003
tblVehicleEF	OBUS	4.6710e-003	2.5540e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.24	0.63
tblVehicleEF	OBUS	0.35	0.31
tblVehicleEF	OBUS	4.29	1.48
tblVehicleEF	OBUS	119.16	103.58
tblVehicleEF	OBUS	1,289.22	1,286.62
tblVehicleEF	OBUS	64.48	12.91
tblVehicleEF	OBUS	0.26	0.44
tblVehicleEF	OBUS	0.95	1.48
tblVehicleEF	OBUS	3.00	1.21
tblVehicleEF	OBUS	2.4000e-005	1.4300e-004
tblVehicleEF	OBUS	2.9450e-003	7.6570e-003
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tblVehicleEF	OBUS	2.7980e-003	7.3130e-003
tblVehicleEF	OBUS	8.2200e-004	1.3300e-004
tblVehicleEF	OBUS	7.7800e-004	7.6700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.05

tblVehicleEF	OBUS	4.1700e-004	4.0100e-004
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tblVehicleEF	OBUS	1.1480e-003	9.8300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2000e-004	1.2800e-004
tblVehicleEF	OBUS	7.7800e-004	7.6700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	4.1700e-004	4.0100e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.14
tblVehicleEF	OBUS	0.29	0.08
tblVehicleEF	OBUS	0.01	6.7980e-003
tblVehicleEF	OBUS	4.7870e-003	2.6380e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.24	0.62
tblVehicleEF	OBUS	0.35	0.32
tblVehicleEF	OBUS	3.95	1.36
tblVehicleEF	OBUS	125.29	102.29
tblVehicleEF	OBUS	1,289.22	1,286.63
tblVehicleEF	OBUS	64.48	12.71
tblVehicleEF	OBUS	0.27	0.42
tblVehicleEF	OBUS	0.91	1.42
tblVehicleEF	OBUS	2.95	1.20
tblVehicleEF	OBUS	2.0000e-005	1.2700e-004
tblVehicleEF	OBUS	2.9450e-003	7.6570e-003
tblVehicleEF	OBUS	8.9400e-004	1.4400e-004
tblVehicleEF	OBUS	1.9000e-005	1.2200e-004

tblVehicleEF	OBUS	2.7980e-003	7.3130e-003
tblVehicleEF	OBUS	8.2200e-004	1.3300e-004
tblVehicleEF	OBUS	1.7800e-003	1.7440e-003
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tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	7.1600e-004	6.7600e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.14
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tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	7.1600e-004	6.7600e-004
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tblVehicleEF	OBUS	0.02	0.14
tblVehicleEF	OBUS	0.27	0.07
tblVehicleEF	OBUS	0.01	6.5780e-003
tblVehicleEF	OBUS	4.5970e-003	2.5000e-003
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tblVehicleEF	OBUS	0.34	0.31
tblVehicleEF	OBUS	4.57	1.58
tblVehicleEF	OBUS	110.68	105.36
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tblVehicleEF	OBUS	0.97	1.51

tblVehicleEF	OBUS	3.04	1.22
tblVehicleEF	OBUS	2.9000e-005	1.6500e-004
tblVehicleEF	OBUS	2.9450e-003	7.6570e-003
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tblVehicleEF	OBUS	2.8000e-005	1.5800e-004
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tblVehicleEF	OBUS	8.2200e-004	1.3300e-004
tblVehicleEF	OBUS	5.1600e-004	5.0400e-004
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tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.6000e-004	1.5400e-004
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tblVehicleEF	OBUS	5.1600e-004	5.0400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	1.6000e-004	1.5400e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.16
tblVehicleEF	OBUS	0.30	0.08
tblVehicleEF	SBUS	0.83	0.11
tblVehicleEF	SBUS	0.01	8.8090e-003
tblVehicleEF	SBUS	0.06	0.01
tblVehicleEF	SBUS	12.94	4.01
tblVehicleEF	SBUS	0.72	0.80
tblVehicleEF	SBUS	11.86	1.56

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tblVehicleEF	SBUS	89.56	8.11
tblVehicleEF	SBUS	3.62	3.13
tblVehicleEF	SBUS	1.69	4.12
tblVehicleEF	SBUS	6.20	0.74
tblVehicleEF	SBUS	2.9290e-003	3.4540e-003
tblVehicleEF	SBUS	9.2930e-003	0.01
tblVehicleEF	SBUS	9.2750e-003	0.02
tblVehicleEF	SBUS	1.7340e-003	1.3000e-004
tblVehicleEF	SBUS	2.8030e-003	3.3050e-003
tblVehicleEF	SBUS	2.3230e-003	2.5240e-003
tblVehicleEF	SBUS	8.8370e-003	0.02
tblVehicleEF	SBUS	1.5940e-003	1.1900e-004
tblVehicleEF	SBUS	2.8560e-003	6.7200e-004
tblVehicleEF	SBUS	0.03	8.3910e-003
tblVehicleEF	SBUS	1.55	0.48
tblVehicleEF	SBUS	1.5450e-003	3.3200e-004
tblVehicleEF	SBUS	0.06	0.09
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.59	0.06
tblVehicleEF	SBUS	8.4050e-003	3.5190e-003
tblVehicleEF	SBUS	8.2910e-003	9.3510e-003
tblVehicleEF	SBUS	1.0990e-003	8.0000e-005
tblVehicleEF	SBUS	2.8560e-003	6.7200e-004
tblVehicleEF	SBUS	0.03	8.3910e-003
tblVehicleEF	SBUS	2.25	0.70
tblVehicleEF	SBUS	1.5450e-003	3.3200e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.05

tblVehicleEF	SBUS	0.64	0.06
tblVehicleEF	SBUS	0.83	0.11
tblVehicleEF	SBUS	0.01	9.0070e-003
tblVehicleEF	SBUS	0.05	8.8620e-003
tblVehicleEF	SBUS	12.90	3.97
tblVehicleEF	SBUS	0.74	0.82
tblVehicleEF	SBUS	9.16	1.21
tblVehicleEF	SBUS	855.90	376.40
tblVehicleEF	SBUS	847.81	971.87
tblVehicleEF	SBUS	89.56	7.51
tblVehicleEF	SBUS	3.73	3.20
tblVehicleEF	SBUS	1.61	3.95
tblVehicleEF	SBUS	6.14	0.73
tblVehicleEF	SBUS	2.4700e-003	2.9190e-003
tblVehicleEF	SBUS	9.2930e-003	0.01
tblVehicleEF	SBUS	9.2750e-003	0.02
tblVehicleEF	SBUS	1.7340e-003	1.3000e-004
tblVehicleEF	SBUS	2.3630e-003	2.7930e-003
tblVehicleEF	SBUS	2.3230e-003	2.5240e-003
tblVehicleEF	SBUS	8.8370e-003	0.02
tblVehicleEF	SBUS	1.5940e-003	1.1900e-004
tblVehicleEF	SBUS	6.5390e-003	1.5810e-003
tblVehicleEF	SBUS	0.03	8.6220e-003
tblVehicleEF	SBUS	1.55	0.48
tblVehicleEF	SBUS	2.6690e-003	5.9600e-004
tblVehicleEF	SBUS	0.06	0.09
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.50	0.05
tblVehicleEF	SBUS	8.6260e-003	3.6030e-003
tblVehicleEF	SBUS	8.2910e-003	9.3510e-003

tblVehicleEF	SBUS	1.0540e-003	7.4000e-005
tblVehicleEF	SBUS	6.5390e-003	1.5810e-003
tblVehicleEF	SBUS	0.03	8.6220e-003
tblVehicleEF	SBUS	2.25	0.70
tblVehicleEF	SBUS	2.6690e-003	5.9600e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.55	0.06
tblVehicleEF	SBUS	0.83	0.11
tblVehicleEF	SBUS	0.01	8.6760e-003
tblVehicleEF	SBUS	0.07	0.01
tblVehicleEF	SBUS	13.01	4.06
tblVehicleEF	SBUS	0.71	0.79
tblVehicleEF	SBUS	14.47	1.90
tblVehicleEF	SBUS	800.59	355.35
tblVehicleEF	SBUS	847.81	971.80
tblVehicleEF	SBUS	89.56	8.67
tblVehicleEF	SBUS	3.46	3.02
tblVehicleEF	SBUS	1.72	4.20
tblVehicleEF	SBUS	6.24	0.74
tblVehicleEF	SBUS	3.5650e-003	4.1930e-003
tblVehicleEF	SBUS	9.2930e-003	0.01
tblVehicleEF	SBUS	9.2750e-003	0.02
tblVehicleEF	SBUS	1.7340e-003	1.3000e-004
tblVehicleEF	SBUS	3.4100e-003	4.0120e-003
tblVehicleEF	SBUS	2.3230e-003	2.5240e-003
tblVehicleEF	SBUS	8.8370e-003	0.02
tblVehicleEF	SBUS	1.5940e-003	1.1900e-004
tblVehicleEF	SBUS	1.9120e-003	4.2200e-004
tblVehicleEF	SBUS	0.03	8.6660e-003

tblVehicleEF	SBUS	1.55	0.48
tblVehicleEF	SBUS	5.9700e-004	1.2500e-004
tblVehicleEF	SBUS	0.06	0.09
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.65	0.07
tblVehicleEF	SBUS	8.0990e-003	3.4040e-003
tblVehicleEF	SBUS	8.2900e-003	9.3510e-003
tblVehicleEF	SBUS	1.1430e-003	8.6000e-005
tblVehicleEF	SBUS	1.9120e-003	4.2200e-004
tblVehicleEF	SBUS	0.03	8.6660e-003
tblVehicleEF	SBUS	2.25	0.70
tblVehicleEF	SBUS	5.9700e-004	1.2500e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.72	0.07
tblVehicleEF	UBUS	0.26	1.52
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	3.57	11.42
tblVehicleEF	UBUS	7.08	0.83
tblVehicleEF	UBUS	2,018.95	1,603.69
tblVehicleEF	UBUS	104.71	9.21
tblVehicleEF	UBUS	5.87	0.69
tblVehicleEF	UBUS	14.44	0.10
tblVehicleEF	UBUS	0.59	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	4.9940e-003
tblVehicleEF	UBUS	1.1330e-003	5.3000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8010e-003
tblVehicleEF	UBUS	0.10	4.7760e-003

tblVehicleEF	UBUS	1.0420e-003	4.9000e-005
tblVehicleEF	UBUS	1.5560e-003	6.3800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.0220e-003	4.9700e-004
tblVehicleEF	UBUS	0.30	0.02
tblVehicleEF	UBUS	7.6000e-003	0.08
tblVehicleEF	UBUS	0.56	0.06
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.1750e-003	9.1000e-005
tblVehicleEF	UBUS	1.5560e-003	6.3800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.0220e-003	4.9700e-004
tblVehicleEF	UBUS	0.59	1.55
tblVehicleEF	UBUS	7.6000e-003	0.08
tblVehicleEF	UBUS	0.61	0.07
tblVehicleEF	UBUS	0.26	1.52
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	3.59	11.42
tblVehicleEF	UBUS	5.76	0.68
tblVehicleEF	UBUS	2,018.95	1,603.69
tblVehicleEF	UBUS	104.71	8.95
tblVehicleEF	UBUS	5.63	0.69
tblVehicleEF	UBUS	14.37	0.09
tblVehicleEF	UBUS	0.59	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	4.9940e-003
tblVehicleEF	UBUS	1.1330e-003	5.3000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8010e-003
tblVehicleEF	UBUS	0.10	4.7760e-003

tblVehicleEF	UBUS	1.0420e-003	4.9000e-005
tblVehicleEF	UBUS	3.7840e-003	1.4450e-003
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.7950e-003	8.0900e-004
tblVehicleEF	UBUS	0.30	0.02
tblVehicleEF	UBUS	6.7170e-003	0.07
tblVehicleEF	UBUS	0.49	0.05
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.1520e-003	8.9000e-005
tblVehicleEF	UBUS	3.7840e-003	1.4450e-003
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	1.7950e-003	8.0900e-004
tblVehicleEF	UBUS	0.59	1.55
tblVehicleEF	UBUS	6.7170e-003	0.07
tblVehicleEF	UBUS	0.54	0.06
tblVehicleEF	UBUS	0.26	1.52
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	3.55	11.42
tblVehicleEF	UBUS	8.16	0.95
tblVehicleEF	UBUS	2,018.95	1,603.69
tblVehicleEF	UBUS	104.71	9.43
tblVehicleEF	UBUS	5.96	0.69
tblVehicleEF	UBUS	14.48	0.11
tblVehicleEF	UBUS	0.59	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	4.9940e-003
tblVehicleEF	UBUS	1.1330e-003	5.3000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8010e-003
tblVehicleEF	UBUS	0.10	4.7760e-003

tblVehicleEF	UBUS	1.0420e-003	4.9000e-005
tblVehicleEF	UBUS	1.0480e-003	4.8800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	4.0800e-004	2.2200e-004
tblVehicleEF	UBUS	0.30	0.02
tblVehicleEF	UBUS	9.4720e-003	0.10
tblVehicleEF	UBUS	0.61	0.07
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.1930e-003	9.3000e-005
tblVehicleEF	UBUS	1.0480e-003	4.8800e-004
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	4.0800e-004	2.2200e-004
tblVehicleEF	UBUS	0.58	1.55
tblVehicleEF	UBUS	9.4720e-003	0.10
tblVehicleEF	UBUS	0.66	0.07
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	5.24
tblVehicleTrips	ST_TR	42.04	151.20
tblVehicleTrips	SU_TR	5.86	5.24
tblVehicleTrips	SU_TR	20.43	151.20
tblVehicleTrips	WD_TR	6.65	5.24
tblVehicleTrips	WD_TR	44.32	151.20

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.4320	4.5483	3.4067	7.3300e-003	0.9642	0.1953	1.1595	0.4043	0.1802	0.5845	0.0000	649.8759	649.8759	0.1918	0.0000	654.6709
2023	0.3809	2.9218	3.6953	0.0110	0.6039	0.0933	0.6972	0.1627	0.0876	0.2503	0.0000	1,013.6150	1,013.6150	0.1080	0.0000	1,016.3153
2024	2.4568	2.9960	3.9714	0.0121	0.7042	0.0880	0.7922	0.1896	0.0829	0.2725	0.0000	1,112.5101	1,112.5101	0.1114	0.0000	1,115.2949
2025	2.4314	0.9928	1.4204	4.3000e-003	0.2661	0.0275	0.2937	0.0716	0.0260	0.0976	0.0000	395.7597	395.7597	0.0379	0.0000	396.7079
Maximum	**2.4568**	**4.5483**	**3.9714**	**0.0121**	**0.9642**	**0.1953**	**1.1595**	**0.4043**	**0.1802**	**0.5845**	**0.0000**	**1,112.5101**	**1,112.5101**	**0.1918**	**0.0000**	**1,115.2949**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0922	0.4996	3.8331	7.3300e-003	0.4263	0.0115	0.4378	0.1767	0.0115	0.1882	0.0000	649.8752	649.8752	0.1918	0.0000	654.6701
2023	0.2497	1.4282	3.8920	0.0110	0.5735	0.0159	0.5894	0.1552	0.0156	0.1708	0.0000	1,013.6147	1,013.6147	0.1080	0.0000	1,016.3149
2024	2.3321	1.5770	4.1627	0.0121	0.6686	0.0189	0.6874	0.1809	0.0185	0.1994	0.0000	1,112.5097	1,112.5097	0.1114	0.0000	1,115.2946
2025	2.3934	0.5574	1.4878	4.3000e-003	0.2527	7.7900e-003	0.2604	0.0683	7.6600e-003	0.0759	0.0000	395.7596	395.7596	0.0379	0.0000	396.7078
Maximum	**2.3934**	**1.5770**	**4.1627**	**0.0121**	**0.6686**	**0.0189**	**0.6874**	**0.1809**	**0.0185**	**0.1994**	**0.0000**	**1,112.5097**	**1,112.5097**	**0.1918**	**0.0000**	**1,115.2946**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**11.11**	**64.55**	**-7.06**	**0.00**	**24.32**	**86.62**	**32.88**	**29.84**	**85.86**	**47.36**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2022	3-31-2022	0.9874	0.1551
2	4-1-2022	6-30-2022	1.1638	0.1256
3	7-1-2022	9-30-2022	1.4173	0.1554
4	10-1-2022	12-31-2022	1.4029	0.1546
5	1-1-2023	3-31-2023	0.6891	0.3134
6	4-1-2023	6-30-2023	0.8638	0.4488
7	7-1-2023	9-30-2023	0.8733	0.4538
8	10-1-2023	12-31-2023	0.8871	0.4676
9	1-1-2024	3-31-2024	0.8313	0.4484
10	4-1-2024	6-30-2024	0.8181	0.4351
11	7-1-2024	9-30-2024	1.3518	0.9646
12	10-1-2024	12-31-2024	2.4515	2.0643
13	1-1-2025	3-31-2025	2.3491	2.0032
14	4-1-2025	6-30-2025	1.0569	0.9339
		Highest	2.4515	2.0643

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3659	0.0839	6.4166	4.0600e-003		0.2997	0.2997		0.2997	0.2997	27.5818	18.6796	46.2614	0.0514	1.8100e-003	48.0851
Energy	0.0286	0.2445	0.1045	1.5600e-003		0.0198	0.0198		0.0198	0.0198	0.0000	581.3569	581.3569	0.0585	0.0162	587.6376
Mobile	1.2867	1.7279	11.6455	0.0350	3.8229	0.0229	3.8458	1.0246	0.0213	1.0459	0.0000	3,261.3170	3,261.3170	0.1731	0.0000	3,265.6437
Stationary	0.0125	0.0350	0.0319	6.0000e-005		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003	0.0000	5.8072	5.8072	8.1000e-004	0.0000	5.8275
Waste						0.0000	0.0000		0.0000	0.0000	57.5581	0.0000	57.5581	3.4016	0.0000	142.5977

Water						0.0000	0.0000		0.0000	0.0000	12.6231	22.4075	35.0305	1.3005	0.0314	76.9116
Total	**5.6937**	**2.0913**	**18.1985**	**0.0407**	**3.8229**	**0.3442**	**4.1672**	**1.0246**	**0.3426**	**1.3672**	**97.7629**	**3,889.5682**	**3,987.3311**	**4.9859**	**0.0494**	**4,126.7032**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9700	0.0518	4.4944	2.4000e-004		0.0249	0.0249		0.0249	0.0249	0.0000	7.3505	7.3505	7.0600e-003	0.0000	7.5269
Energy	0.0226	0.1931	0.0825	1.2300e-003		0.0156	0.0156		0.0156	0.0156	0.0000	494.1054	494.1054	0.0524	0.0141	499.6051
Mobile	1.1399	1.1525	8.0559	0.0198	2.1119	0.0138	2.1257	0.5660	0.0128	0.5789	0.0000	1,840.3441	1,840.3441	0.1242	0.0000	1,843.4498
Stationary	0.0125	0.0350	0.0319	6.0000e-005		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003	0.0000	5.8072	5.8072	8.1000e-004	0.0000	5.8275
Waste						0.0000	0.0000		0.0000	0.0000	28.7790	0.0000	28.7790	1.7008	0.0000	71.2989
Water						0.0000	0.0000		0.0000	0.0000	10.0985	18.8280	28.9265	1.0406	0.0252	62.4452
Total	**4.1449**	**1.4323**	**12.6646**	**0.0213**	**2.1119**	**0.0562**	**2.1681**	**0.5660**	**0.0552**	**0.6212**	**38.8775**	**2,366.4351**	**2,405.3126**	**2.9259**	**0.0392**	**2,490.1534**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**27.20**	**31.51**	**30.41**	**47.69**	**44.76**	**83.68**	**47.97**	**44.76**	**83.88**	**54.56**	**60.23**	**39.16**	**39.68**	**41.32**	**20.60**	**39.66**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	4/29/2022	5	85	
2	Site Preparation	Site Preparation	5/1/2022	6/1/2022	5	23	

3	Grading	Grading	6/3/2022	12/30/2022	5	151	
4	Paving	Paving	1/1/2023	2/1/2023	5	23	
5	Building Construction	Building Construction	2/2/2023	5/2/2025	5	587	
6	Architectural Coating	Architectural Coating	9/1/2024	5/15/2025	5	184	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 377.5

Acres of Paving: 6.27

Residential Indoor: 1,225,125; Residential Outdoor: 408,375; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	688.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	325.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	554.00	111.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	111.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0745	0.0000	0.0745	0.0113	0.0000	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1122	1.0931	0.8753	1.6500e-003		0.0528	0.0528		0.0491	0.0491	0.0000	144.4585	144.4585	0.0406	0.0000	145.4729

Total	**0.1122**	**1.0931**	**0.8753**	**1.6500e-003**	**0.0745**	**0.0528**	**0.1273**	**0.0113**	**0.0491**	**0.0604**	**0.0000**	**144.4585**	**144.4585**	**0.0406**	**0.0000**	**145.4729**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7700e-003	0.0941	0.0495	2.7000e-004	5.7600e-003	2.7000e-004	6.0300e-003	1.5800e-003	2.6000e-004	1.8400e-003	0.0000	27.7679	27.7679	3.6500e-003	0.0000	27.8592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5300e-003	9.5000e-004	0.0107	4.0000e-005	5.0200e-003	3.0000e-005	5.0500e-003	1.3400e-003	3.0000e-005	1.3600e-003	0.0000	3.8829	3.8829	7.0000e-005	0.0000	3.8846
Total	**4.3000e-003**	**0.0951**	**0.0602**	**3.1000e-004**	**0.0108**	**3.0000e-004**	**0.0111**	**2.9200e-003**	**2.9000e-004**	**3.2000e-003**	**0.0000**	**31.6508**	**31.6508**	**3.7200e-003**	**0.0000**	**31.7438**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0318	0.0000	0.0318	4.8200e-003	0.0000	4.8200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0197	0.0851	0.9894	1.6500e-003		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	144.4583	144.4583	0.0406	0.0000	145.4727
Total	**0.0197**	**0.0851**	**0.9894**	**1.6500e-003**	**0.0318**	**2.6200e-003**	**0.0345**	**4.8200e-003**	**2.6200e-003**	**7.4400e-003**	**0.0000**	**144.4583**	**144.4583**	**0.0406**	**0.0000**	**145.4727**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7700e-003	0.0941	0.0495	2.7000e-004	5.5000e-003	2.7000e-004	5.7700e-003	1.5200e-003	2.6000e-004	1.7800e-003	0.0000	27.7679	27.7679	3.6500e-003	0.0000	27.8592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5300e-003	9.5000e-004	0.0107	4.0000e-005	4.7600e-003	3.0000e-005	4.7900e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	3.8829	3.8829	7.0000e-005	0.0000	3.8846
Total	**4.3000e-003**	**0.0951**	**0.0602**	**3.1000e-004**	**0.0103**	**3.0000e-004**	**0.0106**	**2.7900e-003**	**2.9000e-004**	**3.0800e-003**	**0.0000**	**31.6508**	**31.6508**	**3.7200e-003**	**0.0000**	**31.7438**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2078	0.0000	0.2078	0.1142	0.0000	0.1142	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0365	0.3805	0.2265	4.4000e-004		0.0185	0.0185		0.0171	0.0171	0.0000	38.4553	38.4553	0.0124	0.0000	38.7662
Total	**0.0365**	**0.3805**	**0.2265**	**4.4000e-004**	**0.2078**	**0.0185**	**0.2263**	**0.1142**	**0.0171**	**0.1313**	**0.0000**	**38.4553**	**38.4553**	**0.0124**	**0.0000**	**38.7662**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.1000e-004	3.4600e-003	1.0000e-005	1.6300e-003	1.0000e-005	1.6400e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.2608	1.2608	2.0000e-005	0.0000	1.2613
Total	**5.0000e-004**	**3.1000e-004**	**3.4600e-003**	**1.0000e-005**	**1.6300e-003**	**1.0000e-005**	**1.6400e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.2608**	**1.2608**	**2.0000e-005**	**0.0000**	**1.2613**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0888	0.0000	0.0888	0.0488	0.0000	0.0488	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3500e-003	0.0232	0.2400	4.4000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	38.4553	38.4553	0.0124	0.0000	38.7662
Total	**5.3500e-003**	**0.0232**	**0.2400**	**4.4000e-004**	**0.0888**	**7.1000e-004**	**0.0895**	**0.0488**	**7.1000e-004**	**0.0495**	**0.0000**	**38.4553**	**38.4553**	**0.0124**	**0.0000**	**38.7662**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.1000e-004	3.4600e-003	1.0000e-005	1.5500e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.2608	1.2608	2.0000e-005	0.0000	1.2613
Total	**5.0000e-004**	**3.1000e-004**	**3.4600e-003**	**1.0000e-005**	**1.5500e-003**	**1.0000e-005**	**1.5500e-003**	**4.1000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.2608**	**1.2608**	**2.0000e-005**	**0.0000**	**1.2613**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6550	0.0000	0.6550	0.2716	0.0000	0.2716	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2737	2.9327	2.1926	4.6900e-003		0.1234	0.1234		0.1136	0.1136	0.0000	411.7362	411.7362	0.1332	0.0000	415.0653
Total	**0.2737**	**2.9327**	**2.1926**	**4.6900e-003**	**0.6550**	**0.1234**	**0.7784**	**0.2716**	**0.1136**	**0.3851**	**0.0000**	**411.7362**	**411.7362**	**0.1332**	**0.0000**	**415.0653**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3100e-003	0.0445	0.0234	1.3000e-004	2.7200e-003	1.3000e-004	2.8500e-003	7.5000e-004	1.2000e-004	8.7000e-004	0.0000	13.1171	13.1171	1.7200e-003	0.0000	13.1602
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6400e-003	2.2600e-003	0.0253	1.0000e-004	0.0119	7.0000e-005	0.0120	3.1600e-003	7.0000e-005	3.2300e-003	0.0000	9.1972	9.1972	1.6000e-004	0.0000	9.2011
Total	**4.9500e-003**	**0.0467**	**0.0486**	**2.3000e-004**	**0.0146**	**2.0000e-004**	**0.0148**	**3.9100e-003**	**1.9000e-004**	**4.1000e-003**	**0.0000**	**22.3143**	**22.3143**	**1.8800e-003**	**0.0000**	**22.3613**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2800	0.0000	0.2800	0.1161	0.0000	0.1161	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0575	0.2492	2.4914	4.6900e-003		7.6700e-003	7.6700e-003		7.6700e-003	7.6700e-003	0.0000	411.7357	411.7357	0.1332	0.0000	415.0648
Total	**0.0575**	**0.2492**	**2.4914**	**4.6900e-003**	**0.2800**	**7.6700e-003**	**0.2877**	**0.1161**	**7.6700e-003**	**0.1238**	**0.0000**	**411.7357**	**411.7357**	**0.1332**	**0.0000**	**415.0648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3100e-003	0.0445	0.0234	1.3000e-004	2.6000e-003	1.3000e-004	2.7300e-003	7.2000e-004	1.2000e-004	8.4000e-004	0.0000	13.1171	13.1171	1.7200e-003	0.0000	13.1602
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6400e-003	2.2600e-003	0.0253	1.0000e-004	0.0113	7.0000e-005	0.0113	3.0100e-003	7.0000e-005	3.0800e-003	0.0000	9.1972	9.1972	1.6000e-004	0.0000	9.2011
Total	**4.9500e-003**	**0.0467**	**0.0486**	**2.3000e-004**	**0.0139**	**2.0000e-004**	**0.0141**	**3.7300e-003**	**1.9000e-004**	**3.9200e-003**	**0.0000**	**22.3143**	**22.3143**	**1.8800e-003**	**0.0000**	**22.3613**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0119	0.1172	0.1677	2.6000e-004		5.8700e-003	5.8700e-003		5.4000e-003	5.4000e-003	0.0000	23.0309	23.0309	7.4500e-003	0.0000	23.2171

Paving	8.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0127**	**0.1172**	**0.1677**	**2.6000e-004**		**5.8700e-003**	**5.8700e-003**		**5.4000e-003**	**5.4000e-003**	**0.0000**	**23.0309**	**23.0309**	**7.4500e-003**	**0.0000**	**23.2171**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.3000e-004	2.6800e-003	1.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.0110	1.0110	2.0000e-005	0.0000	1.0114
Total	**3.9000e-004**	**2.3000e-004**	**2.6800e-003**	**1.0000e-005**	**1.3600e-003**	**1.0000e-005**	**1.3700e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.0110**	**1.0110**	**2.0000e-005**	**0.0000**	**1.0114**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2300e-003	0.0140	0.1989	2.6000e-004		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	23.0309	23.0309	7.4500e-003	0.0000	23.2171
Paving	8.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.0700e-003**	**0.0140**	**0.1989**	**2.6000e-004**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**23.0309**	**23.0309**	**7.4500e-003**	**0.0000**	**23.2171**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.3000e-004	2.6800e-003	1.0000e-005	1.2900e-003	1.0000e-005	1.3000e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0110	1.0110	2.0000e-005	0.0000	1.0114
Total	**3.9000e-004**	**2.3000e-004**	**2.6800e-003**	**1.0000e-005**	**1.2900e-003**	**1.0000e-005**	**1.3000e-003**	**3.4000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**1.0110**	**1.0110**	**2.0000e-005**	**0.0000**	**1.0114**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1864	1.7046	1.9249	3.1900e-003		0.0829	0.0829		0.0780	0.0780	0.0000	274.6886	274.6886	0.0653	0.0000	276.3222
Total	**0.1864**	**1.7046**	**1.9249**	**3.1900e-003**		**0.0829**	**0.0829**		**0.0780**	**0.0780**	**0.0000**	**274.6886**	**274.6886**	**0.0653**	**0.0000**	**276.3222**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0313	1.0106	0.5781	3.2800e-003	0.0858	1.4200e-003	0.0872	0.0248	1.3600e-003	0.0262	0.0000	330.1182	330.1182	0.0291	0.0000	330.8446
Worker	0.1501	0.0892	1.0218	4.2500e-003	0.5168	3.0300e-003	0.5199	0.1375	2.7900e-003	0.1403	0.0000	384.7662	384.7662	6.1500e-003	0.0000	384.9200
Total	**0.1814**	**1.0998**	**1.6000**	**7.5300e-003**	**0.6026**	**4.4500e-003**	**0.6070**	**0.1623**	**4.1500e-003**	**0.1665**	**0.0000**	**714.8845**	**714.8845**	**0.0352**	**0.0000**	**715.7645**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0638	0.3142	2.0905	3.1900e-003		0.0110	0.0110		0.0110	0.0110	0.0000	274.6883	274.6883	0.0653	0.0000	276.3219
Total	**0.0638**	**0.3142**	**2.0905**	**3.1900e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**274.6883**	**274.6883**	**0.0653**	**0.0000**	**276.3219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0313	1.0106	0.5781	3.2800e-003	0.0821	1.4200e-003	0.0836	0.0239	1.3600e-003	0.0253	0.0000	330.1182	330.1182	0.0291	0.0000	330.8446
Worker	0.1501	0.0892	1.0218	4.2500e-003	0.4901	3.0300e-003	0.4931	0.1310	2.7900e-003	0.1338	0.0000	384.7662	384.7662	6.1500e-003	0.0000	384.9200
Total	**0.1814**	**1.0998**	**1.6000**	**7.5300e-003**	**0.5722**	**4.4500e-003**	**0.5766**	**0.1549**	**4.1500e-003**	**0.1590**	**0.0000**	**714.8845**	**714.8845**	**0.0352**	**0.0000**	**715.7645**

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0336	1.0861	0.6489	3.5900e-003	0.0948	1.5000e-003	0.0963	0.0274	1.4400e-003	0.0289	0.0000	361.6702	361.6702	0.0324	0.0000	362.4794
Worker	0.1586	0.0898	1.0556	4.5100e-003	0.5713	3.3100e-003	0.5746	0.1520	3.0400e-003	0.1551	0.0000	408.8118	408.8118	6.1700e-003	0.0000	408.9660
Total	**0.1921**	**1.1759**	**1.7045**	**8.1000e-003**	**0.6662**	**4.8100e-003**	**0.6710**	**0.1795**	**4.4800e-003**	**0.1840**	**0.0000**	**770.4820**	**770.4820**	**0.0385**	**0.0000**	**771.4454**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0681	0.3421	2.3092	3.5300e-003		0.0112	0.0112		0.0112	0.0112	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0681**	**0.3421**	**2.3092**	**3.5300e-003**		**0.0112**	**0.0112**		**0.0112**	**0.0112**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0336	1.0861	0.6489	3.5900e-003	0.0908	1.5000e-003	0.0923	0.0264	1.4400e-003	0.0279	0.0000	361.6702	361.6702	0.0324	0.0000	362.4794
Worker	0.1586	0.0898	1.0556	4.5100e-003	0.5417	3.3100e-003	0.5450	0.1448	3.0400e-003	0.1478	0.0000	408.8118	408.8118	6.1700e-003	0.0000	408.9660
Total	**0.1921**	**1.1759**	**1.7045**	**8.1000e-003**	**0.6326**	**4.8100e-003**	**0.6374**	**0.1712**	**4.4800e-003**	**0.1757**	**0.0000**	**770.4820**	**770.4820**	**0.0385**	**0.0000**	**771.4454**

3.6 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0602	0.5487	0.7077	1.1900e-003		0.0232	0.0232		0.0218	0.0218	0.0000	102.0446	102.0446	0.0240	0.0000	102.6443

Total	**0.0602**	**0.5487**	**0.7077**	**1.1900e-003**		**0.0232**	**0.0232**		**0.0218**	**0.0218**	**0.0000**	**102.0446**	**102.0446**	**0.0240**	**0.0000**	**102.6443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0110	0.3548	0.2213	1.1900e-003	0.0319	4.9000e-004	0.0323	9.2100e-003	4.7000e-004	9.6800e-003	0.0000	120.4046	120.4046	0.0110	0.0000	120.6784
Worker	0.0512	0.0277	0.3306	1.4600e-003	0.1919	1.1000e-003	0.1930	0.0511	1.0100e-003	0.0521	0.0000	131.8155	131.8155	1.8900e-003	0.0000	131.8629
Total	**0.0622**	**0.3825**	**0.5519**	**2.6500e-003**	**0.2238**	**1.5900e-003**	**0.2253**	**0.0603**	**1.4800e-003**	**0.0618**	**0.0000**	**252.2201**	**252.2201**	**0.0128**	**0.0000**	**252.5413**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0222	0.1132	0.7751	1.1900e-003		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	102.0444	102.0444	0.0240	0.0000	102.6441
Total	**0.0222**	**0.1132**	**0.7751**	**1.1900e-003**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**102.0444**	**102.0444**	**0.0240**	**0.0000**	**102.6441**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0110	0.3548	0.2213	1.1900e-003	0.0305	4.9000e-004	0.0310	8.8800e-003	4.7000e-004	9.3500e-003	0.0000	120.4046	120.4046	0.0110	0.0000	120.6784
Worker	0.0512	0.0277	0.3306	1.4600e-003	0.1820	1.1000e-003	0.1831	0.0486	1.0100e-003	0.0496	0.0000	131.8155	131.8155	1.8900e-003	0.0000	131.8629
Total	**0.0622**	**0.3825**	**0.5519**	**2.6500e-003**	**0.2125**	**1.5900e-003**	**0.2141**	**0.0575**	**1.4800e-003**	**0.0590**	**0.0000**	**252.2201**	**252.2201**	**0.0128**	**0.0000**	**252.5413**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8600e-003	0.0530	0.0787	1.3000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	11.1067	11.1067	6.3000e-004	0.0000	11.1223
Total	**2.0613**	**0.0530**	**0.0787**	**1.3000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**11.1067**	**11.1067**	**6.3000e-004**	**0.0000**	**11.1223**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	5.9700e-003	0.0702	3.0000e-004	0.0380	2.2000e-004	0.0382	0.0101	2.0000e-004	0.0103	0.0000	27.1991	27.1991	4.1000e-004	0.0000	27.2094
Total	**0.0106**	**5.9700e-003**	**0.0702**	**3.0000e-004**	**0.0380**	**2.2000e-004**	**0.0382**	**0.0101**	**2.0000e-004**	**0.0103**	**0.0000**	**27.1991**	**27.1991**	**4.1000e-004**	**0.0000**	**27.2094**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0535					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8600e-003	0.0530	0.0787	1.3000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	11.1066	11.1066	6.3000e-004	0.0000	11.1223
Total	**2.0613**	**0.0530**	**0.0787**	**1.3000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**11.1066**	**11.1066**	**6.3000e-004**	**0.0000**	**11.1223**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	5.9700e-003	0.0702	3.0000e-004	0.0360	2.2000e-004	0.0363	9.6300e-003	2.0000e-004	9.8300e-003	0.0000	27.1991	27.1991	4.1000e-004	0.0000	27.2094
Total	**0.0106**	**5.9700e-003**	**0.0702**	**3.0000e-004**	**0.0360**	**2.2000e-004**	**0.0363**	**9.6300e-003**	**2.0000e-004**	**9.8300e-003**	**0.0000**	**27.1991**	**27.1991**	**4.1000e-004**	**0.0000**	**27.2094**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2895					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2900e-003	0.0556	0.0877	1.4000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	12.3833	12.3833	6.8000e-004	0.0000	12.4002
Total	**2.2978**	**0.0556**	**0.0877**	**1.4000e-004**		**2.5000e-003**	**2.5000e-003**		**2.5000e-003**	**2.5000e-003**	**0.0000**	**12.3833**	**12.3833**	**6.8000e-004**	**0.0000**	**12.4002**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0113	6.1100e-003	0.0730	3.2000e-004	0.0424	2.4000e-004	0.0426	0.0113	2.2000e-004	0.0115	0.0000	29.1118	29.1118	4.2000e-004	0.0000	29.1222
Total	**0.0113**	**6.1100e-003**	**0.0730**	**3.2000e-004**	**0.0424**	**2.4000e-004**	**0.0426**	**0.0113**	**2.2000e-004**	**0.0115**	**0.0000**	**29.1118**	**29.1118**	**4.2000e-004**	**0.0000**	**29.1222**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2895					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2900e-003	0.0556	0.0877	1.4000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	12.3833	12.3833	6.8000e-004	0.0000	12.4002
Total	**2.2978**	**0.0556**	**0.0877**	**1.4000e-004**		**2.5000e-003**	**2.5000e-003**		**2.5000e-003**	**2.5000e-003**	**0.0000**	**12.3833**	**12.3833**	**6.8000e-004**	**0.0000**	**12.4002**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0113	6.1100e-003	0.0730	3.2000e-004	0.0402	2.4000e-004	0.0404	0.0107	2.2000e-004	0.0110	0.0000	29.1118	29.1118	4.2000e-004	0.0000	29.1222
Total	**0.0113**	**6.1100e-003**	**0.0730**	**3.2000e-004**	**0.0402**	**2.4000e-004**	**0.0404**	**0.0107**	**2.2000e-004**	**0.0110**	**0.0000**	**29.1118**	**29.1118**	**4.2000e-004**	**0.0000**	**29.1222**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Pedestrian Network

Implement Trip Reduction Program

Transit Subsidy

Encourage Telecommuting and Alternative Work Schedules

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1399	1.1525	8.0559	0.0198	2.1119	0.0138	2.1257	0.5660	0.0128	0.5789	0.0000	1,840.3441	1,840.3441	0.1242	0.0000	1,843.4498
Unmitigated	1.2867	1.7279	11.6455	0.0350	3.8229	0.0229	3.8458	1.0246	0.0213	1.0459	0.0000	3,261.3170	3,261.3170	0.1731	0.0000	3,265.6437

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	3,170.20	3,170.20	3170.20	8,246,147	4,649,372
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	756.00	756.00	756.00	2,109,340	1,071,245
Total	3,926.20	3,926.20	3,926.20	10,355,487	5,720,617

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

Apartments Mid Rise	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824
Enclosed Parking Structure	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824
Parking Lot	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824
Strip Mall	0.461846	0.050659	0.270877	0.142577	0.017053	0.007214	0.025153	0.006646	0.004299	0.003035	0.009295	0.000522	0.000824

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	270.5585	270.5585	0.0481	9.9600e-003	274.7298
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	298.2667	298.2667	0.0531	0.0110	302.8651
NaturalGas Mitigated	0.0226	0.1931	0.0825	1.2300e-003		0.0156	0.0156		0.0156	0.0156	0.0000	223.5468	223.5468	4.2800e-003	4.1000e-003	224.8753
NaturalGas Unmitigated	0.0286	0.2445	0.1045	1.5600e-003		0.0198	0.0198		0.0198	0.0198	0.0000	283.0902	283.0902	5.4300e-003	5.1900e-003	284.7725

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					

Apartments Mid Rise	5.28191e+006	0.0285	0.2434	0.1036	1.5500e-003		0.0197	0.0197		0.0197	0.0197	0.0000	281.8628	281.8628	5.4000e-003	5.1700e-003	283.5378
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	23000	1.2000e-004	1.1300e-003	9.5000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2274	1.2274	2.0000e-005	2.0000e-005	1.2347
Total		**0.0286**	**0.2445**	**0.1045**	**1.5600e-003**		**0.0198**	**0.0198**		**0.0198**	**0.0198**	**0.0000**	**283.0902**	**283.0902**	**5.4200e-003**	**5.1900e-003**	**284.7725**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	4.17196e+006	0.0225	0.1922	0.0818	1.2300e-003		0.0155	0.0155		0.0155	0.0155	0.0000	222.6317	222.6317	4.2700e-003	4.0800e-003	223.9546
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	17150	9.0000e-005	8.4000e-004	7.1000e-004	1.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.9152	0.9152	2.0000e-005	2.0000e-005	0.9206
Total		**0.0226**	**0.1931**	**0.0825**	**1.2400e-003**		**0.0156**	**0.0156**		**0.0156**	**0.0156**	**0.0000**	**223.5468**	**223.5468**	**4.2900e-003**	**4.1000e-003**	**224.8753**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.5543e+006	188.8539	0.0336	6.9500e-003	191.7655

Enclosed Parking Structure	1.4175e+006	104.8037	0.0187	3.8600e-003	106.4194
Parking Lot	9940	0.7349	1.3000e-004	3.0000e-005	0.7463
Strip Mall	52400	3.8742	6.9000e-004	1.4000e-004	3.9340
Total		**298.2667**	**0.0531**	**0.0110**	**302.8651**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.4769e+006	183.1312	0.0326	6.7400e-003	185.9546
Enclosed Parking Structure	1.1235e+006	83.0666	0.0148	3.0600e-003	84.3473
Parking Lot	9940	0.7349	1.3000e-004	3.0000e-005	0.7463
Strip Mall	49040	3.6258	6.5000e-004	1.3000e-004	3.6817
Total		**270.5585**	**0.0481**	**9.9600e-003**	**274.7298**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.9700	0.0518	4.4944	2.4000e-004		0.0249	0.0249		0.0249	0.0249	0.0000	7.3505	7.3505	7.0600e-003	0.0000	7.5269
Unmitigated	4.3659	0.0839	6.4166	4.0600e-003		0.2997	0.2997		0.2997	0.2997	27.5818	18.6796	46.2614	0.0514	1.8100e-003	48.0851

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.3959	0.0321	1.9222	3.8300e-003		0.2748	0.2748		0.2748	0.2748	27.5818	11.3292	38.9109	0.0443	1.8100e-003	40.5582
Landscaping	0.1353	0.0518	4.4944	2.4000e-004		0.0249	0.0249		0.0249	0.0249	0.0000	7.3505	7.3505	7.0600e-003	0.0000	7.5269
Total	**4.3659**	**0.0839**	**6.4166**	**4.0700e-003**		**0.2997**	**0.2997**		**0.2997**	**0.2997**	**27.5818**	**18.6796**	**46.2614**	**0.0514**	**1.8100e-003**	**48.0851**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	2.4004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1353	0.0518	4.4944	2.4000e-004		0.0249	0.0249		0.0249	0.0249	0.0000	7.3505	7.3505	7.0600e-003	0.0000	7.5269
Total	**2.9700**	**0.0518**	**4.4944**	**2.4000e-004**		**0.0249**	**0.0249**		**0.0249**	**0.0249**	**0.0000**	**7.3505**	**7.3505**	**7.0600e-003**	**0.0000**	**7.5269**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	28.9265	1.0406	0.0252	62.4452
Unmitigated	35.0305	1.3005	0.0314	76.9116

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	39.4182 / 24.8506	34.7061	1.2884	0.0312	76.1973
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.370363 / 0.226996	0.3244	0.0121	2.9000e-004	0.7142
Total		**35.0305**	**1.3005**	**0.0314**	**76.9115**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	31.5345 / 23.3347	28.6588	1.0309	0.0250	61.8655
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.29629 / 0.21315	0.2677	9.6900e-003	2.3000e-004	0.5797
Total		**28.9265**	**1.0406**	**0.0252**	**62.4452**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.7790	1.7008	0.0000	71.2989
Unmitigated	57.5581	3.4016	0.0000	142.5977

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	278.3	56.4924	3.3386	0.0000	139.9575
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	5.25	1.0657	0.0630	0.0000	2.6402
Total		**57.5581**	**3.4016**	**0.0000**	**142.5977**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
Apartments Mid Rise	139.15	28.2462	1.6693	0.0000	69.9788
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.625	0.5329	0.0315	0.0000	1.3201
Total		**28.7790**	**1.7008**	**0.0000**	**71.2989**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	4	50	305	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Equipment Type	tons/yr										MT/yr					
Fire Pump - Diesel (300 - 600 HP)	0.0125	0.0350	0.0319	6.0000e-005		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003	0.0000	5.8072	5.8072	8.1000e-004	0.0000	5.8275
Total	**0.0125**	**0.0350**	**0.0319**	**6.0000e-005**		**1.8400e-003**	**1.8400e-003**		**1.8400e-003**	**1.8400e-003**	**0.0000**	**5.8072**	**5.8072**	**8.1000e-004**	**0.0000**	**5.8275**

11.0 Vegetation

Health Risk Model Calculations

Woodland Park

Construction

		$PM_{2.5}$ On-Site Exhaust			
		Mitigated		Unmitigated	
Year	Construction Phase	Tons/Year	g/s	Tons/Year	g/s
2022	Demolition	0.0026	7.54E-05	0.049	1.41E-03
2022	Site Preparation	0.0007	2.04E-05	0.0171	4.92E-04
2022	Grading	0.0077	2.21E-04	0.1136	3.27E-03
2023	Paving	0.0004	1.24E-05	0.0054	1.55E-04
2023	Building Construction	0.0110	3.16E-04	0.0780	2.24E-03
2024	Building Construction	0.0112	3.22E-04	0.0756	2.17E-03
2025	Building Construction	0.0035	9.98E-05	0.0218	6.27E-04
2024	Arch. Coating	0.0027	7.62E-05	0.0027	7.62E-05
2025	Arch. Coating	0.0025	7.19E-05	0.0025	7.19E-05
		max:	3.22E-04	max:	3.27E-03
		0.04		0.37	

Conversions:

1 ton = 907184.7 grams
1 year = 3.15E+07 seconds

County Population: 766,573 San Mateo County See 70 FR 68218, November 9, 2005

	$\mu g/m^3$		
	1 hr	24 hr	Annual
Unmitigated Concentration from AERMOD	2.39873	0.58104	3.06E-01
Mitigated Concentration from AERMOD	0.23619	0.05721	3.01E-02

HARP 2 Risk Summary

Unmitigated

			Cancer		Per 1 million	Chronic	Acute	
INDEX	**POLID**		**CONC**	**INH_RISK**		**RESP**	**CONC**	**RESP**
1	9901	Diesel ExhPI	3.06E-01	9.76E-05	97.55	6.12E-02	2.40E+00	0.0
2	107028	Acrolein	0.0	0.0		0.0	2.40E+00	9.59E-01

Mitigated (Tier 4)

			Cancer		Per 1 million	Chronic	Acute	
INDEX	**POLID**		**CONC**	**INH_RISK**		**RESP**	**CONC**	**RESP**
1	9901	Diesel ExhPI	3.01E-02	9.60E-06	9.60	6.02E-03	2.36E-01	0.0
2	107028	Acrolein	0.0	0.0		0.0	2.36E-01	9.45E-02

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**
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**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.7.0
** Lakes Environmental Software Inc.
** Date: 10/18/2020
** File: C:\Lakes\AERMOD View\Woodland Park\Woodland Park_Const_v2\Woodland
Park_Const_v2.ADI
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**
**
**************************************
** AERMOD Control Pathway
**************************************
**
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CO STARTING
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   MODELOPT DFAULT CONC
   AVERTIME 1 24 ANNUAL
   URBANOPT 766573 San_Mateo_County
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL "Woodland Park_Const_v2.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Onsite Construction
** PREFIX
** Length of Side = 8.00
** Configuration = Adjacent
** Emission Rate = 0.00327
** Vertical Dimension = 5.78
** SZINIT = 2.69
** Nodes = 20
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** 575683.671, 4146412.025, 7.76, 2.89, 3.72
** 575635.803, 4146415.767, 7.58, 2.89, 3.72
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** 575665.107, 4146383.802, 8.06, 2.89, 3.72
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   LOCATION L0000002     VOLUME   575679.216 4146318.049 8.22
   LOCATION L0000003     VOLUME   575687.212 4146317.824 8.21
   LOCATION L0000004     VOLUME   575695.209 4146317.600 8.21
   LOCATION L0000005     VOLUME   575703.206 4146317.375 8.18
   LOCATION L0000006     VOLUME   575711.203 4146317.151 8.12
   LOCATION L0000007     VOLUME   575719.200 4146316.926 8.07
   LOCATION L0000008     VOLUME   575727.197 4146316.701 8.03
   LOCATION L0000009     VOLUME   575735.194 4146316.477 8.02
   LOCATION L0000010     VOLUME   575742.360 4146317.165 8.01
   LOCATION L0000011     VOLUME   575742.895 4146325.147 8.01
   LOCATION L0000012     VOLUME   575743.430 4146333.129 7.75
   LOCATION L0000013     VOLUME   575743.965 4146341.111 7.49
   LOCATION L0000014     VOLUME   575744.500 4146349.094 7.22
   LOCATION L0000015     VOLUME   575745.035 4146357.076 7.02
   LOCATION L0000016     VOLUME   575745.569 4146365.058 7.21
   LOCATION L0000017     VOLUME   575746.104 4146373.040 7.41
   LOCATION L0000018     VOLUME   575746.639 4146381.022 7.61
   LOCATION L0000019     VOLUME   575747.174 4146389.004 7.74
   LOCATION L0000020     VOLUME   575747.709 4146396.986 7.66
   LOCATION L0000021     VOLUME   575742.365 4146402.342 7.63
   LOCATION L0000022     VOLUME   575736.063 4146407.269 7.62
   LOCATION L0000023     VOLUME   575729.760 4146412.195 7.61
   LOCATION L0000024     VOLUME   575723.457 4146417.122 7.63
   LOCATION L0000025     VOLUME   575717.154 4146422.049 7.61
   LOCATION L0000026     VOLUME   575710.851 4146426.976 7.60
   LOCATION L0000027     VOLUME   575704.548 4146431.903 7.61
   LOCATION L0000028     VOLUME   575698.245 4146436.830 7.63
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LOCATION L0000030     VOLUME   575687.526 4146442.095 7.60
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LOCATION L0000032     VOLUME   575685.491 4146426.225 7.69
LOCATION L0000033     VOLUME   575684.474 4146418.290 7.74
LOCATION L0000034     VOLUME   575681.991 4146412.157 7.78
LOCATION L0000035     VOLUME   575674.015 4146412.780 7.77
LOCATION L0000036     VOLUME   575666.040 4146413.404 7.72
LOCATION L0000037     VOLUME   575658.064 4146414.027 7.67
LOCATION L0000038     VOLUME   575650.088 4146414.651 7.61
LOCATION L0000039     VOLUME   575642.113 4146415.274 7.58
LOCATION L0000040     VOLUME   575635.453 4146414.134 7.58
LOCATION L0000041     VOLUME   575633.779 4146406.311 7.67
LOCATION L0000042     VOLUME   575632.106 4146398.488 7.75
LOCATION L0000043     VOLUME   575630.432 4146390.665 7.83
LOCATION L0000044     VOLUME   575628.758 4146382.842 7.90
LOCATION L0000045     VOLUME   575627.084 4146375.019 7.99
LOCATION L0000046     VOLUME   575625.411 4146367.196 8.09
LOCATION L0000047     VOLUME   575623.737 4146359.373 8.15
LOCATION L0000048     VOLUME   575623.457 4146352.573 8.21
LOCATION L0000049     VOLUME   575631.422 4146351.828 8.23
LOCATION L0000050     VOLUME   575639.387 4146351.083 8.18
LOCATION L0000051     VOLUME   575647.353 4146350.338 8.13
LOCATION L0000052     VOLUME   575655.318 4146349.593 8.11
LOCATION L0000053     VOLUME   575663.283 4146348.848 8.12
LOCATION L0000054     VOLUME   575663.546 4146341.782 8.13
LOCATION L0000055     VOLUME   575665.716 4146336.523 8.15
LOCATION L0000056     VOLUME   575673.716 4146336.523 8.18
LOCATION L0000057     VOLUME   575681.716 4146336.523 8.19
LOCATION L0000058     VOLUME   575689.716 4146336.523 8.18
LOCATION L0000059     VOLUME   575697.716 4146336.523 8.18
LOCATION L0000060     VOLUME   575705.716 4146336.523 8.07
LOCATION L0000061     VOLUME   575713.716 4146336.523 7.92
LOCATION L0000062     VOLUME   575721.716 4146336.523 7.76
LOCATION L0000063     VOLUME   575728.078 4146338.276 7.66
LOCATION L0000064     VOLUME   575728.618 4146346.258 7.44
LOCATION L0000065     VOLUME   575729.158 4146354.239 7.23
LOCATION L0000066     VOLUME   575729.698 4146362.221 7.30
LOCATION L0000067     VOLUME   575730.238 4146370.203 7.45
LOCATION L0000068     VOLUME   575730.779 4146378.185 7.60
LOCATION L0000069     VOLUME   575731.319 4146386.166 7.75
LOCATION L0000070     VOLUME   575730.690 4146393.719 7.72
LOCATION L0000071     VOLUME   575725.113 4146399.455 7.70
LOCATION L0000072     VOLUME   575719.537 4146405.191 7.70
LOCATION L0000073     VOLUME   575713.960 4146410.927 7.71
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LOCATION L0000076     VOLUME   575701.399 4146415.868 7.76
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   LOCATION L0000106     VOLUME   575690.780 4146381.355 7.97
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   LOCATION L0000108     VOLUME   575674.853 4146382.873 8.08
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** Source Parameters **
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RE FINISHED
**
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** AERMOD Meteorology Pathway
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   PROFFILE ..\724937.PFL
   SURFDATA 23289 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 2.1 METERS
ME FINISHED
**
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** AERMOD Output Pathway
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   RECTABLE 1 1ST
   RECTABLE 24 1ST
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   PLOTFILE 24 ALL 1ST "WOODLAND PARK_CONST_V2.AD\24H1GALL.PLT" 32
   PLOTFILE ANNUAL ALL "WOODLAND PARK_CONST_V2.AD\AN00GALL.PLT" 33
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OU FINISHED
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** Project Parameters
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** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
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** AERMOD View Ver. 9.7.0
** Lakes Environmental Software Inc.
** Date: 10/18/2020
** File: C:\Lakes\AERMOD View\Woodland Park\Woodland Park_Const_v2\Woodland
Park_Const_v2.ADI
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** AERMOD Control Pathway
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   AVERTIME 1 24 ANNUAL
   URBANOPT 766573 San_Mateo_County
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL "Woodland Park_Const_v2.err"
CO FINISHED
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** AERMOD Source Pathway
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SO STARTING
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** Source ID - Type - X Coord. - Y Coord. **
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** PREFIX
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** Configuration = Adjacent
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   SRCPARAM L0000003       0.00003      2.89      3.72      2.69
   SRCPARAM L0000004       0.00003      2.89      3.72      2.69
   SRCPARAM L0000005       0.00003      2.89      3.72      2.69
   SRCPARAM L0000006       0.00003      2.89      3.72      2.69
   SRCPARAM L0000007       0.00003      2.89      3.72      2.69
   SRCPARAM L0000008       0.00003      2.89      3.72      2.69
   SRCPARAM L0000009       0.00003      2.89      3.72      2.69
   SRCPARAM L0000010       0.00003      2.89      3.72      2.69
   SRCPARAM L0000011       0.00003      2.89      3.72      2.69
   SRCPARAM L0000012       0.00003      2.89      3.72      2.69
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SRCPARAM L0000013       0.00003      2.89      3.72      2.69
SRCPARAM L0000014       0.00003      2.89      3.72      2.69
SRCPARAM L0000015       0.00003      2.89      3.72      2.69
SRCPARAM L0000016       0.00003      2.89      3.72      2.69
SRCPARAM L0000017       0.00003      2.89      3.72      2.69
SRCPARAM L0000018       0.00003      2.89      3.72      2.69
SRCPARAM L0000019       0.00003      2.89      3.72      2.69
SRCPARAM L0000020       0.00003      2.89      3.72      2.69
SRCPARAM L0000021       0.00003      2.89      3.72      2.69
SRCPARAM L0000022       0.00003      2.89      3.72      2.69
SRCPARAM L0000023       0.00003      2.89      3.72      2.69
SRCPARAM L0000024       0.00003      2.89      3.72      2.69
SRCPARAM L0000025       0.00003      2.89      3.72      2.69
SRCPARAM L0000026       0.00003      2.89      3.72      2.69
SRCPARAM L0000027       0.00003      2.89      3.72      2.69
SRCPARAM L0000028       0.00003      2.89      3.72      2.69
SRCPARAM L0000029       0.00003      2.89      3.72      2.69
SRCPARAM L0000030       0.00003      2.89      3.72      2.69
SRCPARAM L0000031       0.00003      2.89      3.72      2.69
SRCPARAM L0000032       0.00003      2.89      3.72      2.69
SRCPARAM L0000033       0.00003      2.89      3.72      2.69
SRCPARAM L0000034       0.00003      2.89      3.72      2.69
SRCPARAM L0000035       0.00003      2.89      3.72      2.69
SRCPARAM L0000036       0.00003      2.89      3.72      2.69
SRCPARAM L0000037       0.00003      2.89      3.72      2.69
SRCPARAM L0000038       0.00003      2.89      3.72      2.69
SRCPARAM L0000039       0.00003      2.89      3.72      2.69
SRCPARAM L0000040       0.00003      2.89      3.72      2.69
SRCPARAM L0000041       0.00003      2.89      3.72      2.69
SRCPARAM L0000042       0.00003      2.89      3.72      2.69
SRCPARAM L0000043       0.00003      2.89      3.72      2.69
SRCPARAM L0000044       0.00003      2.89      3.72      2.69
SRCPARAM L0000045       0.00003      2.89      3.72      2.69
SRCPARAM L0000046       0.00003      2.89      3.72      2.69
SRCPARAM L0000047       0.00003      2.89      3.72      2.69
SRCPARAM L0000048       0.00003      2.89      3.72      2.69
SRCPARAM L0000049       0.00003      2.89      3.72      2.69
SRCPARAM L0000050       0.00003      2.89      3.72      2.69
SRCPARAM L0000051       0.00003      2.89      3.72      2.69
SRCPARAM L0000052       0.00003      2.89      3.72      2.69
SRCPARAM L0000053       0.00003      2.89      3.72      2.69
SRCPARAM L0000054       0.00003      2.89      3.72      2.69
SRCPARAM L0000055       0.00003      2.89      3.72      2.69
SRCPARAM L0000056       0.00003      2.89      3.72      2.69
SRCPARAM L0000057       0.00003      2.89      3.72      2.69
SRCPARAM L0000058       0.00003      2.89      3.72      2.69
SRCPARAM L0000059       0.00003      2.89      3.72      2.69
SRCPARAM L0000060       0.00003      2.89      3.72      2.69
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SRCPARAM L0000061       0.00003      2.89      3.72      2.69
SRCPARAM L0000062       0.00003      2.89      3.72      2.69
SRCPARAM L0000063       0.00003      2.89      3.72      2.69
SRCPARAM L0000064       0.00003      2.89      3.72      2.69
SRCPARAM L0000065       0.00003      2.89      3.72      2.69
SRCPARAM L0000066       0.00003      2.89      3.72      2.69
SRCPARAM L0000067       0.00003      2.89      3.72      2.69
SRCPARAM L0000068       0.00003      2.89      3.72      2.69
SRCPARAM L0000069       0.00003      2.89      3.72      2.69
SRCPARAM L0000070       0.00003      2.89      3.72      2.69
SRCPARAM L0000071       0.00003      2.89      3.72      2.69
SRCPARAM L0000072       0.00003      2.89      3.72      2.69
SRCPARAM L0000073       0.00003      2.89      3.72      2.69
SRCPARAM L0000074       0.00003      2.89      3.72      2.69
SRCPARAM L0000075       0.00003      2.89      3.72      2.69
SRCPARAM L0000076       0.00003      2.89      3.72      2.69
SRCPARAM L0000077       0.00003      2.89      3.72      2.69
SRCPARAM L0000078       0.00003      2.89      3.72      2.69
SRCPARAM L0000079       0.00003      2.89      3.72      2.69
SRCPARAM L0000080       0.00003      2.89      3.72      2.69
SRCPARAM L0000081       0.00003      2.89      3.72      2.69
SRCPARAM L0000082       0.00003      2.89      3.72      2.69
SRCPARAM L0000083       0.00003      2.89      3.72      2.69
SRCPARAM L0000084       0.00003      2.89      3.72      2.69
SRCPARAM L0000085       0.00003      2.89      3.72      2.69
SRCPARAM L0000086       0.00003      2.89      3.72      2.69
SRCPARAM L0000087       0.00003      2.89      3.72      2.69
SRCPARAM L0000088       0.00003      2.89      3.72      2.69
SRCPARAM L0000089       0.00003      2.89      3.72      2.69
SRCPARAM L0000090       0.00003      2.89      3.72      2.69
SRCPARAM L0000091       0.00003      2.89      3.72      2.69
SRCPARAM L0000092       0.00003      2.89      3.72      2.69
SRCPARAM L0000093       0.00003      2.89      3.72      2.69
SRCPARAM L0000094       0.00003      2.89      3.72      2.69
SRCPARAM L0000095       0.00003      2.89      3.72      2.69
SRCPARAM L0000096       0.00003      2.89      3.72      2.69
SRCPARAM L0000097       0.00003      2.89      3.72      2.69
SRCPARAM L0000098       0.00003      2.89      3.72      2.69
SRCPARAM L0000099       0.00003      2.89      3.72      2.69
SRCPARAM L0000100       0.00003      2.89      3.72      2.69
SRCPARAM L0000101       0.00003      2.89      3.72      2.69
SRCPARAM L0000102       0.00003      2.89      3.72      2.69
SRCPARAM L0000103       0.00003      2.89      3.72      2.69
SRCPARAM L0000104       0.00003      2.89      3.72      2.69
SRCPARAM L0000105       0.00003      2.89      3.72      2.69
SRCPARAM L0000106       0.00003      2.89      3.72      2.69
SRCPARAM L0000107       0.00003      2.89      3.72      2.69
SRCPARAM L0000108       0.00003      2.89      3.72      2.69
```

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   SRCPARAM L0000109       0.00003      2.89      3.72      2.69
** ----------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Woodland Park_Const_v2.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\724937.SFC
   PROFFILE ..\724937.PFL
   SURFDATA 23289 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 2.1 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "WOODLAND PARK_CONST_V2.AD\01H1GALL.PLT" 31
   PLOTFILE 24 ALL 1ST "WOODLAND PARK_CONST_V2.AD\24H1GALL.PLT" 32
   PLOTFILE ANNUAL ALL "WOODLAND PARK_CONST_V2.AD\AN00GALL.PLT" 33
   SUMMFILE "Woodland Park_Const_v2.sum"
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************
```

```
↑ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                        ***        23:22:25

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   109 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    766573.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         CCVR_Sub - Meteorological data includes CCVR substitutions
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  2 Short Term Average(s) of:   1-HR  24-HR
     and Calculates ANNUAL Averages

 **This Run Includes:    109 Source(s);       1 Source Group(s); and     154
Receptor(s)

                with:      0 POINT(s), including
```

```
                          Woodland Park_Const_v2.ADO
                        0 POINTCAP(s) and      0 POINTHOR(s)
                and:    109 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with      0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     2.10 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   Woodland Park_Const_v2.err

 **File for Summary of Results:   Woodland Park_Const_v2.sum

 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:22:25
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE VARY BY
L0000001	0	0.30000E-04	575671.2	4146318.3	8.2	2.89	3.72	2.69	YES	
L0000002	0	0.30000E-04	575679.2	4146318.0	8.2	2.89	3.72	2.69	YES	
L0000003	0	0.30000E-04	575687.2	4146317.8	8.2	2.89	3.72	2.69	YES	
L0000004	0	0.30000E-04	575695.2	4146317.6	8.2	2.89	3.72	2.69	YES	
L0000005	0	0.30000E-04	575703.2	4146317.4	8.2	2.89	3.72	2.69	YES	
L0000006	0	0.30000E-04	575711.2	4146317.2	8.1	2.89	3.72	2.69	YES	
L0000007	0	0.30000E-04	575719.2	4146316.9	8.1	2.89	3.72	2.69	YES	
L0000008	0	0.30000E-04	575727.2	4146316.7	8.0	2.89	3.72	2.69	YES	
L0000009	0	0.30000E-04	575735.2	4146316.5	8.0	2.89	3.72	2.69	YES	
L0000010	0	0.30000E-04	575742.4	4146317.2	8.0	2.89	3.72	2.69	YES	
L0000011	0	0.30000E-04	575742.9	4146325.1	8.0	2.89	3.72	2.69	YES	
L0000012	0	0.30000E-04	575743.4	4146333.1	7.8	2.89	3.72	2.69	YES	
L0000013	0	0.30000E-04	575744.0	4146341.1	7.5	2.89	3.72	2.69	YES	
L0000014	0	0.30000E-04	575744.5	4146349.1	7.2	2.89	3.72	2.69	YES	
L0000015	0	0.30000E-04	575745.0	4146357.1	7.0	2.89	3.72	2.69	YES	
L0000016	0	0.30000E-04	575745.6	4146365.1	7.2	2.89	3.72	2.69	YES	

L0000017	0	0.30000E-04	575746.1	4146373.0	7.4	2.89	3.72	2.69 YES
L0000018	0	0.30000E-04	575746.6	4146381.0	7.6	2.89	3.72	2.69 YES
L0000019	0	0.30000E-04	575747.2	4146389.0	7.7	2.89	3.72	2.69 YES
L0000020	0	0.30000E-04	575747.7	4146397.0	7.7	2.89	3.72	2.69 YES
L0000021	0	0.30000E-04	575742.4	4146402.3	7.6	2.89	3.72	2.69 YES
L0000022	0	0.30000E-04	575736.1	4146407.3	7.6	2.89	3.72	2.69 YES
L0000023	0	0.30000E-04	575729.8	4146412.2	7.6	2.89	3.72	2.69 YES
L0000024	0	0.30000E-04	575723.5	4146417.1	7.6	2.89	3.72	2.69 YES
L0000025	0	0.30000E-04	575717.2	4146422.0	7.6	2.89	3.72	2.69 YES
L0000026	0	0.30000E-04	575710.9	4146427.0	7.6	2.89	3.72	2.69 YES
L0000027	0	0.30000E-04	575704.5	4146431.9	7.6	2.89	3.72	2.69 YES
L0000028	0	0.30000E-04	575698.2	4146436.8	7.6	2.89	3.72	2.69 YES
L0000029	0	0.30000E-04	575691.9	4146441.8	7.6	2.89	3.72	2.69 YES
L0000030	0	0.30000E-04	575687.5	4146442.1	7.6	2.89	3.72	2.69 YES
L0000031	0	0.30000E-04	575686.5	4146434.2	7.6	2.89	3.72	2.69 YES
L0000032	0	0.30000E-04	575685.5	4146426.2	7.7	2.89	3.72	2.69 YES
L0000033	0	0.30000E-04	575684.5	4146418.3	7.7	2.89	3.72	2.69 YES
L0000034	0	0.30000E-04	575682.0	4146412.2	7.8	2.89	3.72	2.69 YES
L0000035	0	0.30000E-04	575674.0	4146412.8	7.8	2.89	3.72	2.69 YES
L0000036	0	0.30000E-04	575666.0	4146413.4	7.7	2.89	3.72	2.69 YES
L0000037	0	0.30000E-04	575658.1	4146414.0	7.7	2.89	3.72	2.69 YES
L0000038	0	0.30000E-04	575650.1	4146414.7	7.6	2.89	3.72	2.69 YES
L0000039	0	0.30000E-04	575642.1	4146415.3	7.6	2.89	3.72	2.69 YES
L0000040	0	0.30000E-04	575635.5	4146414.1	7.6	2.89	3.72	2.69 YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE VARY BY
L0000041	0	0.30000E-04	575633.8	4146406.3	7.7	2.89	3.72	2.69	YES	
L0000042	0	0.30000E-04	575632.1	4146398.5	7.8	2.89	3.72	2.69	YES	
L0000043	0	0.30000E-04	575630.4	4146390.7	7.8	2.89	3.72	2.69	YES	
L0000044	0	0.30000E-04	575628.8	4146382.8	7.9	2.89	3.72	2.69	YES	
L0000045	0	0.30000E-04	575627.1	4146375.0	8.0	2.89	3.72	2.69	YES	
L0000046	0	0.30000E-04	575625.4	4146367.2	8.1	2.89	3.72	2.69	YES	
L0000047	0	0.30000E-04	575623.7	4146359.4	8.2	2.89	3.72	2.69	YES	
L0000048	0	0.30000E-04	575623.5	4146352.6	8.2	2.89	3.72	2.69	YES	
L0000049	0	0.30000E-04	575631.4	4146351.8	8.2	2.89	3.72	2.69	YES	
L0000050	0	0.30000E-04	575639.4	4146351.1	8.2	2.89	3.72	2.69	YES	
L0000051	0	0.30000E-04	575647.4	4146350.3	8.1	2.89	3.72	2.69	YES	
L0000052	0	0.30000E-04	575655.3	4146349.6	8.1	2.89	3.72	2.69	YES	
L0000053	0	0.30000E-04	575663.3	4146348.8	8.1	2.89	3.72	2.69	YES	
L0000054	0	0.30000E-04	575663.5	4146341.8	8.1	2.89	3.72	2.69	YES	

L0000055	0	0.30000E-04	575665.7	4146336.5	8.2	2.89	3.72	2.69 YES
L0000056	0	0.30000E-04	575673.7	4146336.5	8.2	2.89	3.72	2.69 YES
L0000057	0	0.30000E-04	575681.7	4146336.5	8.2	2.89	3.72	2.69 YES
L0000058	0	0.30000E-04	575689.7	4146336.5	8.2	2.89	3.72	2.69 YES
L0000059	0	0.30000E-04	575697.7	4146336.5	8.2	2.89	3.72	2.69 YES
L0000060	0	0.30000E-04	575705.7	4146336.5	8.1	2.89	3.72	2.69 YES
L0000061	0	0.30000E-04	575713.7	4146336.5	7.9	2.89	3.72	2.69 YES
L0000062	0	0.30000E-04	575721.7	4146336.5	7.8	2.89	3.72	2.69 YES
L0000063	0	0.30000E-04	575728.1	4146338.3	7.7	2.89	3.72	2.69 YES
L0000064	0	0.30000E-04	575728.6	4146346.3	7.4	2.89	3.72	2.69 YES
L0000065	0	0.30000E-04	575729.2	4146354.2	7.2	2.89	3.72	2.69 YES
L0000066	0	0.30000E-04	575729.7	4146362.2	7.3	2.89	3.72	2.69 YES
L0000067	0	0.30000E-04	575730.2	4146370.2	7.5	2.89	3.72	2.69 YES
L0000068	0	0.30000E-04	575730.8	4146378.2	7.6	2.89	3.72	2.69 YES
L0000069	0	0.30000E-04	575731.3	4146386.2	7.8	2.89	3.72	2.69 YES
L0000070	0	0.30000E-04	575730.7	4146393.7	7.7	2.89	3.72	2.69 YES
L0000071	0	0.30000E-04	575725.1	4146399.5	7.7	2.89	3.72	2.69 YES
L0000072	0	0.30000E-04	575719.5	4146405.2	7.7	2.89	3.72	2.69 YES
L0000073	0	0.30000E-04	575714.0	4146410.9	7.7	2.89	3.72	2.69 YES
L0000074	0	0.30000E-04	575708.4	4146416.7	7.7	2.89	3.72	2.69 YES
L0000075	0	0.30000E-04	575702.8	4146422.4	7.7	2.89	3.72	2.69 YES
L0000076	0	0.30000E-04	575701.4	4146415.9	7.8	2.89	3.72	2.69 YES
L0000077	0	0.30000E-04	575700.5	4146407.9	7.8	2.89	3.72	2.69 YES
L0000078	0	0.30000E-04	575699.5	4146400.0	7.8	2.89	3.72	2.69 YES

 L0000079   0   0.30000E-04 575693.6 4146398.2   7.8   2.89   3.72
2.69   YES
 L0000080   0   0.30000E-04 575685.6 4146398.9   7.9   2.89   3.72
2.69   YES

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE   BASE   RELEASE   INIT.
INIT.   URBAN EMISSION RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT   SY
SZ   SOURCE SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
 -
- - - - - - - - - - - - - - - - - - - -

 L0000081   0   0.30000E-04 575677.7 4146399.7   7.9   2.89   3.72
2.69   YES
 L0000082   0   0.30000E-04 575669.7 4146400.4   7.9   2.89   3.72
2.69   YES
 L0000083   0   0.30000E-04 575661.7 4146401.2   7.9   2.89   3.72
2.69   YES
 L0000084   0   0.30000E-04 575653.8 4146401.9   7.8   2.89   3.72
2.69   YES
 L0000085   0   0.30000E-04 575650.9 4146394.8   7.9   2.89   3.72
2.69   YES
 L0000086   0   0.30000E-04 575648.4 4146387.2   8.0   2.89   3.72
2.69   YES
 L0000087   0   0.30000E-04 575645.9 4146379.6   8.0   2.89   3.72
2.69   YES
 L0000088   0   0.30000E-04 575643.4 4146372.0   8.1   2.89   3.72
2.69   YES
 L0000089   0   0.30000E-04 575642.6 4146365.6   8.1   2.89   3.72
2.69   YES
 L0000090   0   0.30000E-04 575650.5 4146365.0   8.1   2.89   3.72
2.69   YES
 L0000091   0   0.30000E-04 575658.5 4146364.3   8.1   2.89   3.72
2.69   YES
 L0000092   0   0.30000E-04 575666.5 4146363.7   8.1   2.89   3.72
2.69   YES

```
 L0000093         0   0.30000E-04  575674.5 4146363.1     8.1     2.89     3.72
2.69     YES
 L0000094         0   0.30000E-04  575676.3 4146355.6     8.1     2.89     3.72
2.69     YES
 L0000095         0   0.30000E-04  575679.7 4146350.1     8.1     2.89     3.72
2.69     YES
 L0000096         0   0.30000E-04  575687.7 4146350.5     8.1     2.89     3.72
2.69     YES
 L0000097         0   0.30000E-04  575695.7 4146350.8     8.1     2.89     3.72
2.69     YES
 L0000098         0   0.30000E-04  575703.7 4146351.2     8.0     2.89     3.72
2.69     YES
 L0000099         0   0.30000E-04  575711.6 4146351.5     7.7     2.89     3.72
2.69     YES
 L0000100         0   0.30000E-04  575715.7 4146355.6     7.5     2.89     3.72
2.69     YES
 L0000101         0   0.30000E-04  575715.5 4146363.6     7.6     2.89     3.72
2.69     YES
 L0000102         0   0.30000E-04  575715.4 4146371.6     7.7     2.89     3.72
2.69     YES
 L0000103         0   0.30000E-04  575714.7 4146379.1     7.8     2.89     3.72
2.69     YES
 L0000104         0   0.30000E-04  575706.7 4146379.8     7.8     2.89     3.72
2.69     YES
 L0000105         0   0.30000E-04  575698.7 4146380.6     7.9     2.89     3.72
2.69     YES
 L0000106         0   0.30000E-04  575690.8 4146381.4     8.0     2.89     3.72
2.69     YES
 L0000107         0   0.30000E-04  575682.8 4146382.1     8.0     2.89     3.72
2.69     YES
 L0000108         0   0.30000E-04  575674.9 4146382.9     8.1     2.89     3.72
2.69     YES
 L0000109         0   0.30000E-04  575666.9 4146383.6     8.1     2.89     3.72
2.69     YES
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:22:25

                                  PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
 -----------                                                ----------
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```
  ALL        L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
L0000006    , L0000007    , L0000008    ,

             L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
L0000014    , L0000015    , L0000016    ,

             L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
L0000022    , L0000023    , L0000024    ,

             L0000025    , L0000026    , L0000027    , L0000028    , L0000029    ,
L0000030    , L0000031    , L0000032    ,

             L0000033    , L0000034    , L0000035    , L0000036    , L0000037    ,
L0000038    , L0000039    , L0000040    ,

             L0000041    , L0000042    , L0000043    , L0000044    , L0000045    ,
L0000046    , L0000047    , L0000048    ,

             L0000049    , L0000050    , L0000051    , L0000052    , L0000053    ,
L0000054    , L0000055    , L0000056    ,

             L0000057    , L0000058    , L0000059    , L0000060    , L0000061    ,
L0000062    , L0000063    , L0000064    ,

             L0000065    , L0000066    , L0000067    , L0000068    , L0000069    ,
L0000070    , L0000071    , L0000072    ,

             L0000073    , L0000074    , L0000075    , L0000076    , L0000077    ,
L0000078    , L0000079    , L0000080    ,

             L0000081    , L0000082    , L0000083    , L0000084    , L0000085    ,
L0000086    , L0000087    , L0000088    ,

             L0000089    , L0000090    , L0000091    , L0000092    , L0000093    ,
L0000094    , L0000095    , L0000096    ,

             L0000097    , L0000098    , L0000099    , L0000100    , L0000101    ,
L0000102    , L0000103    , L0000104    ,

             L0000105    , L0000106    , L0000107    , L0000108    , L0000109    ,
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	766573.	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
		L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
		L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
		L0000025 , L0000026 , L0000027 , L0000028 , L0000029 , L0000030 , L0000031 , L0000032 ,
		L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 , L0000040 ,
		L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 ,
		L0000049 , L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 ,
		L0000057 , L0000058 , L0000059 , L0000060 , L0000061 , L0000062 , L0000063 , L0000064 ,
		L0000065 , L0000066 , L0000067 , L0000068 , L0000069 , L0000070 , L0000071 , L0000072 ,
		L0000073 , L0000074 , L0000075 , L0000076 , L0000077 , L0000078 , L0000079 , L0000080 ,
		L0000081 , L0000082 , L0000083 , L0000084 , L0000085 , L0000086 , L0000087 , L0000088 ,
		L0000089 , L0000090 , L0000091 , L0000092 , L0000093 , L0000094 , L0000095 , L0000096 ,
		L0000097 , L0000098 , L0000099 , L0000100 , L0000101 ,

L0000102 , L0000103 , L0000104 ,

L0000105 , L0000106 , L0000107 , L0000108 , L0000109 ,
*** AERMOD - VERSION 18081 *** *** C:\Lakes\AERMOD View\Woodland Park\Woodland Park_Const\Woodland Park *** 10/18/20
*** AERMET - VERSION 14134 *** ***
*** 23:22:25

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(575471.9, 4146008.1, 11.2, 11.2, 0.0); (575511.9, 4146008.1, 11.3, 11.3, 0.0);
(575551.9, 4146008.1, 8.4, 11.7, 0.0); (575591.9, 4146008.1, 11.2, 11.2, 0.0);
(575631.9, 4146008.1, 11.0, 11.0, 0.0); (575671.9, 4146008.1, 10.8, 10.8, 0.0);
(575711.9, 4146008.1, 10.7, 10.7, 0.0); (575751.9, 4146008.1, 9.6, 9.6, 0.0);
(575791.9, 4146008.1, 10.7, 10.7, 0.0); (575471.9, 4146048.1, 10.8, 10.8, 0.0);
(575511.9, 4146048.1, 10.9, 10.9, 0.0); (575551.9, 4146048.1, 11.5, 11.5, 0.0);
(575591.9, 4146048.1, 8.2, 9.6, 0.0); (575631.9, 4146048.1, 10.1, 10.1, 0.0);
(575671.9, 4146048.1, 11.0, 11.0, 0.0); (575711.9, 4146048.1, 8.5, 11.4, 0.0);
(575751.9, 4146048.1, 11.3, 11.3, 0.0); (575791.9, 4146048.1, 10.1, 10.1, 0.0);
(575831.9, 4146048.1, 10.6, 10.6, 0.0); (575471.9, 4146088.1, 10.6, 10.6, 0.0);
(575511.9, 4146088.1, 10.5, 10.5, 0.0); (575551.9, 4146088.1, 10.5, 10.5, 0.0);
(575591.9, 4146088.1, 10.8, 10.8, 0.0); (575631.9, 4146088.1, 11.1, 11.1, 0.0);
(575671.9, 4146088.1, 10.8, 10.8, 0.0); (575711.9, 4146088.1, 10.6, 10.6, 0.0);
(575471.9, 4146128.1, 10.4, 10.4, 0.0); (575511.9, 4146128.1, 10.1, 10.1, 0.0);
(575551.9, 4146128.1, 10.1, 10.1, 0.0); (575591.9, 4146128.1, 10.0, 10.0, 0.0);
(575631.9, 4146128.1, 10.0, 10.0, 0.0); (575671.9, 4146128.1, 10.1, 10.1, 0.0);
(575711.9, 4146128.1, 10.2, 10.2, 0.0); (575433.9,

4146087.5,   10.7,   10.7,   0.0);
     (575311.9, 4146168.1,   11.1,   11.1,   0.0);   (575351.9,
4146168.1,   10.5,   10.5,   0.0);
     (575391.9, 4146168.1,   10.1,   10.1,   0.0);   (575431.9,
4146168.1,   9.6,   9.6,   0.0);
     (575471.9, 4146168.1,   9.7,   9.7,   0.0);   (575511.9,
4146168.1,   9.4,   9.4,   0.0);
     (575551.9, 4146168.1,   9.6,   9.6,   0.0);   (575591.9,
4146168.1,   9.5,   9.5,   0.0);
     (575631.9, 4146168.1,   9.4,   9.4,   0.0);   (575671.9,
4146168.1,   9.4,   9.4,   0.0);
     (575711.9, 4146168.1,   9.6,   9.6,   0.0);   (575751.9,
4146168.1,   9.3,   11.8,   0.0);
     (575433.9, 4146127.5,   10.5,   10.5,   0.0);   (575311.9,
4146208.1,   10.6,   10.6,   0.0);
     (575351.9, 4146208.1,   10.2,   10.2,   0.0);   (575391.9,
4146208.1,   9.7,   9.7,   0.0);
     (575431.9, 4146208.1,   9.3,   9.3,   0.0);   (575471.9,
4146208.1,   9.2,   9.2,   0.0);
     (575511.9, 4146208.1,   9.2,   9.2,   0.0);   (575551.9,
4146208.1,   9.2,   9.2,   0.0);
     (575591.9, 4146208.1,   9.1,   9.1,   0.0);   (575631.9,
4146208.1,   8.8,   8.8,   0.0);
     (575671.9, 4146208.1,   9.0,   9.0,   0.0);   (575711.9,
4146208.1,   9.0,   9.0,   0.0);
     (575751.9, 4146208.1,   9.1,   11.9,   0.0);   (575311.9,
4146248.1,   10.4,   10.4,   0.0);
     (575351.9, 4146248.1,   10.0,   10.0,   0.0);   (575391.9,
4146248.1,   9.5,   9.5,   0.0);
     (575431.9, 4146248.1,   9.2,   9.2,   0.0);   (575471.9,
4146248.1,   9.1,   9.1,   0.0);
     (575511.9, 4146248.1,   8.9,   8.9,   0.0);   (575551.9,
4146248.1,   8.8,   8.8,   0.0);
     (575591.9, 4146248.1,   8.8,   8.8,   0.0);   (575631.9,
4146248.1,   8.7,   8.7,   0.0);
     (575671.9, 4146248.1,   8.7,   8.7,   0.0);   (575709.7,
4146237.9,   8.5,   8.5,   0.0);
     (575749.7, 4146237.9,   8.6,   11.6,   0.0);   (575871.9,
4146248.1,   12.0,   12.0,   0.0);
     (575911.9, 4146248.1,   11.5,   11.5,   0.0);   (575311.9,
4146288.1,   10.4,   10.4,   0.0);
     (575351.9, 4146288.1,   9.7,   9.7,   0.0);   (575391.9,
4146288.1,   9.4,   9.4,   0.0);
     (575431.9, 4146288.1,   8.9,   8.9,   0.0);   (575471.9,
4146288.1,   8.9,   8.9,   0.0);
     (575511.9, 4146288.1,   8.7,   8.7,   0.0);   (575551.9,
4146288.1,   8.6,   8.6,   0.0);
     (575591.9, 4146288.1,   8.4,   8.4,   0.0);   (575631.9,

4146288.1, 8.3, 8.3, 0.0);
(575671.9, 4146288.1, 8.3, 8.3, 0.0); (575871.9,
4146288.1, 9.6, 9.6, 0.0);
(575911.9, 4146288.1, 8.4, 11.0, 0.0); (575311.9,
4146328.1, 10.2, 10.2, 0.0);
(575351.9, 4146328.1, 9.6, 9.6, 0.0); (575391.9,
4146328.1, 9.1, 9.1, 0.0);
(575431.9, 4146328.1, 8.6, 8.6, 0.0); (575471.9,
4146328.1, 8.5, 8.5, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(575511.9, 4146328.1, 8.3, 8.3, 0.0); (575551.9,
4146328.1, 8.2, 8.2, 0.0);
(575591.9, 4146328.1, 8.1, 8.1, 0.0); (575631.9,
4146328.1, 8.2, 8.2, 0.0);
(575311.9, 4146368.1, 9.9, 9.9, 0.0); (575351.9,
4146368.1, 9.7, 9.7, 0.0);
(575391.9, 4146368.1, 8.9, 8.9, 0.0); (575431.9,
4146368.1, 8.6, 8.6, 0.0);
(575471.9, 4146368.1, 8.3, 8.3, 0.0); (575511.9,
4146368.1, 8.1, 8.1, 0.0);
(575551.9, 4146368.1, 7.8, 7.8, 0.0); (575591.9,
4146368.1, 7.7, 7.7, 0.0);
(575311.9, 4146408.1, 10.2, 10.2, 0.0); (575351.9,
4146408.1, 9.9, 9.9, 0.0);
(575391.9, 4146408.1, 8.8, 8.8, 0.0); (575431.9,
4146408.1, 8.5, 8.5, 0.0);
(575471.9, 4146408.1, 8.1, 8.1, 0.0); (575511.9,
4146408.1, 8.1, 8.1, 0.0);
(575551.9, 4146408.1, 7.8, 7.8, 0.0); (575591.9,
4146408.1, 7.6, 7.6, 0.0);
(575311.9, 4146448.1, 10.8, 10.8, 0.0); (575351.9,
4146448.1, 9.7, 9.7, 0.0);
(575391.9, 4146448.1, 8.8, 8.8, 0.0); (575431.9,
4146448.1, 8.5, 8.5, 0.0);
(575471.9, 4146448.1, 7.7, 7.7, 0.0); (575591.9,
4146448.1, 7.3, 7.3, 0.0);
(575631.9, 4146448.1, 7.3, 7.3, 0.0); (575311.9,

4146488.1, 9.7, 9.7, 0.0);
     (575351.9, 4146488.1, 9.2, 9.2, 0.0); (575391.9,
4146488.1, 8.6, 8.6, 0.0);
     (575431.9, 4146488.1, 8.3, 8.3, 0.0); (575471.9,
4146488.1, 7.9, 7.9, 0.0);
     (575511.9, 4146488.1, 7.4, 7.4, 0.0); (575551.9,
4146488.1, 7.3, 7.3, 0.0);
     (575591.9, 4146488.1, 7.5, 7.5, 0.0); (575631.9,
4146488.1, 7.1, 7.1, 0.0);
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4146528.1, 8.5, 8.5, 0.0);
     (575431.9, 4146528.1, 8.0, 8.0, 0.0); (575471.9,
4146528.1, 7.8, 7.8, 0.0);
     (575511.9, 4146528.1, 7.4, 7.4, 0.0); (575551.9,
4146528.1, 7.3, 7.3, 0.0);
     (575591.9, 4146528.1, 7.2, 7.2, 0.0); (575351.9,
4146568.1, 9.0, 9.0, 0.0);
     (575391.9, 4146568.1, 8.5, 8.5, 0.0); (575431.9,
4146568.1, 7.8, 7.8, 0.0);
     (575471.9, 4146568.1, 7.7, 7.7, 0.0); (575511.9,
4146568.1, 7.3, 7.3, 0.0);
     (575551.9, 4146568.1, 7.0, 7.0, 0.0); (575711.9,
4146568.1, 6.9, 6.9, 0.0);
     (575751.9, 4146568.1, 6.8, 6.8, 0.0); (575391.9,
4146608.1, 8.4, 8.4, 0.0);
     (575421.5, 4146612.5, 8.1, 8.1, 0.0); (575591.9,
4146648.1, 6.7, 6.7, 0.0);
     (575631.9, 4146648.1, 6.5, 6.5, 0.0); (575671.9,
4146648.1, 6.2, 6.2, 0.0);
     (575551.9, 4146688.1, 6.8, 6.8, 0.0); (575591.9,
4146688.1, 6.5, 6.5, 0.0);
     (575631.9, 4146688.1, 6.3, 6.3, 0.0); (575671.9,
4146688.1, 6.3, 6.3, 0.0);
     (575551.9, 4146728.1, 6.6, 6.6, 0.0); (575591.9,
4146728.1, 6.4, 6.4, 0.0);
     (575631.9, 4146728.1, 6.1, 6.1, 0.0); (575671.9,
4146728.1, 6.0, 6.0, 0.0);
↟ *** AERMOD - VERSION 18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***   10/18/20
 *** AERMET - VERSION 14134 ***   ***
                       ***   23:22:25

                                  PAGE   9
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                          *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                          (1=YES; 0=NO)

```
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\724937.SFC
Met Version: 14134
Profile file: ..\724937.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23289 Upper air station no.: 23230

Name: UNKNOWN Name: OAKLAND/WSO_AP

Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	07	-7.2	0.126	-9.000	-9.000	-999.	107.	25.2	0.04	0.36	1.00	2.36	999.	10.0	282.1	2.0
09	01	01	1	08	-7.2	0.125	-9.000	-9.000	-999.	106.	25.0	0.04	0.36	0.73	2.36	999.	10.0	281.1	2.0
09	01	01	1	09	-4.5	0.212	-9.000	-9.000	-999.	235.	195.5	0.01	0.36	0.37	3.86	327.	10.0	282.1	2.0
09	01	01	1	10	4.5	0.252	0.215	0.015	80.	304.	-322.7	0.01	0.36	0.25	4.36	341.	10.0	282.1	2.0
09	01	01	1	11	9.5	0.218	0.333	0.015	140.	245.	-99.2	0.04	0.36	0.20	2.86	999.	10.0	282.1	2.0
09	01	01	1	12	12.3	0.232	0.402	0.015	192.	268.	-91.9	0.00	0.36	0.19	4.36	6.	10.0	282.1	2.0
09	01	01	1	13	12.8	0.203	0.434	0.015	232.	220.	-59.9	0.01	0.36	0.18	3.36	333.	10.0	282.1	2.0
09	01	01	1	14	52.4	0.238	0.799	0.016	354.	278.	-23.3	0.04	0.36	0.19	2.86	999.	10.0	283.1	2.0
09	01	01	1	15	37.3	0.200	0.756	0.017	421.	214.	-19.4	0.04	0.36	0.22	2.36	999.	10.0	285.1	2.0
09	01	01	1	16	14.6	0.222	0.561	0.017	438.	251.	-67.8	0.04	0.36	0.30	2.86	999.	10.0	284.1	2.0
09	01	01	1	17	-11.9	0.162	-9.000	-9.000	-999.	157.	32.4	0.04	0.36	0.54	2.86	999.	10.0	283.1	2.0
09	01	01	1	18	-13.2	0.132	-9.000	-9.000	-999.	115.	15.9	0.01	0.36	1.00	3.36	327.	10.0	281.1	2.0
09	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	0.00	0.	10.0	280.1	2.0
09	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36						

1.00   0.00   0.   10.0 280.1   2.0
 09 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.04   0.36
1.00   0.00   0.   10.0 280.1   2.0
 09 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.04   0.36
1.00 999.00 999.   -9.0 999.0   -9.0
 09 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.04   0.36
1.00 999.00 999.   -9.0 999.0   -9.0
 09 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.04   0.36
1.00 999.00 999.   -9.0 999.0   -9.0

 First hour of profile data
 YR MO DY HR HEIGHT F WDIR   WSPD AMB_TMP sigmaA sigmaW sigmaV
 09 01 01 01   10.0 1 -999. -99.00 -999.0   99.0 -99.00 -99.00

 F indicates top of profile (=1) or below (=0)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   L0000001   , L0000002
 , L0000003   , L0000004   , L0000005   ,
                   L0000006   , L0000007   , L0000008   , L0000009   , L0000010
 , L0000011   , L0000012   , L0000013   ,
                   L0000014   , L0000015   , L0000016   , L0000017   , L0000018
 , L0000019   , L0000020   , L0000021   ,
                   L0000022   , L0000023   , L0000024   , L0000025   , L0000026
 , L0000027   , L0000028   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         575471.86   4146008.07   0.00523   575511.86
4146008.07   0.00711
         575551.86   4146008.07   0.01006   575591.86

```
4146008.07        0.01298
         575631.86    4146008.07        0.01701                    575671.86
4146008.07        0.02195
         575711.86    4146008.07        0.02761                    575751.86
4146008.07        0.03351
         575791.86    4146008.07        0.03763                    575471.86
4146048.07        0.00561
         575511.86    4146048.07        0.00772                    575551.86
4146048.07        0.01081
         575591.86    4146048.07        0.01578                    575631.86
4146048.07        0.02098
         575671.86    4146048.07        0.02748                    575711.86
4146048.07        0.03605
         575751.86    4146048.07        0.04231                    575791.86
4146048.07        0.04813
         575831.86    4146048.07        0.04955                    575471.86
4146088.07        0.00608
         575511.86    4146088.07        0.00844                    575551.86
4146088.07        0.01228
         575591.86    4146088.07        0.01795                    575631.86
4146088.07        0.02565
         575671.86    4146088.07        0.03549                    575711.86
4146088.07        0.04657
         575471.86    4146128.07        0.00664                    575511.86
4146128.07        0.00926
         575551.86    4146128.07        0.01390                    575591.86
4146128.07        0.02154
         575631.86    4146128.07        0.03303                    575671.86
4146128.07        0.04792
         575711.86    4146128.07        0.06425                    575433.85
4146087.51        0.00478
         575311.86    4146168.07        0.00274                    575351.86
4146168.07        0.00344
         575391.86    4146168.07        0.00437                    575431.86
4146168.07        0.00563
         575471.86    4146168.07        0.00733                    575511.86
4146168.07        0.01025
         575551.86    4146168.07        0.01580                    575591.86
4146168.07        0.02607
         575631.86    4146168.07        0.04330                    575671.86
4146168.07        0.06769
         575711.86    4146168.07        0.09368                    575751.86
4146168.07        0.11141
         575433.85    4146127.51        0.00523                    575311.86
4146208.07        0.00267
         575351.86    4146208.07        0.00339                    575391.86
4146208.07        0.00441
         575431.86    4146208.07        0.00585                    575471.86
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4146208.07        0.00794
         575511.86    4146208.07        0.01124                      575551.86
4146208.07        0.01786
         575591.86    4146208.07        0.03198                      575631.86
4146208.07        0.05900
         575671.86    4146208.07        0.10131                      575711.86
4146208.07        0.14659
         575751.86    4146208.07        0.16622                      575311.86
4146248.07        0.00256
         575351.86    4146248.07        0.00326                      575391.86
4146248.07        0.00428
         575431.86    4146248.07        0.00581                      575471.86
4146248.07        0.00819
         575511.86    4146248.07        0.01212                      575551.86
4146248.07        0.01985
         575591.86    4146248.07        0.03943                      575631.86
4146248.07        0.08427
         575671.86    4146248.07        0.16530                      575709.73
4146237.93        0.21403
         575749.73    4146237.93        0.23350                      575871.86
4146248.07        0.06860
         575911.86    4146248.07        0.04421                      575311.86
4146288.07        0.00248
         575351.86    4146288.07        0.00313                      575391.86
4146288.07        0.00408
         575431.86    4146288.07        0.00558                      575471.86
4146288.07        0.00802
         575511.86    4146288.07        0.01240                      575551.86
4146288.07        0.02124
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:22:25

                                   PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                    INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                   L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                   L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
575591.86	4146288.07	0.04706	575631.86	4146288.07	0.13069
575671.86	4146288.07	0.30586	575871.86	4146288.07	0.06079
575911.86	4146288.07	0.03778	575311.86	4146328.07	0.00245
575351.86	4146328.07	0.00306	575391.86	4146328.07	0.00395
575431.86	4146328.07	0.00533	575471.86	4146328.07	0.00761
575511.86	4146328.07	0.01188	575551.86	4146328.07	0.02126
575591.86	4146328.07	0.05032	575631.86	4146328.07	0.24296
575311.86	4146368.07	0.00242	575351.86	4146368.07	0.00301
575391.86	4146368.07	0.00388	575431.86	4146368.07	0.00518
575471.86	4146368.07	0.00731	575511.86	4146368.07	0.01122
575551.86	4146368.07	0.01989	575591.86	4146368.07	0.04760
575311.86	4146408.07	0.00239	575351.86	4146408.07	0.00297
575391.86	4146408.07	0.00386	575431.86	4146408.07	0.00519
575471.86	4146408.07	0.00742	575511.86	4146408.07	0.01163
575551.86	4146408.07	0.02147	575591.86	4146408.07	0.05336
575311.86	4146448.07	0.00240	575351.86	4146448.07	0.00305
575391.86	4146448.07	0.00403	575431.86	4146448.07	0.00555
575471.86	4146448.07	0.00817	575591.86	4146448.07	0.05365
575631.86	4146448.07	0.09427	575311.86	4146488.07	0.00257

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         575351.86    4146488.07        0.00331                        575391.86
4146488.07        0.00446
         575431.86    4146488.07        0.00629                        575471.86
4146488.07        0.00951
         575511.86    4146488.07        0.01575                        575551.86
4146488.07        0.02787
         575591.86    4146488.07        0.04680                        575631.86
4146488.07        0.06279
         575351.86    4146528.07        0.00371                        575391.86
4146528.07        0.00504
         575431.86    4146528.07        0.00721                        575471.86
4146528.07        0.01098
         575511.86    4146528.07        0.01744                        575551.86
4146528.07        0.02705
         575591.86    4146528.07        0.03740                        575351.86
4146568.07        0.00414
         575391.86    4146568.07        0.00567                        575431.86
4146568.07        0.00813
         575471.86    4146568.07        0.01207                        575511.86
4146568.07        0.01765
         575551.86    4146568.07        0.02399                        575711.86
4146568.07        0.01784
         575751.86    4146568.07        0.01297                        575391.86
4146608.07        0.00629
         575421.52    4146612.50        0.00818                        575591.86
4146648.07        0.01675
         575631.86    4146648.07        0.01501                        575671.86
4146648.07        0.01227
         575551.86    4146688.07        0.01352                        575591.86
4146688.07        0.01293
         575631.86    4146688.07        0.01142                        575671.86
4146688.07        0.00946
         575551.86    4146728.07        0.01093                        575591.86
4146728.07        0.01020
         575631.86    4146728.07        0.00897                        575671.86
4146728.07        0.00750
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
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L0000006 , L0000007 , L0000008 , L0000009 , L0000010
, L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018
, L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026
, L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
575471.86	4146008.07	0.66680	(11120318)	575511.86	4146008.07	0.58388	(13011618)
575551.86	4146008.07	0.72833	(13011618)	575591.86	4146008.07	0.82546	(13012507)
575631.86	4146008.07	0.71589	(12123117)	575671.86	4146008.07	0.81947	(11011708)
575711.86	4146008.07	0.80165	(11011708)	575751.86	4146008.07	0.77125	(12110719)
575791.86	4146008.07	0.77154	(13121717)	575471.86	4146048.07	0.74598	(11120318)
575511.86	4146048.07	0.70853	(11120318)	575551.86	4146048.07	0.76959	(13011618)
575591.86	4146048.07	0.90674	(13012507)	575631.86	4146048.07	0.82665	(12123117)
575671.86	4146048.07	0.89768	(11011708)	575711.86	4146048.07	0.90551	(11011708)
575751.86	4146048.07	0.85032	(12110719)	575791.86	4146048.07	0.87124	(13121717)
575831.86	4146048.07	0.82425	(13122917)	575471.86	4146088.07	0.74047	(11120318)
575511.86	4146088.07	0.85521	(11120318)	575551.86	4146088.07	0.78844	(13011618)
575591.86	4146088.07	0.94262	(13012507)	575631.86	4146088.07	0.98156	(13012507)
575671.86	4146088.07	0.99267	(11011708)	575711.86	4146088.07	1.00985	(11011708)
575471.86	4146128.07	0.80067	(12010119)	575511.86	4146128.07	0.91900	(11120318)
575551.86	4146128.07	0.96050	(11120318)	575591.86	4146128.07	1.02953	(13011618)
575631.86	4146128.07	1.15289	(13012507)	575671.86			

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4146128.07        1.11536  (11011708)
       575711.86   4146128.07        1.15541  (11011708)                575433.85
4146087.51        0.70441  (12010119)
       575311.86   4146168.07        0.53082  (13083006)                575351.86
4146168.07        0.62022  (13083006)
       575391.86   4146168.07        0.63736  (13083006)                575431.86
4146168.07        0.72536  (11110821)
       575471.86   4146168.07        0.90698  (11110821)                575511.86
4146168.07        0.91951  (12010119)
       575551.86   4146168.07        1.10893  (11120318)                575591.86
4146168.07        1.10421  (13011618)
       575631.86   4146168.07        1.30816  (13012507)                575671.86
4146168.07        1.27016  (11011708)
       575711.86   4146168.07        1.34196  (11011708)                575751.86
4146168.07        1.29800  (13121717)
       575433.85   4146127.51        0.78977  (11110821)                575311.86
4146208.07        0.40479  (11121207)
       575351.86   4146208.07        0.54763  (13083006)                575391.86
4146208.07        0.70399  (13083006)
       575431.86   4146208.07        0.78313  (13083006)                575471.86
4146208.07        0.85550  (11110821)
       575511.86   4146208.07        1.05395  (11110821)                575551.86
4146208.07        1.16931  (11120318)
       575591.86   4146208.07        1.32744  (11120318)                575631.86
4146208.07        1.44955  (13012507)
       575671.86   4146208.07        1.52747  (12123117)                575711.86
4146208.07        1.58293  (11011708)
       575751.86   4146208.07        1.59063  (13012508)                575311.86
4146248.07        0.37936  (10110920)
       575351.86   4146248.07        0.42870  (10110920)                575391.86
4146248.07        0.53416  (11121207)
       575431.86   4146248.07        0.76921  (13083006)                575471.86
4146248.07        0.94525  (13083006)
       575511.86   4146248.07        1.04139  (11110821)                575551.86
4146248.07        1.24422  (12010119)
       575591.86   4146248.07        1.49005  (11120318)                575631.86
4146248.07        1.64927  (11120318)
       575671.86   4146248.07        1.89167  (12123117)                575709.73
4146237.93        1.81749  (12110719)
       575749.73   4146237.93        1.88389  (13012508)                575871.86
4146248.07        1.29580  (11020607)
       575911.86   4146248.07        1.12005  (13010218)                575311.86
4146288.07        0.55759  (11122708)
       575351.86   4146288.07        0.59001  (11122708)                575391.86
4146288.07        0.61461  (11122708)
       575431.86   4146288.07        0.62942  (11122708)                575471.86
4146288.07        0.78988  (13083006)
       575511.86   4146288.07        1.13398  (13083006)                575551.86
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4146288.07   1.32550 (11110821)
↑ *** AERMOD - VERSION 18081 ***   *** C:\Lakes\AERMOD View\Woodland Park\Woodland Park_Const\Woodland Park ***   10/18/20
*** AERMET - VERSION 14134 ***   ***
***   23:22:25

PAGE 14
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   L0000001   , L0000002
, L0000003   , L0000004   , L0000005   ,
L0000006   , L0000007   , L0000008   , L0000009   , L0000010
, L0000011   , L0000012   , L0000013   ,
L0000014   , L0000015   , L0000016   , L0000017   , L0000018
, L0000019   , L0000020   , L0000021   ,
L0000022   , L0000023   , L0000024   , L0000025   , L0000026
, L0000027   , L0000028   , . . .   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
575591.86	4146288.07	1.68211	(11120318)	575631.86	4146288.07	1.90123	(11120318)
575671.86	4146288.07	2.39873	(12123117)	575871.86	4146288.07	1.26913	(13010218)
575911.86	4146288.07	0.89010	(13010218)	575311.86	4146328.07	0.61755	(11122708)
575351.86	4146328.07	0.70836	(11122708)	575391.86	4146328.07	0.81285	(11122708)
575431.86	4146328.07	0.93207	(11122708)	575471.86	4146328.07	1.06623	(11122708)
575511.86	4146328.07	1.21974	(11122708)	575551.86	4146328.07	1.39184	(11122708)
575591.86	4146328.07	1.76842	(11110821)	575631.86	4146328.07	2.29828	(11120318)
575311.86	4146368.07	0.44912	(11122708)	575351.86	4146368.07	0.53853	(11122708)
575391.86	4146368.07	0.65504	(11122708)	575431.86	4146368.07	0.80644	(11122708)

```
       575471.86   4146368.07        1.00707  (11122708)              575511.86
4146368.07        1.27305  (11122708)
       575551.86   4146368.07        1.61685  (11122708)              575591.86
4146368.07        2.04697  (11122708)
       575311.86   4146408.07        0.49567  (11020218)              575351.86
4146408.07        0.55918  (11020218)
       575391.86   4146408.07        0.63746  (11020218)              575431.86
4146408.07        0.72893  (11020218)
       575471.86   4146408.07        0.84032  (11020218)              575511.86
4146408.07        1.12864  (12112207)
       575551.86   4146408.07        1.52481  (12112207)              575591.86
4146408.07        1.90210  (13022121)
       575311.86   4146448.07        0.43417  (11120319)              575351.86
4146448.07        0.49093  (12091207)
       575391.86   4146448.07        0.65069  (12112207)              575431.86
4146448.07        0.86179  (12112207)
       575471.86   4146448.07        1.06898  (12112207)              575591.86
4146448.07        1.73798  (11112219)
       575631.86   4146448.07        2.02534  (13100507)              575311.86
4146488.07        0.56141  (12112207)
       575351.86   4146488.07        0.68562  (12112207)              575391.86
4146488.07        0.79574  (12112207)
       575431.86   4146488.07        0.86782  (12112207)              575471.86
4146488.07        0.99368  (11120407)
       575511.86   4146488.07        1.14394  (09011407)              575551.86
4146488.07        1.29052  (11112219)
       575591.86   4146488.07        1.51950  (13100507)              575631.86
4146488.07        1.57749  (13100507)
       575351.86   4146528.07        0.63008  (12112207)              575391.86
4146528.07        0.71779  (11120407)
       575431.86   4146528.07        0.82936  (11120407)              575471.86
4146528.07        0.90552  (11112219)
       575511.86   4146528.07        1.00807  (11112219)              575551.86
4146528.07        1.15734  (12021421)
       575591.86   4146528.07        1.24663  (13100507)              575351.86
4146568.07        0.63444  (11120407)
       575391.86   4146568.07        0.69654  (09011407)              575431.86
4146568.07        0.76503  (11112219)
       575471.86   4146568.07        0.80371  (11112219)              575511.86
4146568.07        0.93794  (12122821)
       575551.86   4146568.07        1.02393  (13100507)              575711.86
4146568.07        1.11050  (13040606)
       575751.86   4146568.07        0.87020  (13010121)              575391.86
4146608.07        0.65020  (11112219)
       575421.52   4146612.50        0.64170  (11112219)              575591.86
4146648.07        0.84515  (13092106)
       575631.86   4146648.07        0.88892  (12070406)              575671.86
4146648.07        0.88531  (13040606)
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       575551.86   4146688.07   0.67555 (12111921)   575591.86
 4146688.07   0.77131 (13092106)
       575631.86   4146688.07   0.77001 (12022121)   575671.86
 4146688.07   0.77782 (13040606)
       575551.86   4146728.07   0.64117 (12111921)   575591.86
 4146728.07   0.67478 (13092106)
       575631.86   4146728.07   0.67901 (12022121)   575671.86
 4146728.07   0.68713 (13040606)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   L0000001   , L0000002
 , L0000003   , L0000004   , L0000005   ,
                 L0000006   , L0000007   , L0000008   , L0000009   , L0000010
 , L0000011   , L0000012   , L0000013   ,
                 L0000014   , L0000015   , L0000016   , L0000017   , L0000018
 , L0000019   , L0000020   , L0000021   ,
                 L0000022   , L0000023   , L0000024   , L0000025   , L0000026
 , L0000027   , L0000028   , . . .   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
       575471.86   4146008.07   0.06663m (13120824)   575511.86
 4146008.07   0.07340b (12102624)
       575551.86   4146008.07   0.11812b (12102624)   575591.86
 4146008.07   0.12757b (12102624)
       575631.86   4146008.07   0.09677b (12102624)   575671.86
 4146008.07   0.07730m (13112124)
       575711.86   4146008.07   0.07704b (13110524)   575751.86
 4146008.07   0.08676b (13030924)
       575791.86   4146008.07   0.08835m (13100724)   575471.86
 4146048.07   0.09037m (13120824)
       575511.86   4146048.07   0.07735m (13120824)   575551.86

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4146048.07        0.11483b (12102624)
      575591.86   4146048.07        0.14796b (12102624)              575631.86
4146048.07        0.12703b (12102624)
      575671.86   4146048.07        0.09069m (13112124)              575711.86
4146048.07        0.09430b (13110524)
      575751.86   4146048.07        0.10469b (13030924)              575791.86
4146048.07        0.10773m (13100724)
      575831.86   4146048.07        0.16344m (13110824)              575471.86
4146088.07        0.11666m (13120824)
      575511.86   4146088.07        0.10778m (13120824)              575551.86
4146088.07        0.11037b (12102624)
      575591.86   4146088.07        0.15880b (12102624)              575631.86
4146088.07        0.15876b (12102624)
      575671.86   4146088.07        0.10747m (13112124)              575711.86
4146088.07        0.11424b (13030924)
      575471.86   4146128.07        0.13671m (13120824)              575511.86
4146128.07        0.14378m (13120824)
      575551.86   4146128.07        0.13426m (13120824)              575591.86
4146128.07        0.16893b (12102624)
      575631.86   4146128.07        0.19613b (12102624)              575671.86
4146128.07        0.14734b (12102624)
      575711.86   4146128.07        0.14698b (13030924)              575433.85
4146087.51        0.11242m (13120824)
      575311.86   4146168.07        0.03289b (09012724)              575351.86
4146168.07        0.03936m (11010324)
      575391.86   4146168.07        0.05301m (13120824)              575431.86
4146168.07        0.09560m (13120824)
      575471.86   4146168.07        0.14063m (13120824)              575511.86
4146168.07        0.17301m (13120824)
      575551.86   4146168.07        0.18547m (13120824)              575591.86
4146168.07        0.17637m (13120824)
      575631.86   4146168.07        0.23179b (12102624)              575671.86
4146168.07        0.21055b (12102624)
      575711.86   4146168.07        0.19686b (13030924)              575751.86
4146168.07        0.22875m (13110824)
      575433.85   4146127.51        0.11464m (13120824)              575311.86
4146208.07        0.03189m (10121724)
      575351.86   4146208.07        0.03701b (11121224)              575391.86
4146208.07        0.04586b (09012724)
      575431.86   4146208.07        0.06037m (13120824)              575471.86
4146208.07        0.11835m (13120824)
      575511.86   4146208.07        0.18004m (13120824)              575551.86
4146208.07        0.22618m (13120824)
      575591.86   4146208.07        0.25707m (13120824)              575631.86
4146208.07        0.26653b (12102624)
      575671.86   4146208.07        0.28816b (12102624)              575711.86
4146208.07        0.27453b (13030924)
      575751.86   4146208.07        0.35879m (13110824)              575311.86
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 4146248.07        0.03392m (10121724)
       575351.86   4146248.07        0.04015m (10121724)               575391.86
 4146248.07        0.04591m (10121724)
       575431.86   4146248.07        0.05415b (11121224)               575471.86
 4146248.07        0.07529b (13010124)
       575511.86   4146248.07        0.15335m (13120824)               575551.86
 4146248.07        0.24165m (13120824)
       575591.86   4146248.07        0.32154m (13120824)               575631.86
 4146248.07        0.37357m (13120824)
       575671.86   4146248.07        0.38227b (12102624)               575709.73
 4146237.93        0.36397m (13102424)
       575749.73   4146237.93        0.47018m (13110824)               575871.86
 4146248.07        0.23532m (12120624)
       575911.86   4146248.07        0.18212m (12120624)               575311.86
 4146288.07        0.04625b (11122724)
       575351.86   4146288.07        0.04869b (11122724)               575391.86
 4146288.07        0.05048b (11122724)
       575431.86   4146288.07        0.05925m (10121724)               575471.86
 4146288.07        0.07250b (10120324)
       575511.86   4146288.07        0.09730b (13010124)               575551.86
 4146288.07        0.21490m (13120824)
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:22:25

                                  PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
```

- -
575591.86 4146288.07 0.35652m (13120824) 575631.86
4146288.07 0.48693m (13120824)
575671.86 4146288.07 0.55224m (13120824) 575871.86
4146288.07 0.23353m (12120624)
575911.86 4146288.07 0.16569m (12122624) 575311.86
4146328.07 0.05614b (11122724)
575351.86 4146328.07 0.06372b (11122724) 575391.86
4146328.07 0.07245b (11122724)
575431.86 4146328.07 0.08244b (11122724) 575471.86
4146328.07 0.09368b (11122724)
575511.86 4146328.07 0.10655b (11122724) 575551.86
4146328.07 0.14641m (11122224)
575591.86 4146328.07 0.34555m (13120824) 575631.86
4146328.07 0.58104m (13120824)
575311.86 4146368.07 0.04724b (11122724) 575351.86
4146368.07 0.05551b (11122724)
575391.86 4146368.07 0.06621b (11122724) 575431.86
4146368.07 0.07989b (11122724)
575471.86 4146368.07 0.09783b (11122724) 575511.86
4146368.07 0.12130b (11122724)
575551.86 4146368.07 0.15169b (12122824) 575591.86
4146368.07 0.32833b (12122824)
575311.86 4146408.07 0.02849b (11020224) 575351.86
4146408.07 0.03234b (11020224)
575391.86 4146408.07 0.03753b (11122724) 575431.86
4146408.07 0.04498b (11122724)
575471.86 4146408.07 0.06894m (12112224) 575511.86
4146408.07 0.10978m (12112224)
575551.86 4146408.07 0.17307b (12122824) 575591.86
4146408.07 0.37236b (12122824)
575311.86 4146448.07 0.02847m (12112224) 575351.86
4146448.07 0.04159m (12112224)
575391.86 4146448.07 0.05954m (12112224) 575431.86
4146448.07 0.08224m (12112224)
575471.86 4146448.07 0.10735m (12112224) 575591.86
4146448.07 0.38045m (12121524)
575631.86 4146448.07 0.57557m (10120824) 575311.86
4146488.07 0.05121m (12112224)
575351.86 4146488.07 0.06511m (12112224) 575391.86
4146488.07 0.07927m (12112224)
575431.86 4146488.07 0.09112m (12112224) 575471.86
4146488.07 0.10433m (11112324)
575511.86 4146488.07 0.16103m (11112324) 575551.86
4146488.07 0.23743m (12121524)
575591.86 4146488.07 0.37097m (12121524) 575631.86
4146488.07 0.44022m (10120824)

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       575351.86   4146528.07        0.06667m (12112224)               575391.86
 4146528.07        0.06869m (12112224)
       575431.86   4146528.07        0.09107m (11112324)               575471.86
 4146528.07        0.12658m (11112324)
       575511.86   4146528.07        0.16459m (12121524)               575551.86
 4146528.07        0.25686m (12121524)
       575591.86   4146528.07        0.30076m (12121524)               575351.86
 4146568.07        0.05802m (11112324)
       575391.86   4146568.07        0.07845m (11112324)               575431.86
 4146568.07        0.10074m (11112324)
       575471.86   4146568.07        0.12229m (12121524)               575511.86
 4146568.07        0.18638m (12121524)
       575551.86   4146568.07        0.22722m (12121524)               575711.86
 4146568.07        0.17399m (13120624)
       575751.86   4146568.07        0.11980m (12122224)               575391.86
 4146608.07        0.08162m (11112324)
       575421.52   4146612.50        0.08996m (11112324)               575591.86
 4146648.07        0.15129m (10120824)
       575631.86   4146648.07        0.13961m (10120824)               575671.86
 4146648.07        0.12908m (13120624)
       575551.86   4146688.07        0.13689m (10122024)               575591.86
 4146688.07        0.12387m (10120824)
       575631.86   4146688.07        0.10949m (10120824)               575671.86
 4146688.07        0.10721m (13120624)
       575551.86   4146728.07        0.10794m (10122024)               575591.86
 4146728.07        0.10243m (10120824)
       575631.86   4146728.07        0.08803m (13120624)               575671.86
 4146728.07        0.08973m (13120624)
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:22:25

                                  PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                  *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                   ** CONC OF PM_2.5   IN MICROGRAMS/M**3
              **


                        NETWORK
GROUP ID                      AVERAGE CONC                RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

- - - - - - - - - - - - - - - - - - -

ALL 1ST HIGHEST VALUE IS 0.30586 AT (575671.86, 4146288.07, 8.28, 8.28, 0.00) DC
2ND HIGHEST VALUE IS 0.24296 AT (575631.86, 4146328.07, 8.21, 8.21, 0.00) DC
3RD HIGHEST VALUE IS 0.23350 AT (575749.73, 4146237.93, 8.59, 11.64, 0.00) DC
4TH HIGHEST VALUE IS 0.21403 AT (575709.73, 4146237.93, 8.51, 8.51, 0.00) DC
5TH HIGHEST VALUE IS 0.16622 AT (575751.86, 4146208.07, 9.12, 11.86, 0.00) DC
6TH HIGHEST VALUE IS 0.16530 AT (575671.86, 4146248.07, 8.69, 8.69, 0.00) DC
7TH HIGHEST VALUE IS 0.14659 AT (575711.86, 4146208.07, 8.97, 8.97, 0.00) DC
8TH HIGHEST VALUE IS 0.13069 AT (575631.86, 4146288.07, 8.32, 8.32, 0.00) DC
9TH HIGHEST VALUE IS 0.11141 AT (575751.86, 4146168.07, 9.33, 11.83, 0.00) DC
10TH HIGHEST VALUE IS 0.10131 AT (575671.86, 4146208.07, 8.95, 8.95, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	NETWORK CONC OF TYPE	GRID-ID	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)

- -

ALL HIGH 1ST HIGH VALUE IS 2.39873 ON 12123117: AT (575671.86, 4146288.07, 8.28, 8.28, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH	1ST HIGH VALUE IS	0.58104m	ON 13120824: AT (575631.86, 4146328.07, 8.21, 8.21, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

```
*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            1 Warning Message(s)
A Total of        30785 Informational Message(s)

A Total of        43872 Hours Were Processed

A Total of         1576 Calm Hours Identified

A Total of        29209 Missing Hours Identified ( 66.58 Percent)

CAUTION!:  Number of Missing Hours Exceeds 10 Percent of Total!
           Data May Not Be Acceptable for Regulatory Applications.
           See Section 5.3.2 of "Meteorological Monitoring Guidance
           for Regulatory Modeling Applications" (EPA-454/R-99-005).


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
MX W481   43873         MAIN: Data Remaining After End of Year. Number of Hours=
       48

   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
```

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**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.7.0
** Lakes Environmental Software Inc.
** Date: 10/18/2020
** File: C:\Lakes\AERMOD View\Woodland Park\Woodland Park_Const_v2\Woodland
Park_Const_v2.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Woodland Park\Woodland Park_Const\Woodland Park
   MODELOPT DFAULT CONC
   AVERTIME 1 24 ANNUAL
   URBANOPT 766573 San_Mateo_County
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL "Woodland Park_Const_v2.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Onsite Construction
** PREFIX
** Length of Side = 8.00
** Configuration = Adjacent
** Emission Rate = 0.000322
** Vertical Dimension = 5.78
** SZINIT = 2.69
** Nodes = 20
** 575667.220, 4146318.386, 8.20, 2.89, 3.72
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** 575742.301, 4146316.277, 8.00, 2.89, 3.72
** 575747.784, 4146398.106, 7.66, 2.89, 3.72
** 575687.889, 4146444.926, 7.58, 2.89, 3.72
** 575683.671, 4146412.025, 7.76, 2.89, 3.72
** 575635.803, 4146415.767, 7.58, 2.89, 3.72
** 575622.305, 4146352.681, 8.24, 2.89, 3.72
** 575664.268, 4146348.756, 8.12, 2.89, 3.72
** 575663.002, 4146336.523, 8.10, 2.89, 3.72
** 575727.959, 4146336.523, 7.72, 2.89, 3.72
** 575731.756, 4146392.623, 7.76, 2.89, 3.72
** 575702.230, 4146422.992, 7.75, 2.89, 3.72
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** AERMOD Receptor Pathway
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RE FINISHED
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** AERMOD Meteorology Pathway
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   PROFFILE ..\724937.PFL
   SURFDATA 23289 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 2.1 METERS
ME FINISHED
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** AERMOD Output Pathway
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   RECTABLE 1 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
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   PLOTFILE 24 ALL 1ST "WOODLAND PARK_CONST_V2.AD\24H1GALL.PLT" 32
   PLOTFILE ANNUAL ALL "WOODLAND PARK_CONST_V2.AD\AN00GALL.PLT" 33
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** Project Parameters
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** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
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** AERMOD View Ver. 9.7.0
** Lakes Environmental Software Inc.
** Date: 10/18/2020
** File: C:\Lakes\AERMOD View\Woodland Park\Woodland Park_Const_v2\Woodland
Park_Const_v2.ADI
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** AERMOD Control Pathway
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   AVERTIME 1 24 ANNUAL
   URBANOPT 766573 San_Mateo_County
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL "Woodland Park_Const_v2.err"
CO FINISHED
**
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** AERMOD Source Pathway
**************************************
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SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
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** PREFIX
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** Configuration = Adjacent
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   LOCATION L0000018     VOLUME   575746.639 4146381.022 7.61
   LOCATION L0000019     VOLUME   575747.174 4146389.004 7.74
   LOCATION L0000020     VOLUME   575747.709 4146396.986 7.66
   LOCATION L0000021     VOLUME   575742.365 4146402.342 7.63
   LOCATION L0000022     VOLUME   575736.063 4146407.269 7.62
   LOCATION L0000023     VOLUME   575729.760 4146412.195 7.61
   LOCATION L0000024     VOLUME   575723.457 4146417.122 7.63
   LOCATION L0000025     VOLUME   575717.154 4146422.049 7.61
   LOCATION L0000026     VOLUME   575710.851 4146426.976 7.60
   LOCATION L0000027     VOLUME   575704.548 4146431.903 7.61
   LOCATION L0000028     VOLUME   575698.245 4146436.830 7.63
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LOCATION L0000029     VOLUME   575691.943 4146441.757 7.60
LOCATION L0000030     VOLUME   575687.526 4146442.095 7.60
LOCATION L0000031     VOLUME   575686.508 4146434.160 7.65
LOCATION L0000032     VOLUME   575685.491 4146426.225 7.69
LOCATION L0000033     VOLUME   575684.474 4146418.290 7.74
LOCATION L0000034     VOLUME   575681.991 4146412.157 7.78
LOCATION L0000035     VOLUME   575674.015 4146412.780 7.77
LOCATION L0000036     VOLUME   575666.040 4146413.404 7.72
LOCATION L0000037     VOLUME   575658.064 4146414.027 7.67
LOCATION L0000038     VOLUME   575650.088 4146414.651 7.61
LOCATION L0000039     VOLUME   575642.113 4146415.274 7.58
LOCATION L0000040     VOLUME   575635.453 4146414.134 7.58
LOCATION L0000041     VOLUME   575633.779 4146406.311 7.67
LOCATION L0000042     VOLUME   575632.106 4146398.488 7.75
LOCATION L0000043     VOLUME   575630.432 4146390.665 7.83
LOCATION L0000044     VOLUME   575628.758 4146382.842 7.90
LOCATION L0000045     VOLUME   575627.084 4146375.019 7.99
LOCATION L0000046     VOLUME   575625.411 4146367.196 8.09
LOCATION L0000047     VOLUME   575623.737 4146359.373 8.15
LOCATION L0000048     VOLUME   575623.457 4146352.573 8.21
LOCATION L0000049     VOLUME   575631.422 4146351.828 8.23
LOCATION L0000050     VOLUME   575639.387 4146351.083 8.18
LOCATION L0000051     VOLUME   575647.353 4146350.338 8.13
LOCATION L0000052     VOLUME   575655.318 4146349.593 8.11
LOCATION L0000053     VOLUME   575663.283 4146348.848 8.12
LOCATION L0000054     VOLUME   575663.546 4146341.782 8.13
LOCATION L0000055     VOLUME   575665.716 4146336.523 8.15
LOCATION L0000056     VOLUME   575673.716 4146336.523 8.18
LOCATION L0000057     VOLUME   575681.716 4146336.523 8.19
LOCATION L0000058     VOLUME   575689.716 4146336.523 8.18
LOCATION L0000059     VOLUME   575697.716 4146336.523 8.18
LOCATION L0000060     VOLUME   575705.716 4146336.523 8.07
LOCATION L0000061     VOLUME   575713.716 4146336.523 7.92
LOCATION L0000062     VOLUME   575721.716 4146336.523 7.76
LOCATION L0000063     VOLUME   575728.078 4146338.276 7.66
LOCATION L0000064     VOLUME   575728.618 4146346.258 7.44
LOCATION L0000065     VOLUME   575729.158 4146354.239 7.23
LOCATION L0000066     VOLUME   575729.698 4146362.221 7.30
LOCATION L0000067     VOLUME   575730.238 4146370.203 7.45
LOCATION L0000068     VOLUME   575730.779 4146378.185 7.60
LOCATION L0000069     VOLUME   575731.319 4146386.166 7.75
LOCATION L0000070     VOLUME   575730.690 4146393.719 7.72
LOCATION L0000071     VOLUME   575725.113 4146399.455 7.70
LOCATION L0000072     VOLUME   575719.537 4146405.191 7.70
LOCATION L0000073     VOLUME   575713.960 4146410.927 7.71
LOCATION L0000074     VOLUME   575708.383 4146416.663 7.71
LOCATION L0000075     VOLUME   575702.807 4146422.399 7.70
LOCATION L0000076     VOLUME   575701.399 4146415.868 7.76
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   LOCATION L0000077     VOLUME   575700.472 4146407.922 7.79
   LOCATION L0000078     VOLUME   575699.544 4146399.976 7.82
   LOCATION L0000079     VOLUME   575693.609 4146398.208 7.85
   LOCATION L0000080     VOLUME   575685.643 4146398.945 7.89
   LOCATION L0000081     VOLUME   575677.677 4146399.682 7.91
   LOCATION L0000082     VOLUME   575669.711 4146400.418 7.90
   LOCATION L0000083     VOLUME   575661.745 4146401.155 7.86
   LOCATION L0000084     VOLUME   575653.779 4146401.892 7.82
   LOCATION L0000085     VOLUME   575650.915 4146394.838 7.91
   LOCATION L0000086     VOLUME   575648.408 4146387.241 8.01
   LOCATION L0000087     VOLUME   575645.900 4146379.644 8.04
   LOCATION L0000088     VOLUME   575643.393 4146372.048 8.06
   LOCATION L0000089     VOLUME   575642.561 4146365.567 8.10
   LOCATION L0000090     VOLUME   575650.538 4146364.956 8.10
   LOCATION L0000091     VOLUME   575658.514 4146364.345 8.10
   LOCATION L0000092     VOLUME   575666.491 4146363.734 8.10
   LOCATION L0000093     VOLUME   575674.468 4146363.123 8.10
   LOCATION L0000094     VOLUME   575676.267 4146355.582 8.10
   LOCATION L0000095     VOLUME   575679.677 4146350.124 8.13
   LOCATION L0000096     VOLUME   575687.669 4146350.475 8.13
   LOCATION L0000097     VOLUME   575695.661 4146350.826 8.12
   LOCATION L0000098     VOLUME   575703.654 4146351.177 8.00
   LOCATION L0000099     VOLUME   575711.646 4146351.529 7.74
   LOCATION L0000100     VOLUME   575715.661 4146355.622 7.55
   LOCATION L0000101     VOLUME   575715.527 4146363.621 7.61
   LOCATION L0000102     VOLUME   575715.392 4146371.620 7.68
   LOCATION L0000103     VOLUME   575714.672 4146379.077 7.75
   LOCATION L0000104     VOLUME   575706.708 4146379.837 7.84
   LOCATION L0000105     VOLUME   575698.744 4146380.596 7.92
   LOCATION L0000106     VOLUME   575690.780 4146381.355 7.97
   LOCATION L0000107     VOLUME   575682.817 4146382.114 8.02
   LOCATION L0000108     VOLUME   575674.853 4146382.873 8.08
   LOCATION L0000109     VOLUME   575666.889 4146383.633 8.07
** End of LINE VOLUME Source ID = SLINE1
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
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   SRCPARAM L0000002     0.000002954      2.89      3.72      2.69
   SRCPARAM L0000003     0.000002954      2.89      3.72      2.69
   SRCPARAM L0000004     0.000002954      2.89      3.72      2.69
   SRCPARAM L0000005     0.000002954      2.89      3.72      2.69
   SRCPARAM L0000006     0.000002954      2.89      3.72      2.69
   SRCPARAM L0000007     0.000002954      2.89      3.72      2.69
   SRCPARAM L0000008     0.000002954      2.89      3.72      2.69
   SRCPARAM L0000009     0.000002954      2.89      3.72      2.69
   SRCPARAM L0000010     0.000002954      2.89      3.72      2.69
   SRCPARAM L0000011     0.000002954      2.89      3.72      2.69
   SRCPARAM L0000012     0.000002954      2.89      3.72      2.69
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SRCPARAM	L0000016	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000017	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000018	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000019	0.000002954	2.89	3.72	2.69
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SRCPARAM	L0000022	0.000002954	2.89	3.72	2.69
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SRCPARAM	L0000025	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000026	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000027	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000028	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000029	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000030	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000031	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000032	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000033	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000034	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000035	0.000002954	2.89	3.72	2.69
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SRCPARAM	L0000038	0.000002954	2.89	3.72	2.69
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SRCPARAM	L0000041	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000042	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000043	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000044	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000045	0.000002954	2.89	3.72	2.69
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SRCPARAM	L0000047	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000048	0.000002954	2.89	3.72	2.69
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SRCPARAM	L0000054	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000055	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000056	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000057	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000058	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000059	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000060	0.000002954	2.89	3.72	2.69

SRCPARAM	L0000061	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000062	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000063	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000064	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000065	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000066	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000067	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000068	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000069	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000070	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000071	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000072	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000073	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000074	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000075	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000076	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000077	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000078	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000079	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000080	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000081	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000082	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000083	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000084	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000085	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000086	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000087	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000088	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000089	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000090	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000091	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000092	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000093	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000094	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000095	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000096	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000097	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000098	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000099	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000100	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000101	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000102	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000103	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000104	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000105	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000106	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000107	0.000002954	2.89	3.72	2.69
SRCPARAM	L0000108	0.000002954	2.89	3.72	2.69

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   SRCPARAM L0000109     0.000002954      2.89      3.72      2.69
** ----------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Woodland Park_Const_v2.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\724937.SFC
   PROFFILE ..\724937.PFL
   SURFDATA 23289 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 2.1 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "WOODLAND PARK_CONST_V2.AD\01H1GALL.PLT" 31
   PLOTFILE 24 ALL 1ST "WOODLAND PARK_CONST_V2.AD\24H1GALL.PLT" 32
   PLOTFILE ANNUAL ALL "WOODLAND PARK_CONST_V2.AD\AN00GALL.PLT" 33
   SUMMFILE "Woodland Park_Const_v2.sum"
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************
```

```
↑ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***       10/18/20
 *** AERMET - VERSION  14134 ***   ***
                        ***        23:05:53

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   109 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    766573.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         CCVR_Sub - Meteorological data includes CCVR substitutions
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  2 Short Term Average(s) of:   1-HR  24-HR
     and Calculates ANNUAL Averages

 **This Run Includes:    109 Source(s);       1 Source Group(s); and     154
Receptor(s)

                with:      0 POINT(s), including
```

```
                          Woodland Park_Const_Mit.ADO
                        0 POINTCAP(s) and      0 POINTHOR(s)
                and:    109 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with      0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     2.10 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                 ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   Woodland Park_Const_v2.err

 **File for Summary of Results:   Woodland Park_Const_v2.sum

 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:05:53
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. SCALAR CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE VARY BY
L0000001	0	0.29540E-05	575671.2	4146318.3	8.2	2.89	3.72	2.69	YES
L0000002	0	0.29540E-05	575679.2	4146318.0	8.2	2.89	3.72	2.69	YES
L0000003	0	0.29540E-05	575687.2	4146317.8	8.2	2.89	3.72	2.69	YES
L0000004	0	0.29540E-05	575695.2	4146317.6	8.2	2.89	3.72	2.69	YES
L0000005	0	0.29540E-05	575703.2	4146317.4	8.2	2.89	3.72	2.69	YES
L0000006	0	0.29540E-05	575711.2	4146317.2	8.1	2.89	3.72	2.69	YES
L0000007	0	0.29540E-05	575719.2	4146316.9	8.1	2.89	3.72	2.69	YES
L0000008	0	0.29540E-05	575727.2	4146316.7	8.0	2.89	3.72	2.69	YES
L0000009	0	0.29540E-05	575735.2	4146316.5	8.0	2.89	3.72	2.69	YES
L0000010	0	0.29540E-05	575742.4	4146317.2	8.0	2.89	3.72	2.69	YES
L0000011	0	0.29540E-05	575742.9	4146325.1	8.0	2.89	3.72	2.69	YES
L0000012	0	0.29540E-05	575743.4	4146333.1	7.8	2.89	3.72	2.69	YES
L0000013	0	0.29540E-05	575744.0	4146341.1	7.5	2.89	3.72	2.69	YES
L0000014	0	0.29540E-05	575744.5	4146349.1	7.2	2.89	3.72	2.69	YES
L0000015	0	0.29540E-05	575745.0	4146357.1	7.0	2.89	3.72	2.69	YES
L0000016	0	0.29540E-05	575745.6	4146365.1	7.2	2.89	3.72	2.69	YES

L0000017	0	0.29540E-05	575746.1	4146373.0	7.4	2.89	3.72	2.69 YES
L0000018	0	0.29540E-05	575746.6	4146381.0	7.6	2.89	3.72	2.69 YES
L0000019	0	0.29540E-05	575747.2	4146389.0	7.7	2.89	3.72	2.69 YES
L0000020	0	0.29540E-05	575747.7	4146397.0	7.7	2.89	3.72	2.69 YES
L0000021	0	0.29540E-05	575742.4	4146402.3	7.6	2.89	3.72	2.69 YES
L0000022	0	0.29540E-05	575736.1	4146407.3	7.6	2.89	3.72	2.69 YES
L0000023	0	0.29540E-05	575729.8	4146412.2	7.6	2.89	3.72	2.69 YES
L0000024	0	0.29540E-05	575723.5	4146417.1	7.6	2.89	3.72	2.69 YES
L0000025	0	0.29540E-05	575717.2	4146422.0	7.6	2.89	3.72	2.69 YES
L0000026	0	0.29540E-05	575710.9	4146427.0	7.6	2.89	3.72	2.69 YES
L0000027	0	0.29540E-05	575704.5	4146431.9	7.6	2.89	3.72	2.69 YES
L0000028	0	0.29540E-05	575698.2	4146436.8	7.6	2.89	3.72	2.69 YES
L0000029	0	0.29540E-05	575691.9	4146441.8	7.6	2.89	3.72	2.69 YES
L0000030	0	0.29540E-05	575687.5	4146442.1	7.6	2.89	3.72	2.69 YES
L0000031	0	0.29540E-05	575686.5	4146434.2	7.6	2.89	3.72	2.69 YES
L0000032	0	0.29540E-05	575685.5	4146426.2	7.7	2.89	3.72	2.69 YES
L0000033	0	0.29540E-05	575684.5	4146418.3	7.7	2.89	3.72	2.69 YES
L0000034	0	0.29540E-05	575682.0	4146412.2	7.8	2.89	3.72	2.69 YES
L0000035	0	0.29540E-05	575674.0	4146412.8	7.8	2.89	3.72	2.69 YES
L0000036	0	0.29540E-05	575666.0	4146413.4	7.7	2.89	3.72	2.69 YES
L0000037	0	0.29540E-05	575658.1	4146414.0	7.7	2.89	3.72	2.69 YES
L0000038	0	0.29540E-05	575650.1	4146414.7	7.6	2.89	3.72	2.69 YES
L0000039	0	0.29540E-05	575642.1	4146415.3	7.6	2.89	3.72	2.69 YES
L0000040	0	0.29540E-05	575635.5	4146414.1	7.6	2.89	3.72	2.69 YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE VARY BY
L0000041	0	0.29540E-05	575633.8	4146406.3	7.7	2.89	3.72	2.69	YES	
L0000042	0	0.29540E-05	575632.1	4146398.5	7.8	2.89	3.72	2.69	YES	
L0000043	0	0.29540E-05	575630.4	4146390.7	7.8	2.89	3.72	2.69	YES	
L0000044	0	0.29540E-05	575628.8	4146382.8	7.9	2.89	3.72	2.69	YES	
L0000045	0	0.29540E-05	575627.1	4146375.0	8.0	2.89	3.72	2.69	YES	
L0000046	0	0.29540E-05	575625.4	4146367.2	8.1	2.89	3.72	2.69	YES	
L0000047	0	0.29540E-05	575623.7	4146359.4	8.2	2.89	3.72	2.69	YES	
L0000048	0	0.29540E-05	575623.5	4146352.6	8.2	2.89	3.72	2.69	YES	
L0000049	0	0.29540E-05	575631.4	4146351.8	8.2	2.89	3.72	2.69	YES	
L0000050	0	0.29540E-05	575639.4	4146351.1	8.2	2.89	3.72	2.69	YES	
L0000051	0	0.29540E-05	575647.4	4146350.3	8.1	2.89	3.72	2.69	YES	
L0000052	0	0.29540E-05	575655.3	4146349.6	8.1	2.89	3.72	2.69	YES	
L0000053	0	0.29540E-05	575663.3	4146348.8	8.1	2.89	3.72	2.69	YES	
L0000054	0	0.29540E-05	575663.5	4146341.8	8.1	2.89	3.72	2.69	YES	

L0000055	0	0.29540E-05	575665.7	4146336.5	8.2	2.89	3.72	2.69 YES
L0000056	0	0.29540E-05	575673.7	4146336.5	8.2	2.89	3.72	2.69 YES
L0000057	0	0.29540E-05	575681.7	4146336.5	8.2	2.89	3.72	2.69 YES
L0000058	0	0.29540E-05	575689.7	4146336.5	8.2	2.89	3.72	2.69 YES
L0000059	0	0.29540E-05	575697.7	4146336.5	8.2	2.89	3.72	2.69 YES
L0000060	0	0.29540E-05	575705.7	4146336.5	8.1	2.89	3.72	2.69 YES
L0000061	0	0.29540E-05	575713.7	4146336.5	7.9	2.89	3.72	2.69 YES
L0000062	0	0.29540E-05	575721.7	4146336.5	7.8	2.89	3.72	2.69 YES
L0000063	0	0.29540E-05	575728.1	4146338.3	7.7	2.89	3.72	2.69 YES
L0000064	0	0.29540E-05	575728.6	4146346.3	7.4	2.89	3.72	2.69 YES
L0000065	0	0.29540E-05	575729.2	4146354.2	7.2	2.89	3.72	2.69 YES
L0000066	0	0.29540E-05	575729.7	4146362.2	7.3	2.89	3.72	2.69 YES
L0000067	0	0.29540E-05	575730.2	4146370.2	7.5	2.89	3.72	2.69 YES
L0000068	0	0.29540E-05	575730.8	4146378.2	7.6	2.89	3.72	2.69 YES
L0000069	0	0.29540E-05	575731.3	4146386.2	7.8	2.89	3.72	2.69 YES
L0000070	0	0.29540E-05	575730.7	4146393.7	7.7	2.89	3.72	2.69 YES
L0000071	0	0.29540E-05	575725.1	4146399.5	7.7	2.89	3.72	2.69 YES
L0000072	0	0.29540E-05	575719.5	4146405.2	7.7	2.89	3.72	2.69 YES
L0000073	0	0.29540E-05	575714.0	4146410.9	7.7	2.89	3.72	2.69 YES
L0000074	0	0.29540E-05	575708.4	4146416.7	7.7	2.89	3.72	2.69 YES
L0000075	0	0.29540E-05	575702.8	4146422.4	7.7	2.89	3.72	2.69 YES
L0000076	0	0.29540E-05	575701.4	4146415.9	7.8	2.89	3.72	2.69 YES
L0000077	0	0.29540E-05	575700.5	4146407.9	7.8	2.89	3.72	2.69 YES
L0000078	0	0.29540E-05	575699.5	4146400.0	7.8	2.89	3.72	2.69 YES

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 L0000079         0   0.29540E-05  575693.6 4146398.2     7.8     2.89     3.72
2.69     YES
 L0000080         0   0.29540E-05  575685.6 4146398.9     7.9     2.89     3.72
2.69     YES
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:05:53

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0000081         0   0.29540E-05  575677.7 4146399.7     7.9     2.89     3.72
2.69     YES
 L0000082         0   0.29540E-05  575669.7 4146400.4     7.9     2.89     3.72
2.69     YES
 L0000083         0   0.29540E-05  575661.7 4146401.2     7.9     2.89     3.72
2.69     YES
 L0000084         0   0.29540E-05  575653.8 4146401.9     7.8     2.89     3.72
2.69     YES
 L0000085         0   0.29540E-05  575650.9 4146394.8     7.9     2.89     3.72
2.69     YES
 L0000086         0   0.29540E-05  575648.4 4146387.2     8.0     2.89     3.72
2.69     YES
 L0000087         0   0.29540E-05  575645.9 4146379.6     8.0     2.89     3.72
2.69     YES
 L0000088         0   0.29540E-05  575643.4 4146372.0     8.1     2.89     3.72
2.69     YES
 L0000089         0   0.29540E-05  575642.6 4146365.6     8.1     2.89     3.72
2.69     YES
 L0000090         0   0.29540E-05  575650.5 4146365.0     8.1     2.89     3.72
2.69     YES
 L0000091         0   0.29540E-05  575658.5 4146364.3     8.1     2.89     3.72
2.69     YES
 L0000092         0   0.29540E-05  575666.5 4146363.7     8.1     2.89     3.72
2.69     YES
```

```
 L0000093         0   0.29540E-05  575674.5 4146363.1     8.1     2.89     3.72
2.69     YES
 L0000094         0   0.29540E-05  575676.3 4146355.6     8.1     2.89     3.72
2.69     YES
 L0000095         0   0.29540E-05  575679.7 4146350.1     8.1     2.89     3.72
2.69     YES
 L0000096         0   0.29540E-05  575687.7 4146350.5     8.1     2.89     3.72
2.69     YES
 L0000097         0   0.29540E-05  575695.7 4146350.8     8.1     2.89     3.72
2.69     YES
 L0000098         0   0.29540E-05  575703.7 4146351.2     8.0     2.89     3.72
2.69     YES
 L0000099         0   0.29540E-05  575711.6 4146351.5     7.7     2.89     3.72
2.69     YES
 L0000100         0   0.29540E-05  575715.7 4146355.6     7.5     2.89     3.72
2.69     YES
 L0000101         0   0.29540E-05  575715.5 4146363.6     7.6     2.89     3.72
2.69     YES
 L0000102         0   0.29540E-05  575715.4 4146371.6     7.7     2.89     3.72
2.69     YES
 L0000103         0   0.29540E-05  575714.7 4146379.1     7.8     2.89     3.72
2.69     YES
 L0000104         0   0.29540E-05  575706.7 4146379.8     7.8     2.89     3.72
2.69     YES
 L0000105         0   0.29540E-05  575698.7 4146380.6     7.9     2.89     3.72
2.69     YES
 L0000106         0   0.29540E-05  575690.8 4146381.4     8.0     2.89     3.72
2.69     YES
 L0000107         0   0.29540E-05  575682.8 4146382.1     8.0     2.89     3.72
2.69     YES
 L0000108         0   0.29540E-05  575674.9 4146382.9     8.1     2.89     3.72
2.69     YES
 L0000109         0   0.29540E-05  575666.9 4146383.6     8.1     2.89     3.72
2.69     YES
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:05:53

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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```
  ALL        L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
L0000006    , L0000007    , L0000008    ,

             L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
L0000014    , L0000015    , L0000016    ,

             L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
L0000022    , L0000023    , L0000024    ,

             L0000025    , L0000026    , L0000027    , L0000028    , L0000029    ,
L0000030    , L0000031    , L0000032    ,

             L0000033    , L0000034    , L0000035    , L0000036    , L0000037    ,
L0000038    , L0000039    , L0000040    ,

             L0000041    , L0000042    , L0000043    , L0000044    , L0000045    ,
L0000046    , L0000047    , L0000048    ,

             L0000049    , L0000050    , L0000051    , L0000052    , L0000053    ,
L0000054    , L0000055    , L0000056    ,

             L0000057    , L0000058    , L0000059    , L0000060    , L0000061    ,
L0000062    , L0000063    , L0000064    ,

             L0000065    , L0000066    , L0000067    , L0000068    , L0000069    ,
L0000070    , L0000071    , L0000072    ,

             L0000073    , L0000074    , L0000075    , L0000076    , L0000077    ,
L0000078    , L0000079    , L0000080    ,

             L0000081    , L0000082    , L0000083    , L0000084    , L0000085    ,
L0000086    , L0000087    , L0000088    ,

             L0000089    , L0000090    , L0000091    , L0000092    , L0000093    ,
L0000094    , L0000095    , L0000096    ,

             L0000097    , L0000098    , L0000099    , L0000100    , L0000101    ,
L0000102    , L0000103    , L0000104    ,

             L0000105    , L0000106    , L0000107    , L0000108    , L0000109    ,
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	766573.	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
		L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
		L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
		L0000025 , L0000026 , L0000027 , L0000028 , L0000029 , L0000030 , L0000031 , L0000032 ,
		L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 , L0000040 ,
		L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 ,
		L0000049 , L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 ,
		L0000057 , L0000058 , L0000059 , L0000060 , L0000061 , L0000062 , L0000063 , L0000064 ,
		L0000065 , L0000066 , L0000067 , L0000068 , L0000069 , L0000070 , L0000071 , L0000072 ,
		L0000073 , L0000074 , L0000075 , L0000076 , L0000077 , L0000078 , L0000079 , L0000080 ,
		L0000081 , L0000082 , L0000083 , L0000084 , L0000085 , L0000086 , L0000087 , L0000088 ,
		L0000089 , L0000090 , L0000091 , L0000092 , L0000093 , L0000094 , L0000095 , L0000096 ,
		L0000097 , L0000098 , L0000099 , L0000100 , L0000101 ,

L0000102 , L0000103 , L0000104 ,

L0000105 , L0000106 , L0000107 , L0000108 , L0000109 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(575471.9, 4146008.1, 11.2, 11.2, 0.0); (575511.9, 4146008.1, 11.3, 11.3, 0.0);
(575551.9, 4146008.1, 8.4, 11.7, 0.0); (575591.9, 4146008.1, 11.2, 11.2, 0.0);
(575631.9, 4146008.1, 11.0, 11.0, 0.0); (575671.9, 4146008.1, 10.8, 10.8, 0.0);
(575711.9, 4146008.1, 10.7, 10.7, 0.0); (575751.9, 4146008.1, 9.6, 9.6, 0.0);
(575791.9, 4146008.1, 10.7, 10.7, 0.0); (575471.9, 4146048.1, 10.8, 10.8, 0.0);
(575511.9, 4146048.1, 10.9, 10.9, 0.0); (575551.9, 4146048.1, 11.5, 11.5, 0.0);
(575591.9, 4146048.1, 8.2, 9.6, 0.0); (575631.9, 4146048.1, 10.1, 10.1, 0.0);
(575671.9, 4146048.1, 11.0, 11.0, 0.0); (575711.9, 4146048.1, 8.5, 11.4, 0.0);
(575751.9, 4146048.1, 11.3, 11.3, 0.0); (575791.9, 4146048.1, 10.1, 10.1, 0.0);
(575831.9, 4146048.1, 10.6, 10.6, 0.0); (575471.9, 4146088.1, 10.6, 10.6, 0.0);
(575511.9, 4146088.1, 10.5, 10.5, 0.0); (575551.9, 4146088.1, 10.5, 10.5, 0.0);
(575591.9, 4146088.1, 10.8, 10.8, 0.0); (575631.9, 4146088.1, 11.1, 11.1, 0.0);
(575671.9, 4146088.1, 10.8, 10.8, 0.0); (575711.9, 4146088.1, 10.6, 10.6, 0.0);
(575471.9, 4146128.1, 10.4, 10.4, 0.0); (575511.9, 4146128.1, 10.1, 10.1, 0.0);
(575551.9, 4146128.1, 10.1, 10.1, 0.0); (575591.9, 4146128.1, 10.0, 10.0, 0.0);
(575631.9, 4146128.1, 10.0, 10.0, 0.0); (575671.9, 4146128.1, 10.1, 10.1, 0.0);
(575711.9, 4146128.1, 10.2, 10.2, 0.0); (575433.9,

4146087.5,   10.7,   10.7,   0.0);
     (575311.9, 4146168.1,   11.1,   11.1,   0.0);   (575351.9,
4146168.1,   10.5,   10.5,   0.0);
     (575391.9, 4146168.1,   10.1,   10.1,   0.0);   (575431.9,
4146168.1,   9.6,   9.6,   0.0);
     (575471.9, 4146168.1,   9.7,   9.7,   0.0);   (575511.9,
4146168.1,   9.4,   9.4,   0.0);
     (575551.9, 4146168.1,   9.6,   9.6,   0.0);   (575591.9,
4146168.1,   9.5,   9.5,   0.0);
     (575631.9, 4146168.1,   9.4,   9.4,   0.0);   (575671.9,
4146168.1,   9.4,   9.4,   0.0);
     (575711.9, 4146168.1,   9.6,   9.6,   0.0);   (575751.9,
4146168.1,   9.3,   11.8,   0.0);
     (575433.9, 4146127.5,   10.5,   10.5,   0.0);   (575311.9,
4146208.1,   10.6,   10.6,   0.0);
     (575351.9, 4146208.1,   10.2,   10.2,   0.0);   (575391.9,
4146208.1,   9.7,   9.7,   0.0);
     (575431.9, 4146208.1,   9.3,   9.3,   0.0);   (575471.9,
4146208.1,   9.2,   9.2,   0.0);
     (575511.9, 4146208.1,   9.2,   9.2,   0.0);   (575551.9,
4146208.1,   9.2,   9.2,   0.0);
     (575591.9, 4146208.1,   9.1,   9.1,   0.0);   (575631.9,
4146208.1,   8.8,   8.8,   0.0);
     (575671.9, 4146208.1,   9.0,   9.0,   0.0);   (575711.9,
4146208.1,   9.0,   9.0,   0.0);
     (575751.9, 4146208.1,   9.1,   11.9,   0.0);   (575311.9,
4146248.1,   10.4,   10.4,   0.0);
     (575351.9, 4146248.1,   10.0,   10.0,   0.0);   (575391.9,
4146248.1,   9.5,   9.5,   0.0);
     (575431.9, 4146248.1,   9.2,   9.2,   0.0);   (575471.9,
4146248.1,   9.1,   9.1,   0.0);
     (575511.9, 4146248.1,   8.9,   8.9,   0.0);   (575551.9,
4146248.1,   8.8,   8.8,   0.0);
     (575591.9, 4146248.1,   8.8,   8.8,   0.0);   (575631.9,
4146248.1,   8.7,   8.7,   0.0);
     (575671.9, 4146248.1,   8.7,   8.7,   0.0);   (575709.7,
4146237.9,   8.5,   8.5,   0.0);
     (575749.7, 4146237.9,   8.6,   11.6,   0.0);   (575871.9,
4146248.1,   12.0,   12.0,   0.0);
     (575911.9, 4146248.1,   11.5,   11.5,   0.0);   (575311.9,
4146288.1,   10.4,   10.4,   0.0);
     (575351.9, 4146288.1,   9.7,   9.7,   0.0);   (575391.9,
4146288.1,   9.4,   9.4,   0.0);
     (575431.9, 4146288.1,   8.9,   8.9,   0.0);   (575471.9,
4146288.1,   8.9,   8.9,   0.0);
     (575511.9, 4146288.1,   8.7,   8.7,   0.0);   (575551.9,
4146288.1,   8.6,   8.6,   0.0);
     (575591.9, 4146288.1,   8.4,   8.4,   0.0);   (575631.9,

4146288.1, 8.3, 8.3, 0.0);
(575671.9, 4146288.1, 8.3, 8.3, 0.0); (575871.9,
4146288.1, 9.6, 9.6, 0.0);
(575911.9, 4146288.1, 8.4, 11.0, 0.0); (575311.9,
4146328.1, 10.2, 10.2, 0.0);
(575351.9, 4146328.1, 9.6, 9.6, 0.0); (575391.9,
4146328.1, 9.1, 9.1, 0.0);
(575431.9, 4146328.1, 8.6, 8.6, 0.0); (575471.9,
4146328.1, 8.5, 8.5, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(575511.9, 4146328.1, 8.3, 8.3, 0.0); (575551.9,
4146328.1, 8.2, 8.2, 0.0);
(575591.9, 4146328.1, 8.1, 8.1, 0.0); (575631.9,
4146328.1, 8.2, 8.2, 0.0);
(575311.9, 4146368.1, 9.9, 9.9, 0.0); (575351.9,
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(575391.9, 4146368.1, 8.9, 8.9, 0.0); (575431.9,
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(575471.9, 4146368.1, 8.3, 8.3, 0.0); (575511.9,
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4146368.1, 7.7, 7.7, 0.0);
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(575391.9, 4146408.1, 8.8, 8.8, 0.0); (575431.9,
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(575471.9, 4146408.1, 8.1, 8.1, 0.0); (575511.9,
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(575551.9, 4146408.1, 7.8, 7.8, 0.0); (575591.9,
4146408.1, 7.6, 7.6, 0.0);
(575311.9, 4146448.1, 10.8, 10.8, 0.0); (575351.9,
4146448.1, 9.7, 9.7, 0.0);
(575391.9, 4146448.1, 8.8, 8.8, 0.0); (575431.9,
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(575471.9, 4146448.1, 7.7, 7.7, 0.0); (575591.9,
4146448.1, 7.3, 7.3, 0.0);
(575631.9, 4146448.1, 7.3, 7.3, 0.0); (575311.9,

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4146488.1,       9.7,       9.7,       0.0);
     ( 575351.9, 4146488.1,       9.2,       9.2,       0.0);         ( 575391.9,
4146488.1,       8.6,       8.6,       0.0);
     ( 575431.9, 4146488.1,       8.3,       8.3,       0.0);         ( 575471.9,
4146488.1,       7.9,       7.9,       0.0);
     ( 575511.9, 4146488.1,       7.4,       7.4,       0.0);         ( 575551.9,
4146488.1,       7.3,       7.3,       0.0);
     ( 575591.9, 4146488.1,       7.5,       7.5,       0.0);         ( 575631.9,
4146488.1,       7.1,       7.1,       0.0);
     ( 575351.9, 4146528.1,       9.1,       9.1,       0.0);         ( 575391.9,
4146528.1,       8.5,       8.5,       0.0);
     ( 575431.9, 4146528.1,       8.0,       8.0,       0.0);         ( 575471.9,
4146528.1,       7.8,       7.8,       0.0);
     ( 575511.9, 4146528.1,       7.4,       7.4,       0.0);         ( 575551.9,
4146528.1,       7.3,       7.3,       0.0);
     ( 575591.9, 4146528.1,       7.2,       7.2,       0.0);         ( 575351.9,
4146568.1,       9.0,       9.0,       0.0);
     ( 575391.9, 4146568.1,       8.5,       8.5,       0.0);         ( 575431.9,
4146568.1,       7.8,       7.8,       0.0);
     ( 575471.9, 4146568.1,       7.7,       7.7,       0.0);         ( 575511.9,
4146568.1,       7.3,       7.3,       0.0);
     ( 575551.9, 4146568.1,       7.0,       7.0,       0.0);         ( 575711.9,
4146568.1,       6.9,       6.9,       0.0);
     ( 575751.9, 4146568.1,       6.8,       6.8,       0.0);         ( 575391.9,
4146608.1,       8.4,       8.4,       0.0);
     ( 575421.5, 4146612.5,       8.1,       8.1,       0.0);         ( 575591.9,
4146648.1,       6.7,       6.7,       0.0);
     ( 575631.9, 4146648.1,       6.5,       6.5,       0.0);         ( 575671.9,
4146648.1,       6.2,       6.2,       0.0);
     ( 575551.9, 4146688.1,       6.8,       6.8,       0.0);         ( 575591.9,
4146688.1,       6.5,       6.5,       0.0);
     ( 575631.9, 4146688.1,       6.3,       6.3,       0.0);         ( 575671.9,
4146688.1,       6.3,       6.3,       0.0);
     ( 575551.9, 4146728.1,       6.6,       6.6,       0.0);         ( 575591.9,
4146728.1,       6.4,       6.4,       0.0);
     ( 575631.9, 4146728.1,       6.1,       6.1,       0.0);         ( 575671.9,
4146728.1,       6.0,       6.0,       0.0);
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:05:53

                                  PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                              *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                                  (1=YES; 0=NO)
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            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\724937.SFC
Met Version: 14134
Profile file: ..\724937.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23289 Upper air station no.: 23230

Name: UNKNOWN Name: OAKLAND/WSO_AP

Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	07	-7.2	0.126	-9.000	-9.000	-999.	107.	25.2	0.04	0.36	1.00	2.36	999.	10.0	282.1	2.0
09	01	01	1	08	-7.2	0.125	-9.000	-9.000	-999.	106.	25.0	0.04	0.36	0.73	2.36	999.	10.0	281.1	2.0
09	01	01	1	09	-4.5	0.212	-9.000	-9.000	-999.	235.	195.5	0.01	0.36	0.37	3.86	327.	10.0	282.1	2.0
09	01	01	1	10	4.5	0.252	0.215	0.015	80.	304.	-322.7	0.01	0.36	0.25	4.36	341.	10.0	282.1	2.0
09	01	01	1	11	9.5	0.218	0.333	0.015	140.	245.	-99.2	0.04	0.36	0.20	2.86	999.	10.0	282.1	2.0
09	01	01	1	12	12.3	0.232	0.402	0.015	192.	268.	-91.9	0.00	0.36	0.19	4.36	6.	10.0	282.1	2.0
09	01	01	1	13	12.8	0.203	0.434	0.015	232.	220.	-59.9	0.01	0.36	0.18	3.36	333.	10.0	282.1	2.0
09	01	01	1	14	52.4	0.238	0.799	0.016	354.	278.	-23.3	0.04	0.36	0.19	2.86	999.	10.0	283.1	2.0
09	01	01	1	15	37.3	0.200	0.756	0.017	421.	214.	-19.4	0.04	0.36	0.22	2.36	999.	10.0	285.1	2.0
09	01	01	1	16	14.6	0.222	0.561	0.017	438.	251.	-67.8	0.04	0.36	0.30	2.86	999.	10.0	284.1	2.0
09	01	01	1	17	-11.9	0.162	-9.000	-9.000	-999.	157.	32.4	0.04	0.36	0.54	2.86	999.	10.0	283.1	2.0
09	01	01	1	18	-13.2	0.132	-9.000	-9.000	-999.	115.	15.9	0.01	0.36	1.00	3.36	327.	10.0	281.1	2.0
09	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36	1.00	0.00	0.	10.0	280.1	2.0
09	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.04	0.36						

```
1.00    0.00    0.   10.0  280.1    2.0
 09 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00    0.00    0.   10.0  280.1    2.0
 09 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00  999.00  999.   -9.0  999.0   -9.0
 09 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00  999.00  999.   -9.0  999.0   -9.0
 09 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00  999.00  999.   -9.0  999.0   -9.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01   10.0 1 -999.  -99.00  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:05:53

                                  PAGE  11
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                   L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                   L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -
         575471.86    4146008.07        0.00051                       575511.86
4146008.07        0.00070
         575551.86    4146008.07        0.00099                       575591.86
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4146008.07        0.00128
         575631.86    4146008.07        0.00167                    575671.86
4146008.07        0.00216
         575711.86    4146008.07        0.00272                    575751.86
4146008.07        0.00330
         575791.86    4146008.07        0.00371                    575471.86
4146048.07        0.00055
         575511.86    4146048.07        0.00076                    575551.86
4146048.07        0.00106
         575591.86    4146048.07        0.00155                    575631.86
4146048.07        0.00207
         575671.86    4146048.07        0.00271                    575711.86
4146048.07        0.00355
         575751.86    4146048.07        0.00417                    575791.86
4146048.07        0.00474
         575831.86    4146048.07        0.00488                    575471.86
4146088.07        0.00060
         575511.86    4146088.07        0.00083                    575551.86
4146088.07        0.00121
         575591.86    4146088.07        0.00177                    575631.86
4146088.07        0.00253
         575671.86    4146088.07        0.00349                    575711.86
4146088.07        0.00459
         575471.86    4146128.07        0.00065                    575511.86
4146128.07        0.00091
         575551.86    4146128.07        0.00137                    575591.86
4146128.07        0.00212
         575631.86    4146128.07        0.00325                    575671.86
4146128.07        0.00472
         575711.86    4146128.07        0.00633                    575433.85
4146087.51        0.00047
         575311.86    4146168.07        0.00027                    575351.86
4146168.07        0.00034
         575391.86    4146168.07        0.00043                    575431.86
4146168.07        0.00055
         575471.86    4146168.07        0.00072                    575511.86
4146168.07        0.00101
         575551.86    4146168.07        0.00156                    575591.86
4146168.07        0.00257
         575631.86    4146168.07        0.00426                    575671.86
4146168.07        0.00667
         575711.86    4146168.07        0.00922                    575751.86
4146168.07        0.01097
         575433.85    4146127.51        0.00052                    575311.86
4146208.07        0.00026
         575351.86    4146208.07        0.00033                    575391.86
4146208.07        0.00043
         575431.86    4146208.07        0.00058                    575471.86
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4146208.07        0.00078
         575511.86    4146208.07        0.00111                       575551.86
4146208.07        0.00176
         575591.86    4146208.07        0.00315                       575631.86
4146208.07        0.00581
         575671.86    4146208.07        0.00998                       575711.86
4146208.07        0.01443
         575751.86    4146208.07        0.01637                       575311.86
4146248.07        0.00025
         575351.86    4146248.07        0.00032                       575391.86
4146248.07        0.00042
         575431.86    4146248.07        0.00057                       575471.86
4146248.07        0.00081
         575511.86    4146248.07        0.00119                       575551.86
4146248.07        0.00195
         575591.86    4146248.07        0.00388                       575631.86
4146248.07        0.00830
         575671.86    4146248.07        0.01628                       575709.73
4146237.93        0.02107
         575749.73    4146237.93        0.02299                       575871.86
4146248.07        0.00675
         575911.86    4146248.07        0.00435                       575311.86
4146288.07        0.00024
         575351.86    4146288.07        0.00031                       575391.86
4146288.07        0.00040
         575431.86    4146288.07        0.00055                       575471.86
4146288.07        0.00079
         575511.86    4146288.07        0.00122                       575551.86
4146288.07        0.00209
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:05:53

                                  PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                   L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                   L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
575591.86	4146288.07	0.00463	575631.86	4146288.07	0.01287
575671.86	4146288.07	0.03012	575871.86	4146288.07	0.00599
575911.86	4146288.07	0.00372	575311.86	4146328.07	0.00024
575351.86	4146328.07	0.00030	575391.86	4146328.07	0.00039
575431.86	4146328.07	0.00052	575471.86	4146328.07	0.00075
575511.86	4146328.07	0.00117	575551.86	4146328.07	0.00209
575591.86	4146328.07	0.00495	575631.86	4146328.07	0.02392
575311.86	4146368.07	0.00024	575351.86	4146368.07	0.00030
575391.86	4146368.07	0.00038	575431.86	4146368.07	0.00051
575471.86	4146368.07	0.00072	575511.86	4146368.07	0.00110
575551.86	4146368.07	0.00196	575591.86	4146368.07	0.00469
575311.86	4146408.07	0.00023	575351.86	4146408.07	0.00029
575391.86	4146408.07	0.00038	575431.86	4146408.07	0.00051
575471.86	4146408.07	0.00073	575511.86	4146408.07	0.00115
575551.86	4146408.07	0.00211	575591.86	4146408.07	0.00525
575311.86	4146448.07	0.00024	575351.86	4146448.07	0.00030
575391.86	4146448.07	0.00040	575431.86	4146448.07	0.00055
575471.86	4146448.07	0.00080	575591.86	4146448.07	0.00528
575631.86	4146448.07	0.00928	575311.86	4146488.07	0.00025

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         575351.86    4146488.07        0.00033                        575391.86
4146488.07        0.00044
         575431.86    4146488.07        0.00062                        575471.86
4146488.07        0.00094
         575511.86    4146488.07        0.00155                        575551.86
4146488.07        0.00274
         575591.86    4146488.07        0.00461                        575631.86
4146488.07        0.00618
         575351.86    4146528.07        0.00036                        575391.86
4146528.07        0.00050
         575431.86    4146528.07        0.00071                        575471.86
4146528.07        0.00108
         575511.86    4146528.07        0.00172                        575551.86
4146528.07        0.00266
         575591.86    4146528.07        0.00368                        575351.86
4146568.07        0.00041
         575391.86    4146568.07        0.00056                        575431.86
4146568.07        0.00080
         575471.86    4146568.07        0.00119                        575511.86
4146568.07        0.00174
         575551.86    4146568.07        0.00236                        575711.86
4146568.07        0.00176
         575751.86    4146568.07        0.00128                        575391.86
4146608.07        0.00062
         575421.52    4146612.50        0.00081                        575591.86
4146648.07        0.00165
         575631.86    4146648.07        0.00148                        575671.86
4146648.07        0.00121
         575551.86    4146688.07        0.00133                        575591.86
4146688.07        0.00127
         575631.86    4146688.07        0.00112                        575671.86
4146688.07        0.00093
         575551.86    4146728.07        0.00108                        575591.86
4146728.07        0.00100
         575631.86    4146728.07        0.00088                        575671.86
4146728.07        0.00074
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:05:53

                                  PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
```

L0000006 , L0000007 , L0000008 , L0000009 , L0000010
, L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018
, L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026
, L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
575471.86	4146008.07	0.06566	(11120318)	575511.86	4146008.07	0.05749	(13011618)
575551.86	4146008.07	0.07172	(13011618)	575591.86	4146008.07	0.08128	(13012507)
575631.86	4146008.07	0.07049	(12123117)	575671.86	4146008.07	0.08069	(11011708)
575711.86	4146008.07	0.07894	(11011708)	575751.86	4146008.07	0.07594	(12110719)
575791.86	4146008.07	0.07597	(13121717)	575471.86	4146048.07	0.07345	(11120318)
575511.86	4146048.07	0.06977	(11120318)	575551.86	4146048.07	0.07578	(13011618)
575591.86	4146048.07	0.08928	(13012507)	575631.86	4146048.07	0.08140	(12123117)
575671.86	4146048.07	0.08839	(11011708)	575711.86	4146048.07	0.08916	(11011708)
575751.86	4146048.07	0.08373	(12110719)	575791.86	4146048.07	0.08579	(13121717)
575831.86	4146048.07	0.08116	(13122917)	575471.86	4146088.07	0.07291	(11120318)
575511.86	4146088.07	0.08421	(11120318)	575551.86	4146088.07	0.07764	(13011618)
575591.86	4146088.07	0.09282	(13012507)	575631.86	4146088.07	0.09665	(13012507)
575671.86	4146088.07	0.09775	(11011708)	575711.86	4146088.07	0.09944	(11011708)
575471.86	4146128.07	0.07884	(12010119)	575511.86	4146128.07	0.09049	(11120318)
575551.86	4146128.07	0.09458	(11120318)	575591.86	4146128.07	0.10137	(13011618)
575631.86	4146128.07	0.11352	(13012507)	575671.86			

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4146128.07        0.10983  (11011708)
       575711.86   4146128.07        0.11377  (11011708)                575433.85
4146087.51        0.06936  (12010119)
       575311.86   4146168.07        0.05227  (13083006)                575351.86
4146168.07        0.06107  (13083006)
       575391.86   4146168.07        0.06276  (13083006)                575431.86
4146168.07        0.07142  (11110821)
       575471.86   4146168.07        0.08931  (11110821)                575511.86
4146168.07        0.09054  (12010119)
       575551.86   4146168.07        0.10919  (11120318)                575591.86
4146168.07        0.10873  (13011618)
       575631.86   4146168.07        0.12881  (13012507)                575671.86
4146168.07        0.12507  (11011708)
       575711.86   4146168.07        0.13214  (11011708)                575751.86
4146168.07        0.12781  (13121717)
       575433.85   4146127.51        0.07777  (11110821)                575311.86
4146208.07        0.03986  (11121207)
       575351.86   4146208.07        0.05392  (13083006)                575391.86
4146208.07        0.06932  (13083006)
       575431.86   4146208.07        0.07711  (13083006)                575471.86
4146208.07        0.08424  (11110821)
       575511.86   4146208.07        0.10378  (11110821)                575551.86
4146208.07        0.11514  (11120318)
       575591.86   4146208.07        0.13071  (11120318)                575631.86
4146208.07        0.14273  (13012507)
       575671.86   4146208.07        0.15040  (12123117)                575711.86
4146208.07        0.15587  (11011708)
       575751.86   4146208.07        0.15662  (13012508)                575311.86
4146248.07        0.03735  (10110920)
       575351.86   4146248.07        0.04221  (10110920)                575391.86
4146248.07        0.05260  (11121207)
       575431.86   4146248.07        0.07574  (13083006)                575471.86
4146248.07        0.09308  (13083006)
       575511.86   4146248.07        0.10254  (11110821)                575551.86
4146248.07        0.12251  (12010119)
       575591.86   4146248.07        0.14672  (11120318)                575631.86
4146248.07        0.16240  (11120318)
       575671.86   4146248.07        0.18627  (12123117)                575709.73
4146237.93        0.17896  (12110719)
       575749.73   4146237.93        0.18550  (13012508)                575871.86
4146248.07        0.12759  (11020607)
       575911.86   4146248.07        0.11029  (13010218)                575311.86
4146288.07        0.05490  (11122708)
       575351.86   4146288.07        0.05810  (11122708)                575391.86
4146288.07        0.06052  (11122708)
       575431.86   4146288.07        0.06198  (11122708)                575471.86
4146288.07        0.07778  (13083006)
       575511.86   4146288.07        0.11166  (13083006)                575551.86
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4146288.07 0.13052 (11110821)
↑ *** AERMOD - VERSION 18081 *** *** C:\Lakes\AERMOD View\Woodland Park\Woodland Park_Const\Woodland Park *** 10/18/20
*** AERMET - VERSION 14134 *** ***
*** 23:05:53

PAGE 14
*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
575591.86	4146288.07	0.16563	(11120318)	575631.86	4146288.07	0.18721	(11120318)
575671.86	4146288.07	0.23619	(12123117)	575871.86	4146288.07	0.12497	(13010218)
575911.86	4146288.07	0.08765	(13010218)	575311.86	4146328.07	0.06081	(11122708)
575351.86	4146328.07	0.06975	(11122708)	575391.86	4146328.07	0.08004	(11122708)
575431.86	4146328.07	0.09178	(11122708)	575471.86	4146328.07	0.10499	(11122708)
575511.86	4146328.07	0.12010	(11122708)	575551.86	4146328.07	0.13705	(11122708)
575591.86	4146328.07	0.17413	(11110821)	575631.86	4146328.07	0.22630	(11120318)
575311.86	4146368.07	0.04422	(11122708)	575351.86	4146368.07	0.05303	(11122708)
575391.86	4146368.07	0.06450	(11122708)	575431.86	4146368.07	0.07941	(11122708)

575471.86 4146368.07 0.09916 (11122708) 575511.86
4146368.07 0.12535 (11122708)
575551.86 4146368.07 0.15921 (11122708) 575591.86
4146368.07 0.20156 (11122708)
575311.86 4146408.07 0.04881 (11020218) 575351.86
4146408.07 0.05506 (11020218)
575391.86 4146408.07 0.06277 (11020218) 575431.86
4146408.07 0.07178 (11020218)
575471.86 4146408.07 0.08274 (11020218) 575511.86
4146408.07 0.11113 (12112207)
575551.86 4146408.07 0.15014 (12112207) 575591.86
4146408.07 0.18729 (13022121)
575311.86 4146448.07 0.04275 (11120319) 575351.86
4146448.07 0.04834 (12091207)
575391.86 4146448.07 0.06407 (12112207) 575431.86
4146448.07 0.08486 (12112207)
575471.86 4146448.07 0.10526 (12112207) 575591.86
4146448.07 0.17113 (11112219)
575631.86 4146448.07 0.19943 (13100507) 575311.86
4146488.07 0.05528 (12112207)
575351.86 4146488.07 0.06751 (12112207) 575391.86
4146488.07 0.07835 (12112207)
575431.86 4146488.07 0.08545 (12112207) 575471.86
4146488.07 0.09784 (11120407)
575511.86 4146488.07 0.11264 (09011407) 575551.86
4146488.07 0.12707 (11112219)
575591.86 4146488.07 0.14962 (13100507) 575631.86
4146488.07 0.15533 (13100507)
575351.86 4146528.07 0.06204 (12112207) 575391.86
4146528.07 0.07068 (11120407)
575431.86 4146528.07 0.08166 (11120407) 575471.86
4146528.07 0.08916 (11112219)
575511.86 4146528.07 0.09926 (11112219) 575551.86
4146528.07 0.11396 (12021421)
575591.86 4146528.07 0.12275 (13100507) 575351.86
4146568.07 0.06247 (11120407)
575391.86 4146568.07 0.06859 (09011407) 575431.86
4146568.07 0.07533 (11112219)
575471.86 4146568.07 0.07914 (11112219) 575511.86
4146568.07 0.09236 (12122821)
575551.86 4146568.07 0.10082 (13100507) 575711.86
4146568.07 0.10935 (13040606)
575751.86 4146568.07 0.08569 (13010121) 575391.86
4146608.07 0.06402 (11112219)
575421.52 4146612.50 0.06319 (11112219) 575591.86
4146648.07 0.08322 (13092106)
575631.86 4146648.07 0.08753 (12070406) 575671.86
4146648.07 0.08717 (13040606)

575551.86 4146688.07 0.06652 (12111921) 575591.86
4146688.07 0.07595 (13092106)
575631.86 4146688.07 0.07582 (12022121) 575671.86
4146688.07 0.07659 (13040606)
575551.86 4146728.07 0.06313 (12111921) 575591.86
4146728.07 0.06644 (13092106)
575631.86 4146728.07 0.06686 (12022121) 575671.86
4146728.07 0.06766 (13040606)
*** AERMOD - VERSION 18081 *** *** C:\Lakes\AERMOD View\Woodland Park\Woodland Park_Const\Woodland Park *** 10/18/20
*** AERMET - VERSION 14134 *** ***
*** 23:05:53

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
575471.86	4146008.07	0.00656m	(13120824)	575511.86	4146008.07	0.00723b	(12102624)
575551.86	4146008.07	0.01163b	(12102624)	575591.86	4146008.07	0.01256b	(12102624)
575631.86	4146008.07	0.00953b	(12102624)	575671.86	4146008.07	0.00761m	(13112124)
575711.86	4146008.07	0.00759b	(13110524)	575751.86	4146008.07	0.00854b	(13030924)
575791.86	4146008.07	0.00870m	(13100724)	575471.86	4146048.07	0.00890m	(13120824)
575511.86	4146048.07	0.00762m	(13120824)	575551.86			

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4146048.07        0.01131b (12102624)
      575591.86   4146048.07        0.01457b (12102624)              575631.86
4146048.07        0.01251b (12102624)
      575671.86   4146048.07        0.00893m (13112124)              575711.86
4146048.07        0.00929b (13110524)
      575751.86   4146048.07        0.01031b (13030924)              575791.86
4146048.07        0.01061m (13100724)
      575831.86   4146048.07        0.01609m (13110824)              575471.86
4146088.07        0.01149m (13120824)
      575511.86   4146088.07        0.01061m (13120824)              575551.86
4146088.07        0.01087b (12102624)
      575591.86   4146088.07        0.01564b (12102624)              575631.86
4146088.07        0.01563b (12102624)
      575671.86   4146088.07        0.01058m (13112124)              575711.86
4146088.07        0.01125b (13030924)
      575471.86   4146128.07        0.01346m (13120824)              575511.86
4146128.07        0.01416m (13120824)
      575551.86   4146128.07        0.01322m (13120824)              575591.86
4146128.07        0.01663b (12102624)
      575631.86   4146128.07        0.01931b (12102624)              575671.86
4146128.07        0.01451b (12102624)
      575711.86   4146128.07        0.01447b (13030924)              575433.85
4146087.51        0.01107m (13120824)
      575311.86   4146168.07        0.00324b (09012724)              575351.86
4146168.07        0.00388m (11010324)
      575391.86   4146168.07        0.00522m (13120824)              575431.86
4146168.07        0.00941m (13120824)
      575471.86   4146168.07        0.01385m (13120824)              575511.86
4146168.07        0.01704m (13120824)
      575551.86   4146168.07        0.01826m (13120824)              575591.86
4146168.07        0.01737m (13120824)
      575631.86   4146168.07        0.02282b (12102624)              575671.86
4146168.07        0.02073b (12102624)
      575711.86   4146168.07        0.01938b (13030924)              575751.86
4146168.07        0.02252m (13110824)
      575433.85   4146127.51        0.01129m (13120824)              575311.86
4146208.07        0.00314m (10121724)
      575351.86   4146208.07        0.00364b (11121224)              575391.86
4146208.07        0.00452b (09012724)
      575431.86   4146208.07        0.00594m (13120824)              575471.86
4146208.07        0.01165m (13120824)
      575511.86   4146208.07        0.01773m (13120824)              575551.86
4146208.07        0.02227m (13120824)
      575591.86   4146208.07        0.02531m (13120824)              575631.86
4146208.07        0.02624b (12102624)
      575671.86   4146208.07        0.02837b (12102624)              575711.86
4146208.07        0.02703b (13030924)
      575751.86   4146208.07        0.03533m (13110824)              575311.86
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 4146248.07        0.00334m (10121724)
       575351.86   4146248.07        0.00395m (10121724)               575391.86
 4146248.07        0.00452m (10121724)
       575431.86   4146248.07        0.00533b (11121224)               575471.86
 4146248.07        0.00741b (13010124)
       575511.86   4146248.07        0.01510m (13120824)               575551.86
 4146248.07        0.02379m (13120824)
       575591.86   4146248.07        0.03166m (13120824)               575631.86
 4146248.07        0.03678m (13120824)
       575671.86   4146248.07        0.03764b (12102624)               575709.73
 4146237.93        0.03584m (13102424)
       575749.73   4146237.93        0.04630m (13110824)               575871.86
 4146248.07        0.02317m (12120624)
       575911.86   4146248.07        0.01793m (12120624)               575311.86
 4146288.07        0.00455b (11122724)
       575351.86   4146288.07        0.00479b (11122724)               575391.86
 4146288.07        0.00497b (11122724)
       575431.86   4146288.07        0.00583m (10121724)               575471.86
 4146288.07        0.00714b (10120324)
       575511.86   4146288.07        0.00958b (13010124)               575551.86
 4146288.07        0.02116m (13120824)
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
```

575591.86 4146288.07 0.03511m (13120824) 575631.86 4146288.07 0.04795m (13120824)
575671.86 4146288.07 0.05438m (13120824) 575871.86 4146288.07 0.02300m (12120624)
575911.86 4146288.07 0.01631m (12122624) 575311.86 4146328.07 0.00553b (11122724)
575351.86 4146328.07 0.00627b (11122724) 575391.86 4146328.07 0.00713b (11122724)
575431.86 4146328.07 0.00812b (11122724) 575471.86 4146328.07 0.00922b (11122724)
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575591.86 4146328.07 0.03402m (13120824) 575631.86 4146328.07 0.05721m (13120824)
575311.86 4146368.07 0.00465b (11122724) 575351.86 4146368.07 0.00547b (11122724)
575391.86 4146368.07 0.00652b (11122724) 575431.86 4146368.07 0.00787b (11122724)
575471.86 4146368.07 0.00963b (11122724) 575511.86 4146368.07 0.01194b (11122724)
575551.86 4146368.07 0.01494b (12122824) 575591.86 4146368.07 0.03233b (12122824)
575311.86 4146408.07 0.00280b (11020224) 575351.86 4146408.07 0.00318b (11020224)
575391.86 4146408.07 0.00370b (11122724) 575431.86 4146408.07 0.00443b (11122724)
575471.86 4146408.07 0.00679m (12112224) 575511.86 4146408.07 0.01081m (12112224)
575551.86 4146408.07 0.01704b (12122824) 575591.86 4146408.07 0.03666b (12122824)
575311.86 4146448.07 0.00280m (12112224) 575351.86 4146448.07 0.00410m (12112224)
575391.86 4146448.07 0.00586m (12112224) 575431.86 4146448.07 0.00810m (12112224)
575471.86 4146448.07 0.01057m (12112224) 575591.86 4146448.07 0.03746m (12121524)
575631.86 4146448.07 0.05667m (10120824) 575311.86 4146488.07 0.00504m (12112224)
575351.86 4146488.07 0.00641m (12112224) 575391.86 4146488.07 0.00781m (12112224)
575431.86 4146488.07 0.00897m (12112224) 575471.86 4146488.07 0.01027m (11112324)
575511.86 4146488.07 0.01586m (11112324) 575551.86 4146488.07 0.02338m (12121524)
575591.86 4146488.07 0.03653m (12121524) 575631.86 4146488.07 0.04335m (10120824)

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       575351.86   4146528.07        0.00656m (12112224)               575391.86
 4146528.07        0.00676m (12112224)
       575431.86   4146528.07        0.00897m (11112324)               575471.86
 4146528.07        0.01246m (11112324)
       575511.86   4146528.07        0.01621m (12121524)               575551.86
 4146528.07        0.02529m (12121524)
       575591.86   4146528.07        0.02961m (12121524)               575351.86
 4146568.07        0.00571m (11112324)
       575391.86   4146568.07        0.00772m (11112324)               575431.86
 4146568.07        0.00992m (11112324)
       575471.86   4146568.07        0.01204m (12121524)               575511.86
 4146568.07        0.01835m (12121524)
       575551.86   4146568.07        0.02237m (12121524)               575711.86
 4146568.07        0.01713m (13120624)
       575751.86   4146568.07        0.01180m (12122224)               575391.86
 4146608.07        0.00804m (11112324)
       575421.52   4146612.50        0.00886m (11112324)               575591.86
 4146648.07        0.01490m (10120824)
       575631.86   4146648.07        0.01375m (10120824)               575671.86
 4146648.07        0.01271m (13120624)
       575551.86   4146688.07        0.01348m (10122024)               575591.86
 4146688.07        0.01220m (10120824)
       575631.86   4146688.07        0.01078m (10120824)               575671.86
 4146688.07        0.01056m (13120624)
       575551.86   4146728.07        0.01063m (10122024)               575591.86
 4146728.07        0.01009m (10120824)
       575631.86   4146728.07        0.00867m (13120624)               575671.86
 4146728.07        0.00884m (13120624)
↑ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:05:53

                                  PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                  *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                   ** CONC OF PM_2.5   IN MICROGRAMS/M**3
              **


                        NETWORK
GROUP ID                      AVERAGE CONC                RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       0.03012 AT (  575671.86,  4146288.07,
8.28,     8.28,    0.00)  DC
          2ND HIGHEST VALUE IS       0.02392 AT (  575631.86,  4146328.07,
8.21,     8.21,    0.00)  DC
          3RD HIGHEST VALUE IS       0.02299 AT (  575749.73,  4146237.93,
8.59,    11.64,    0.00)  DC
          4TH HIGHEST VALUE IS       0.02107 AT (  575709.73,  4146237.93,
8.51,     8.51,    0.00)  DC
          5TH HIGHEST VALUE IS       0.01637 AT (  575751.86,  4146208.07,
9.12,    11.86,    0.00)  DC
          6TH HIGHEST VALUE IS       0.01628 AT (  575671.86,  4146248.07,
8.69,     8.69,    0.00)  DC
          7TH HIGHEST VALUE IS       0.01443 AT (  575711.86,  4146208.07,
8.97,     8.97,    0.00)  DC
          8TH HIGHEST VALUE IS       0.01287 AT (  575631.86,  4146288.07,
8.32,     8.32,    0.00)  DC
          9TH HIGHEST VALUE IS       0.01097 AT (  575751.86,  4146168.07,
9.33,    11.83,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00998 AT (  575671.86,  4146208.07,
8.95,     8.95,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Woodland
Park\Woodland Park_Const\Woodland Park ***        10/18/20
 *** AERMET - VERSION  14134 ***   ***
                       ***        23:05:53

                                  PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                  ** CONC OF PM_2.5   IN MICROGRAMS/M**3
              **

                                                      DATE
                                       NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

- -

ALL HIGH 1ST HIGH VALUE IS 0.23619 ON 12123117: AT (575671.86, 4146288.07, 8.28, 8.28, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	NETWORK CONC OF TYPE	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	GRID-ID
ALL	HIGH	1ST HIGH VALUE IS	0.05721m ON 13120824:	AT (575631.86, 4146328.07, 8.21, 8.21, 0.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

```
*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            1 Warning Message(s)
A Total of        30785 Informational Message(s)

A Total of        43872 Hours Were Processed

A Total of         1576 Calm Hours Identified

A Total of        29209 Missing Hours Identified ( 66.58 Percent)

CAUTION!:  Number of Missing Hours Exceeds 10 Percent of Total!
           Data May Not Be Acceptable for Regulatory Applications.
           See Section 5.3.2 of "Meteorological Monitoring Guidance
           for Regulatory Modeling Applications" (EPA-454/R-99-005).


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
MX W481   43873         MAIN: Data Remaining After End of Year. Number of Hours=
       48

   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
```

*HARP - HRACalc v19044 10/18/2020 11:31:13 PM - Cancer Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Woodland Park\Const_Unmit_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	WATER_RISK	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK
1			9901	DieselExhPM	0.306	9.76E-05	3YrCancerHighEnd_Inh_FAH3to70	*	9.76E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2			107028	Acrolein	0	0.00E+00	3YrCancerHighEnd_Inh_FAH3to70	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CHICKEN_RISK	EGG_RISK	1ST_DRIVER	2ND_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 10/18/2020 11:31:13 PM - Acute Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Woodland Park\Const_Unmit_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
1			9901	DieselExhPM	2.39873	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2			107028	Acrolein	2.39873	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.59E-01	0.00E+00	9.59E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 10/18/2020 11:31:13 PM - Chronic Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Woodland Park\Const_Unmit_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_DOSE	MMILK_DOSE
1			9901	DieselExhPM	0.306	NonCance	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.12E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*	3.06E-01	0.00E+00	0.00E+00	0.00E+00
2			107028	Acrolein	0	NonCance	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00

WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE	1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 10/18/2020 11:27:09 PM - Cancer Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Woodland Park\Const_Mit_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	WATER_RISK	FISH_RISK	CROP_RISK	BEEF_RISK
	1		9901	DieselExhPM	0.0301	9.60E-06	3YrCancer	*	9.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2		107028	Acrolein	0	0.00E+00	3YrCancer	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

DAIRY_RISK	PIG_RISK	CHICKEN_RISK	EGG_RISK	1ST_DRIVER	2ND_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 10/18/2020 11:27:09 PM - Acute Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Woodland Park\Const_Mit_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
1			9901	DieselExhPM	0.23619	NonCancer/	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2			107028	Acrolein	0.23619	NonCancer/	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.45E-02	0.00E+00	9.45E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 10/18/2020 11:27:09 PM - Chronic Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Woodland Park\Const_Mit_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_DOSE
	1		9901	DieselExhPM	0.0301	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*	3.01E-02	0.00E+00	0.00E+00
	2		107028	Acrolein	0	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*	0.00E+00	0.00E+00	0.00E+00

MMILK_DOSE	WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE	1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

Operational Emissions

Equipment	Fuel	Quantity	HP	LF	Total Hrs/Year	Emissions Factor (g/hp/hr) $PM_{2.5}$	Annual Emissions grams $PM_{2.5}$	Emissions Rate (g/sec)	Emissions Factor (g/hp/hr) TOG	Annual Emissions grams TOG	Emissions Rate (g/sec)
Fire Pump	Diesel	1	305	0.74	50	0.03	338.55	1.07E-05	1.120373	12643.40931	4.01E-04
									1.120373	0	0.00E+00

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.9.0
** Lakes Environmental Software Inc.
** Date: 10/27/2020
** File: C:\Lakes\AERMOD View\Woodland Park_Pump Ops_v3\Woodland Park_Pump
Ops_v3.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Woodland Operations - Pump Station
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL "Woodland Park_Pump Ops_v3.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      575452.990  4146620.140        7.930
** DESCRSRC Pump Station
** Source Parameters **
   SRCPARAM STCK1        0.0000107     6.100   797.000  20.00000     0.300

   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
```

```
RE STARTING
   INCLUDED "Woodland Park_Pump Ops_v3.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
** Surface File Path: C:\Lakes\AERMOD View\Woodland Park_Pump Ops_v3\
   SURFFILE 724937.SFC
** Profile File Path: C:\Lakes\AERMOD View\Woodland Park_Pump Ops_v3\
   PROFFILE 724937.PFL
   SURFDATA 23289 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 2.1 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Maximum Annual Average POST files for Each Met Year
   POSTFILE ANNUAL ALL PLOT "C:\Lakes\AERMOD View\Woodland Park_Pump
Ops_v3\Woodland Park_Pump Ops_v3.AD\ANNUAL_G001.PLT" 31
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "C:\Lakes\AERMOD View\Woodland Park_Pump Ops_v3\Woodland
Park_Pump Ops_v3.AD\01H1GALL.PLT" 32
   PLOTFILE ANNUAL ALL "C:\Lakes\AERMOD View\Woodland Park_Pump Ops_v3\Woodland
Park_Pump Ops_v3.AD\AN00GALL.PLT" 33
   SUMMFILE "C:\Lakes\AERMOD View\Woodland Park_Pump Ops_v3\Woodland Park_Pump
Ops_v3.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
```

```
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.9.0
** Lakes Environmental Software Inc.
** Date: 10/26/2020
** File: C:\Lakes\AERMOD View\Woodland Park_Pump Ops_v3\Woodland Park_Pump
Ops_v3.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Woodland Operations - Pump Station
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL "Woodland Park_Pump Ops_v3.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      575452.990  4146620.140        7.930
** DESCRSRC Pump Station
** Source Parameters **
   SRCPARAM STCK1        0.0000107     6.100   797.000  20.00000     0.300
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
```

```
   INCLUDED "Woodland Park_Pump Ops_v3.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE 724937.SFC
   PROFFILE 724937.PFL
   SURFDATA 23289 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 2.1 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Maximum Annual Average POST files for Each Met Year
   POSTFILE ANNUAL ALL PLOT "Woodland Park_Pump Ops_v3.AD\ANNUAL_G001.PLT" 31
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "Woodland Park_Pump Ops_v3.AD\01H1GALL.PLT" 32
   PLOTFILE ANNUAL ALL "Woodland Park_Pump Ops_v3.AD\AN00GALL.PLT" 33
   SUMMFILE "Woodland Park_Pump Ops_v3.sum"
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************

 *** AERMOD - VERSION  19191 ***   *** Woodland Operations - Pump Station
                          ***        10/26/20
 *** AERMET - VERSION  14134 ***   ***
                         ***       20:14:18

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                          ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
```

```
 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and     211
Receptor(s)

                with:      1 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with      0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
```

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of Concurrent Values for Postprocessing (POSTFILE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 2.10 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ;
Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: Woodland Park_Pump Ops_v3.err

**File for Summary of Results: Woodland Park_Pump Ops_v3.sum

*** AERMOD - VERSION 19191 *** *** Woodland Operations - Pump Station ***
*** AERMET - VERSION 14134 *** *** 10/26/20 ***
20:14:18

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL.	STACK DIAMETER	BLDG EXISTS	URBAN SOURCE	CAP/ HOR SCALAR	EMIS RATE

```
(M/SEC)  (METERS)                      VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 STCK1            0   0.10700E-04  575453.0 4146620.1     7.9     6.10   797.00
20.00     0.30    NO      NO    NO
↑ *** AERMOD - VERSION  19191 ***   *** Woodland Operations - Pump Station
                          ***       10/26/20
 *** AERMET - VERSION  14134 ***   ***
                        ***        20:14:18

                                   PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                      SOURCE IDs
 -----------                                                      ----------


  ALL        STCK1       ,
↑ *** AERMOD - VERSION  19191 ***   *** Woodland Operations - Pump Station
                          ***       10/26/20
 *** AERMET - VERSION  14134 ***   ***
                        ***        20:14:18

                                   PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)

     ( 575188.2, 4146358.5,      11.3,      11.3,       0.0);         ( 575218.2,
4146358.5,      11.4,      11.4,       0.0);
     ( 575248.2, 4146358.5,      11.1,      11.1,       0.0);         ( 575278.2,
4146358.5,      10.7,      10.7,       0.0);
     ( 575308.2, 4146358.5,      10.0,      10.0,       0.0);         ( 575338.2,
4146358.5,       9.7,       9.7,       0.0);
     ( 575368.2, 4146358.5,       9.3,       9.3,       0.0);         ( 575398.2,
4146358.5,       8.8,       8.8,       0.0);
     ( 575428.2, 4146358.5,       8.7,       8.7,       0.0);         ( 575458.2,
4146358.5,       8.4,       8.4,       0.0);
     ( 575488.2, 4146358.5,       8.2,       8.2,       0.0);         ( 575518.2,
4146358.5,       8.2,       8.2,       0.0);
     ( 575548.2, 4146358.5,       7.9,       7.9,       0.0);         ( 575578.2,
```

4146358.5, 7.7, 7.7, 0.0);
(575608.2, 4146358.5, 7.8, 7.8, 0.0); (575638.2, 4146358.5, 8.2, 8.2, 0.0);
(575188.2, 4146388.5, 11.2, 11.2, 0.0); (575218.2, 4146388.5, 11.4, 11.4, 0.0);
(575248.2, 4146388.5, 11.1, 11.1, 0.0); (575278.2, 4146388.5, 10.7, 10.7, 0.0);
(575308.2, 4146388.5, 10.0, 10.0, 0.0); (575338.2, 4146388.5, 9.9, 9.9, 0.0);
(575368.2, 4146388.5, 9.4, 9.4, 0.0); (575398.2, 4146388.5, 8.7, 8.7, 0.0);
(575428.2, 4146388.5, 8.6, 8.6, 0.0); (575458.2, 4146388.5, 8.4, 8.4, 0.0);
(575488.2, 4146388.5, 8.1, 8.1, 0.0); (575518.2, 4146388.5, 8.0, 8.0, 0.0);
(575548.2, 4146388.5, 7.8, 7.8, 0.0); (575578.2, 4146388.5, 7.6, 7.6, 0.0);
(575608.2, 4146388.5, 7.8, 7.8, 0.0); (575638.2, 4146388.5, 7.9, 7.9, 0.0);
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(575248.2, 4146418.5, 11.0, 11.0, 0.0); (575278.2, 4146418.5, 10.7, 10.7, 0.0);
(575308.2, 4146418.5, 10.4, 10.4, 0.0); (575338.2, 4146418.5, 10.2, 10.2, 0.0);
(575368.2, 4146418.5, 9.3, 9.3, 0.0); (575398.2, 4146418.5, 8.7, 8.7, 0.0);
(575428.2, 4146418.5, 8.6, 8.6, 0.0); (575458.2, 4146418.5, 8.2, 8.2, 0.0);
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(575548.2, 4146418.5, 7.8, 7.8, 0.0); (575578.2, 4146418.5, 7.4, 7.4, 0.0);
(575608.2, 4146418.5, 7.6, 7.6, 0.0); (575638.2, 4146418.5, 7.5, 7.5, 0.0);
(575188.2, 4146448.5, 10.6, 10.6, 0.0); (575218.2, 4146448.5, 10.9, 10.9, 0.0);
(575248.2, 4146448.5, 10.7, 10.7, 0.0); (575278.2, 4146448.5, 10.5, 10.5, 0.0);
(575308.2, 4146448.5, 10.8, 10.8, 0.0); (575338.2, 4146448.5, 10.1, 10.1, 0.0);
(575368.2, 4146448.5, 9.2, 9.2, 0.0); (575398.2, 4146448.5, 8.7, 8.7, 0.0);
(575428.2, 4146448.5, 8.6, 8.6, 0.0); (575458.2, 4146448.5, 7.9, 7.9, 0.0);
(575488.2, 4146448.5, 7.6, 7.6, 0.0); (575518.2, 4146448.5, 7.5, 7.5, 0.0);
(575548.2, 4146448.5, 7.3, 7.3, 0.0); (575578.2,

4146448.5, 7.3, 7.3, 0.0);
(575608.2, 4146448.5, 7.3, 7.3, 0.0); (575638.2, 4146448.5, 7.4, 7.4, 0.0);
(575188.2, 4146478.5, 10.2, 10.2, 0.0); (575218.2, 4146478.5, 10.5, 10.5, 0.0);
(575248.2, 4146478.5, 10.3, 10.3, 0.0); (575278.2, 4146478.5, 10.0, 10.0, 0.0);
(575308.2, 4146478.5, 9.7, 9.7, 0.0); (575338.2, 4146478.5, 9.4, 9.4, 0.0);
(575368.2, 4146478.5, 9.0, 9.0, 0.0); (575398.2, 4146478.5, 8.6, 8.6, 0.0);
(575428.2, 4146478.5, 8.3, 8.3, 0.0); (575458.2, 4146478.5, 7.9, 7.9, 0.0);
(575488.2, 4146478.5, 7.7, 7.7, 0.0); (575518.2, 4146478.5, 7.4, 7.4, 0.0);
(575548.2, 4146478.5, 7.3, 7.3, 0.0); (575578.2, 4146478.5, 7.6, 7.6, 0.0);
(575608.2, 4146478.5, 7.2, 7.2, 0.0); (575638.2, 4146478.5, 7.1, 7.1, 0.0);
(575188.2, 4146508.5, 10.7, 10.7, 0.0); (575218.2, 4146508.5, 10.5, 10.5, 0.0);
(575248.2, 4146508.5, 10.3, 10.3, 0.0); (575278.2, 4146508.5, 10.2, 10.2, 0.0);
(575308.2, 4146508.5, 9.7, 9.7, 0.0); (575338.2, 4146508.5, 9.3, 9.3, 0.0);
(575368.2, 4146508.5, 8.9, 8.9, 0.0); (575398.2, 4146508.5, 8.6, 8.6, 0.0);
(575428.2, 4146508.5, 8.5, 8.5, 0.0); (575458.2, 4146508.5, 7.8, 7.8, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(575488.2, 4146508.5, 7.7, 7.7, 0.0); (575518.2, 4146508.5, 7.3, 7.3, 0.0);
(575548.2, 4146508.5, 7.2, 7.2, 0.0); (575578.2, 4146508.5, 7.5, 7.5, 0.0);
(575188.2, 4146538.5, 10.9, 10.9, 0.0); (575218.2, 4146538.5, 10.6, 10.6, 0.0);
(575248.2, 4146538.5, 10.2, 10.2, 0.0); (575278.2,

```
4146538.5,       9.9,       9.9,       0.0);
     ( 575308.2, 4146538.5,       9.7,       9.7,       0.0);         ( 575338.2,
4146538.5,       9.2,       9.2,       0.0);
     ( 575368.2, 4146538.5,       8.8,       8.8,       0.0);         ( 575398.2,
4146538.5,       8.3,       8.3,       0.0);
     ( 575428.2, 4146538.5,       7.9,       7.9,       0.0);         ( 575458.2,
4146538.5,       7.7,       7.7,       0.0);
     ( 575488.2, 4146538.5,       7.8,       7.8,       0.0);         ( 575518.2,
4146538.5,       7.3,       7.3,       0.0);
     ( 575548.2, 4146538.5,       7.3,       7.3,       0.0);         ( 575578.2,
4146538.5,       7.0,       7.0,       0.0);
     ( 575188.2, 4146568.5,      10.9,      10.9,       0.0);         ( 575218.2,
4146568.5,      10.7,      10.7,       0.0);
     ( 575248.2, 4146568.5,      10.3,      10.3,       0.0);         ( 575278.2,
4146568.5,       9.7,       9.7,       0.0);
     ( 575308.2, 4146568.5,       9.4,       9.4,       0.0);         ( 575338.2,
4146568.5,       9.2,       9.2,       0.0);
     ( 575368.2, 4146568.5,       8.7,       8.7,       0.0);         ( 575398.2,
4146568.5,       8.4,       8.4,       0.0);
     ( 575428.2, 4146568.5,       7.9,       7.9,       0.0);         ( 575458.2,
4146568.5,       7.8,       7.8,       0.0);
     ( 575488.2, 4146568.5,       7.6,       7.6,       0.0);         ( 575518.2,
4146568.5,       7.2,       7.2,       0.0);
     ( 575548.2, 4146568.5,       7.0,       7.0,       0.0);         ( 575188.2,
4146598.5,      10.2,      10.2,       0.0);
     ( 575218.2, 4146598.5,      10.5,      10.5,       0.0);         ( 575248.2,
4146598.5,      10.7,      10.7,       0.0);
     ( 575278.2, 4146598.5,      10.5,      10.5,       0.0);         ( 575308.2,
4146598.5,      10.0,      10.0,       0.0);
     ( 575338.2, 4146598.5,       9.2,       9.2,       0.0);         ( 575368.2,
4146598.5,       8.7,       8.7,       0.0);
     ( 575398.2, 4146598.5,       8.3,       8.3,       0.0);         ( 575428.2,
4146598.5,       8.0,       8.0,       0.0);
     ( 575188.2, 4146628.5,       9.7,       9.7,       0.0);         ( 575218.2,
4146628.5,      10.1,      10.1,       0.0);
     ( 575248.2, 4146628.5,      10.4,      10.4,       0.0);         ( 575278.2,
4146628.5,      10.3,      10.3,       0.0);
     ( 575308.2, 4146628.5,      10.4,      10.4,       0.0);         ( 575338.2,
4146628.5,       9.9,       9.9,       0.0);
     ( 575368.2, 4146628.5,       8.9,       8.9,       0.0);         ( 575398.2,
4146628.5,       8.6,       8.6,       0.0);
     ( 575428.2, 4146628.5,       8.1,       8.1,       0.0);         ( 575638.2,
4146628.5,       6.5,       6.5,       0.0);
     ( 575188.2, 4146658.5,       9.3,       9.3,       0.0);         ( 575218.2,
4146658.5,       9.6,       9.6,       0.0);
     ( 575248.2, 4146658.5,      10.2,      10.2,       0.0);         ( 575278.2,
4146658.5,      10.3,      10.3,       0.0);
     ( 575308.2, 4146658.5,      10.3,      10.3,       0.0);         ( 575338.2,
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4146658.5, 9.8, 9.8, 0.0);
(575368.2, 4146658.5, 9.3, 9.3, 0.0); (575398.2,
4146658.5, 8.9, 8.9, 0.0);
(575578.2, 4146658.5, 6.7, 6.7, 0.0); (575608.2,
4146658.5, 6.6, 6.6, 0.0);
(575638.2, 4146658.5, 6.3, 6.3, 0.0); (575188.2,
4146688.5, 8.7, 8.7, 0.0);
(575218.2, 4146688.5, 9.2, 9.2, 0.0); (575248.2,
4146688.5, 10.1, 10.1, 0.0);
(575278.2, 4146688.5, 10.2, 10.2, 0.0); (575308.2,
4146688.5, 10.2, 10.2, 0.0);
(575338.2, 4146688.5, 9.7, 9.7, 0.0); (575368.2,
4146688.5, 9.1, 9.1, 0.0);
(575518.2, 4146688.5, 7.3, 7.3, 0.0); (575548.2,
4146688.5, 6.8, 6.8, 0.0);
(575578.2, 4146688.5, 6.6, 6.6, 0.0); (575608.2,
4146688.5, 6.4, 6.4, 0.0);
(575638.2, 4146688.5, 6.3, 6.3, 0.0); (575188.2,
4146718.5, 8.5, 8.5, 0.0);
(575218.2, 4146718.5, 9.1, 9.1, 0.0); (575248.2,
4146718.5, 10.0, 10.0, 0.0);
(575278.2, 4146718.5, 10.1, 10.1, 0.0); (575308.2,
4146718.5, 10.0, 10.0, 0.0);
(575338.2, 4146718.5, 9.7, 9.7, 0.0); (575458.2,
4146718.5, 8.2, 8.2, 0.0);
(575488.2, 4146718.5, 7.7, 7.7, 0.0); (575518.2,
4146718.5, 7.0, 7.0, 0.0);
(575548.2, 4146718.5, 6.6, 6.6, 0.0); (575578.2,
4146718.5, 6.5, 6.5, 0.0);
(575608.2, 4146718.5, 6.3, 6.3, 0.0); (575638.2,
4146718.5, 6.1, 6.1, 0.0);
(575188.2, 4146748.5, 8.2, 8.2, 0.0); (575218.2,
4146748.5, 8.8, 8.8, 0.0);
(575248.2, 4146748.5, 9.6, 9.6, 0.0); (575278.2,
4146748.5, 10.2, 10.2, 0.0);
*** AERMOD - VERSION 19191 *** *** Woodland Operations - Pump Station
*** 10/26/20
*** AERMET - VERSION 14134 *** ***
*** 20:14:18

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(575308.2, 4146748.5, 9.9, 9.9, 0.0); (575458.2,

4146748.5,   8.4,   8.4,   0.0);
     (575488.2, 4146748.5,   7.7,   7.7,   0.0);   (575518.2,
4146748.5,   7.1,   7.1,   0.0);
     (575548.2, 4146748.5,   6.7,   6.7,   0.0);   (575578.2,
4146748.5,   6.4,   6.4,   0.0);
     (575608.2, 4146748.5,   6.3,   6.3,   0.0);   (575638.2,
4146748.5,   6.0,   6.0,   0.0);
     (575188.2, 4146778.5,   8.2,   8.2,   0.0);   (575218.2,
4146778.5,   8.5,   8.5,   0.0);
     (575248.2, 4146778.5,   9.2,   9.2,   0.0);   (575398.2,
4146778.5,   9.5,   9.5,   0.0);
     (575428.2, 4146778.5,   9.3,   9.3,   0.0);   (575458.2,
4146778.5,   8.4,   8.4,   0.0);
     (575488.2, 4146778.5,   7.7,   7.7,   0.0);   (575518.2,
4146778.5,   7.1,   7.1,   0.0);
     (575548.2, 4146778.5,   6.7,   6.7,   0.0);   (575578.2,
4146778.5,   6.3,   6.3,   0.0);
     (575608.2, 4146778.5,   6.2,   6.2,   0.0);   (575638.2,
4146778.5,   6.1,   6.1,   0.0);
     (575188.2, 4146808.5,   7.9,   7.9,   0.0);   (575368.2,
4146808.5,   9.8,   9.8,   0.0);
     (575398.2, 4146808.5,   9.9,   9.9,   0.0);   (575428.2,
4146808.5,   9.2,   9.2,   0.0);
     (575458.2, 4146808.5,   8.4,   8.4,   0.0);   (575488.2,
4146808.5,   7.7,   7.7,   0.0);
     (575518.2, 4146808.5,   7.1,   7.1,   0.0);   (575548.2,
4146808.5,   6.7,   6.7,   0.0);
     (575578.2, 4146808.5,   6.4,   6.4,   0.0);   (575608.2,
4146808.5,   6.2,   6.2,   0.0);
     (575638.2, 4146808.5,   6.0,   6.0,   0.0);

 *** MODELOPTs: RegDFAULT CONC ELEV RURAL

                                              *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                                  (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1

```
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

↑ *** AERMOD - VERSION 19191 *** *** Woodland Operations - Pump Station *** 10/26/20

*** AERMET - VERSION 14134 *** *** *** 20:14:18

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

```
   Surface file:   724937.SFC
                 Met Version:  14134
   Profile file:   724937.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:    23289                Upper air station no.:    23230
                 Name: UNKNOWN                                   Name: OAKLAND/WSO_AP
                 Year:   2009                                    Year:   2009
```

First 24 hours of scalar data

YR MO DY JDY HR H0 U* W* DT/DZ ZICNV ZIMCH M-O LEN Z0 BOWEN

```
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 09 01 01   1 01 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00  999.00  999.   -9.0  999.0   -9.0
 09 01 01   1 02 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00  999.00  999.   -9.0  999.0   -9.0
 09 01 01   1 03 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00  999.00  999.   -9.0  999.0   -9.0
 09 01 01   1 04 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00  999.00  999.   -9.0  999.0   -9.0
 09 01 01   1 05 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00  999.00  999.   -9.0  999.0   -9.0
 09 01 01   1 06 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00  999.00  999.   -9.0  999.0   -9.0
 09 01 01   1 07   -7.2  0.126 -9.000 -9.000 -999.  107.     25.2  0.04   0.36
1.00    2.36  999.   10.0  282.1    2.0
 09 01 01   1 08   -7.2  0.125 -9.000 -9.000 -999.  106.     25.0  0.04   0.36
0.73    2.36  999.   10.0  281.1    2.0
 09 01 01   1 09   -4.5  0.212 -9.000 -9.000 -999.  235.    195.5  0.01   0.36
0.37    3.86  327.   10.0  282.1    2.0
 09 01 01   1 10    4.5  0.252  0.215  0.015   80.  304.   -322.7  0.01   0.36
0.25    4.36  341.   10.0  282.1    2.0
 09 01 01   1 11    9.5  0.218  0.333  0.015  140.  245.    -99.2  0.04   0.36
0.20    2.86  999.   10.0  282.1    2.0
 09 01 01   1 12   12.3  0.232  0.402  0.015  192.  268.    -91.9  0.00   0.36
0.19    4.36    6.   10.0  282.1    2.0
 09 01 01   1 13   12.8  0.203  0.434  0.015  232.  220.    -59.9  0.01   0.36
0.18    3.36  333.   10.0  282.1    2.0
 09 01 01   1 14   52.4  0.238  0.799  0.016  354.  278.    -23.3  0.04   0.36
0.19    2.86  999.   10.0  283.1    2.0
 09 01 01   1 15   37.3  0.200  0.756  0.017  421.  214.    -19.4  0.04   0.36
0.22    2.36  999.   10.0  285.1    2.0
 09 01 01   1 16   14.6  0.222  0.561  0.017  438.  251.    -67.8  0.04   0.36
0.30    2.86  999.   10.0  284.1    2.0
 09 01 01   1 17  -11.9  0.162 -9.000 -9.000 -999.  157.     32.4  0.04   0.36
0.54    2.86  999.   10.0  283.1    2.0
 09 01 01   1 18  -13.2  0.132 -9.000 -9.000 -999.  115.     15.9  0.01   0.36
1.00    3.36  327.   10.0  281.1    2.0
 09 01 01   1 19 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00    0.00    0.   10.0  280.1    2.0
 09 01 01   1 20 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00    0.00    0.   10.0  280.1    2.0
 09 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00    0.00    0.   10.0  280.1    2.0
 09 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
1.00  999.00  999.   -9.0  999.0   -9.0
 09 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.04   0.36
```

1.00 999.00 999.   -9.0 999.0   -9.0
 09 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.04   0.36
1.00 999.00 999.   -9.0 999.0   -9.0

First hour of profile data
YR MO DY HR HEIGHT F WDIR   WSPD AMB_TMP sigmaA sigmaW sigmaV
09 01 01 01   10.0 1 -999. -99.00 -999.0   99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 19191 ***   *** Woodland Operations - Pump Station
***   10/26/20
*** AERMET - VERSION 14134 ***   ***
***   20:14:18

PAGE   9
*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   STCK1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
575188.22	4146358.47	0.00001	575218.22	4146358.47	0.00001
575248.22	4146358.47	0.00001	575278.22	4146358.47	0.00001
575308.22	4146358.47	0.00002	575338.22	4146358.47	0.00002
575368.22	4146358.47	0.00003	575398.22	4146358.47	0.00005
575428.22	4146358.47	0.00006	575458.22	4146358.47	0.00007
575488.22	4146358.47	0.00009	575518.22	4146358.47	0.00009
575548.22	4146358.47	0.00009	575578.22	4146358.47	0.00008
575608.22	4146358.47	0.00007	575638.22	4146358.47	0.00006

575188.22	4146388.47	0.00001	575218.22	4146388.47	0.00001
575248.22	4146388.47	0.00001	575278.22	4146388.47	0.00001
575308.22	4146388.47	0.00002	575338.22	4146388.47	0.00002
575368.22	4146388.47	0.00003	575398.22	4146388.47	0.00005
575428.22	4146388.47	0.00007	575458.22	4146388.47	0.00009
575488.22	4146388.47	0.00010	575518.22	4146388.47	0.00011
575548.22	4146388.47	0.00010	575578.22	4146388.47	0.00009
575608.22	4146388.47	0.00007	575638.22	4146388.47	0.00006
575188.22	4146418.47	0.00001	575218.22	4146418.47	0.00001
575248.22	4146418.47	0.00001	575278.22	4146418.47	0.00001
575308.22	4146418.47	0.00001	575338.22	4146418.47	0.00002
575368.22	4146418.47	0.00003	575398.22	4146418.47	0.00005
575428.22	4146418.47	0.00007	575458.22	4146418.47	0.00010
575488.22	4146418.47	0.00012	575518.22	4146418.47	0.00012
575548.22	4146418.47	0.00011	575578.22	4146418.47	0.00009
575608.22	4146418.47	0.00007	575638.22	4146418.47	0.00006
575188.22	4146448.47	0.00001	575218.22	4146448.47	0.00001
575248.22	4146448.47	0.00001	575278.22	4146448.47	0.00001
575308.22	4146448.47	0.00001	575338.22	4146448.47	0.00002
575368.22	4146448.47	0.00003	575398.22	4146448.47	0.00005
575428.22	4146448.47	0.00008	575458.22	4146448.47	0.00011
575488.22	4146448.47	0.00013	575518.22	4146448.47	0.00013
575548.22	4146448.47	0.00011	575578.22	4146448.47	0.00008
575608.22	4146448.47	0.00007	575638.22	4146448.47	0.00005

575188.22   4146478.47   0.00001   575218.22
4146478.47   0.00001
575248.22   4146478.47   0.00001   575278.22
4146478.47   0.00001
575308.22   4146478.47   0.00001   575338.22
4146478.47   0.00002
575368.22   4146478.47   0.00003   575398.22
4146478.47   0.00005
575428.22   4146478.47   0.00008   575458.22
4146478.47   0.00013
575488.22   4146478.47   0.00015   575518.22
4146478.47   0.00014
575548.22   4146478.47   0.00010   575578.22
4146478.47   0.00008
575608.22   4146478.47   0.00006   575638.22
4146478.47   0.00005
↑ *** AERMOD - VERSION 19191 ***   *** Woodland Operations - Pump Station
***   10/26/20
*** AERMET - VERSION 14134 ***   ***
***   20:14:18

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   STCK1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_2.5   IN MICROGRAMS/M**3
**

X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
- -
- -
575188.22   4146508.47   0.00001   575218.22
4146508.47   0.00001
575248.22   4146508.47   0.00001   575278.22
4146508.47   0.00001
575308.22   4146508.47   0.00001   575338.22
4146508.47   0.00001
575368.22   4146508.47   0.00002   575398.22
4146508.47   0.00004
575428.22   4146508.47   0.00007   575458.22
4146508.47   0.00013

```
        575488.22    4146508.47        0.00015                    575518.22
4146508.47        0.00012
        575548.22    4146508.47        0.00009                    575578.22
4146508.47        0.00007
        575188.22    4146538.47        0.00000                    575218.22
4146538.47        0.00001
        575248.22    4146538.47        0.00001                    575278.22
4146538.47        0.00001
        575308.22    4146538.47        0.00001                    575338.22
4146538.47        0.00001
        575368.22    4146538.47        0.00001                    575398.22
4146538.47        0.00002
        575428.22    4146538.47        0.00005                    575458.22
4146538.47        0.00009
        575488.22    4146538.47        0.00011                    575518.22
4146538.47        0.00008
        575548.22    4146538.47        0.00007                    575578.22
4146538.47        0.00006
        575188.22    4146568.47        0.00000                    575218.22
4146568.47        0.00001
        575248.22    4146568.47        0.00001                    575278.22
4146568.47        0.00001
        575308.22    4146568.47        0.00001                    575338.22
4146568.47        0.00001
        575368.22    4146568.47        0.00001                    575398.22
4146568.47        0.00001
        575428.22    4146568.47        0.00001                    575458.22
4146568.47        0.00003
        575488.22    4146568.47        0.00003                    575518.22
4146568.47        0.00005
        575548.22    4146568.47        0.00006                    575188.22
4146598.47        0.00000
        575218.22    4146598.47        0.00000                    575248.22
4146598.47        0.00001
        575278.22    4146598.47        0.00001                    575308.22
4146598.47        0.00001
        575338.22    4146598.47        0.00001                    575368.22
4146598.47        0.00001
        575398.22    4146598.47        0.00000                    575428.22
4146598.47        0.00000
        575188.22    4146628.47        0.00000                    575218.22
4146628.47        0.00000
        575248.22    4146628.47        0.00001                    575278.22
4146628.47        0.00001
        575308.22    4146628.47        0.00001                    575338.22
4146628.47        0.00001
        575368.22    4146628.47        0.00001                    575398.22
4146628.47        0.00000
```

575428.22 4146628.47 0.00000 575638.22 4146628.47 0.00002
575188.22 4146658.47 0.00000 575218.22 4146658.47 0.00000
575248.22 4146658.47 0.00001 575278.22 4146658.47 0.00001
575308.22 4146658.47 0.00001 575338.22 4146658.47 0.00001
575368.22 4146658.47 0.00001 575398.22 4146658.47 0.00001
575578.22 4146658.47 0.00002 575608.22 4146658.47 0.00002
575638.22 4146658.47 0.00002 575188.22 4146688.47 0.00000
575218.22 4146688.47 0.00000 575248.22 4146688.47 0.00001
575278.22 4146688.47 0.00001 575308.22 4146688.47 0.00001
575338.22 4146688.47 0.00001 575368.22 4146688.47 0.00002
575518.22 4146688.47 0.00002 575548.22 4146688.47 0.00002

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
575578.22	4146688.47	0.00002	575608.22	4146688.47	0.00002
575638.22	4146688.47	0.00001	575188.22	4146718.47	0.00000

```
         575218.22    4146718.47        0.00001                    575248.22
4146718.47        0.00001
         575278.22    4146718.47        0.00001                    575308.22
4146718.47        0.00001
         575338.22    4146718.47        0.00002                    575458.22
4146718.47        0.00002
         575488.22    4146718.47        0.00002                    575518.22
4146718.47        0.00002
         575548.22    4146718.47        0.00001                    575578.22
4146718.47        0.00001
         575608.22    4146718.47        0.00001                    575638.22
4146718.47        0.00001
         575188.22    4146748.47        0.00001                    575218.22
4146748.47        0.00001
         575248.22    4146748.47        0.00001                    575278.22
4146748.47        0.00001
         575308.22    4146748.47        0.00002                    575458.22
4146748.47        0.00002
         575488.22    4146748.47        0.00002                    575518.22
4146748.47        0.00001
         575548.22    4146748.47        0.00001                    575578.22
4146748.47        0.00001
         575608.22    4146748.47        0.00001                    575638.22
4146748.47        0.00001
         575188.22    4146778.47        0.00001                    575218.22
4146778.47        0.00001
         575248.22    4146778.47        0.00001                    575398.22
4146778.47        0.00002
         575428.22    4146778.47        0.00002                    575458.22
4146778.47        0.00002
         575488.22    4146778.47        0.00002                    575518.22
4146778.47        0.00001
         575548.22    4146778.47        0.00001                    575578.22
4146778.47        0.00001
         575608.22    4146778.47        0.00001                    575638.22
4146778.47        0.00001
         575188.22    4146808.47        0.00001                    575368.22
4146808.47        0.00003
         575398.22    4146808.47        0.00002                    575428.22
4146808.47        0.00002
         575458.22    4146808.47        0.00001                    575488.22
4146808.47        0.00001
         575518.22    4146808.47        0.00001                    575548.22
4146808.47        0.00001
         575578.22    4146808.47        0.00001                    575608.22
4146808.47        0.00001
         575638.22    4146808.47        0.00001
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
575188.22	4146358.47	0.00069	(09011217)	575218.22	4146358.47	0.00057	(11112020)
575248.22	4146358.47	0.00077	(13010109)	575278.22	4146358.47	0.00075	(11110207)
575308.22	4146358.47	0.00085	(12122908)	575338.22	4146358.47	0.00089	(11010221)
575368.22	4146358.47	0.00075	(11031218)	575398.22	4146358.47	0.00092	(11110117)
575428.22	4146358.47	0.00095	(11113019)	575458.22	4146358.47	0.00093	(11072719)
575488.22	4146358.47	0.00093	(11092918)	575518.22	4146358.47	0.00090	(13070220)
575548.22	4146358.47	0.00089	(13071320)	575578.22	4146358.47	0.00085	(12042819)
575608.22	4146358.47	0.00081	(13080520)	575638.22	4146358.47	0.00079	(09021117)
575188.22	4146388.47	0.00064	(09011217)	575218.22	4146388.47	0.00076	(09011217)
575248.22	4146388.47	0.00056	(09011217)	575278.22	4146388.47	0.00084	(11110207)
575308.22	4146388.47	0.00087	(11110206)	575338.22	4146388.47	0.00088	(11010221)
575368.22	4146388.47	0.00078	(11010221)	575398.22	4146388.47	0.00097	(12010717)
575428.22	4146388.47	0.00103	(11120107)	575458.22	4146388.47	0.00104	(11060919)

575488.22 4146388.47 0.00104 (11092918) 575518.22 4146388.47 0.00102 (13080319)
575548.22 4146388.47 0.00097 (13050419) 575578.22 4146388.47 0.00092 (12092318)
575608.22 4146388.47 0.00088 (13081219) 575638.22 4146388.47 0.00083 (12062820)
575188.22 4146418.47 0.00060 (11010318) 575218.22 4146418.47 0.00066 (09011217)
575248.22 4146418.47 0.00083 (09011217) 575278.22 4146418.47 0.00060 (12122907)
575308.22 4146418.47 0.00092 (11110207) 575338.22 4146418.47 0.00100 (12122908)
575368.22 4146418.47 0.00101 (11010221) 575398.22 4146418.47 0.00098 (12010717)
575428.22 4146418.47 0.00108 (11120107) 575458.22 4146418.47 0.00114 (11060919)
575488.22 4146418.47 0.00116 (11072919) 575518.22 4146418.47 0.00113 (11072619)
575548.22 4146418.47 0.00107 (10093018) 575578.22 4146418.47 0.00100 (10103117)
575608.22 4146418.47 0.00094 (11050620) 575638.22 4146418.47 0.00087 (13031718)
575188.22 4146448.47 0.00068 (09012708) 575218.22 4146448.47 0.00055 (09012708)
575248.22 4146448.47 0.00070 (12122907) 575278.22 4146448.47 0.00098 (12122907)
575308.22 4146448.47 0.00071 (11110207) 575338.22 4146448.47 0.00087 (11110207)
575368.22 4146448.47 0.00097 (11010221) 575398.22 4146448.47 0.00080 (11101310)
575428.22 4146448.47 0.00105 (11120107) 575458.22 4146448.47 0.00127 (11070820)
575488.22 4146448.47 0.00126 (13040319) 575518.22 4146448.47 0.00122 (12030518)
575548.22 4146448.47 0.00118 (11092318) 575578.22 4146448.47 0.00108 (12060619)
575608.22 4146448.47 0.00101 (12052019) 575638.22 4146448.47 0.00094 (11091318)
575188.22 4146478.47 0.00076 (09012708) 575218.22 4146478.47 0.00084 (09012708)
575248.22 4146478.47 0.00075 (09012708) 575278.22 4146478.47 0.00074 (12122907)
575308.22 4146478.47 0.00116 (12122907) 575338.22 4146478.47 0.00078 (11110207)
575368.22 4146478.47 0.00094 (12122908) 575398.22 4146478.47 0.00092 (10092711)
575428.22 4146478.47 0.00099 (11062008) 575458.22 4146478.47 0.00143 (11120118)

575488.22 4146478.47 0.00138 (11091718) 575518.22 4146478.47 0.00135 (11080719)
575548.22 4146478.47 0.00126 (10072119) 575578.22 4146478.47 0.00118 (13041419)
575608.22 4146478.47 0.00110 (10031318) 575638.22 4146478.47 0.00100 (13092518)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
575188.22	4146508.47	0.00058	(12122817)	575218.22	4146508.47	0.00073	(09012708)
575248.22	4146508.47	0.00095	(09012708)	575278.22	4146508.47	0.00097	(09012708)
575308.22	4146508.47	0.00082	(10101210)	575338.22	4146508.47	0.00132	(12122907)
575368.22	4146508.47	0.00091	(11040111)	575398.22	4146508.47	0.00102	(13060809)
575428.22	4146508.47	0.00108	(12090309)	575458.22	4146508.47	0.00143	(11120118)
575488.22	4146508.47	0.00141	(13102318)	575518.22	4146508.47	0.00135	(10072119)
575548.22	4146508.47	0.00133	(11061119)	575578.22	4146508.47	0.00132	(12052219)
575188.22	4146538.47	0.00076	(13120907)	575218.22	4146538.47	0.00070	(13120907)
575248.22	4146538.47	0.00055	(12011812)	575278.22	4146538.47	0.00085	(09012708)
575308.22	4146538.47	0.00109	(09012708)	575338.22	4146538.47	0.00099	(10101210)

575368.22 4146538.47 0.00120 (12122907) 575398.22 4146538.47 0.00098 (11040111)
575428.22 4146538.47 0.00105 (13062909) 575458.22 4146538.47 0.00102 (10111611)
575488.22 4146538.47 0.00105 (12011412) 575518.22 4146538.47 0.00113 (12060619)
575548.22 4146538.47 0.00139 (12052219) 575578.22 4146538.47 0.00134 (13040907)
575188.22 4146568.47 0.00086 (13120908) 575218.22 4146568.47 0.00094 (13120908)
575248.22 4146568.47 0.00101 (13120907) 575278.22 4146568.47 0.00101 (13120907)
575308.22 4146568.47 0.00079 (13120907) 575338.22 4146568.47 0.00091 (11120510)
575368.22 4146568.47 0.00099 (12112310) 575398.22 4146568.47 0.00090 (12110610)
575428.22 4146568.47 0.00087 (11101410) 575458.22 4146568.47 0.00059 (09010411)
575488.22 4146568.47 0.00086 (13122812) 575518.22 4146568.47 0.00139 (12041719)
575548.22 4146568.47 0.00165 (11052919) 575188.22 4146598.47 0.00081 (09021518)
575218.22 4146598.47 0.00084 (09021518) 575248.22 4146598.47 0.00087 (13120908)
575278.22 4146598.47 0.00104 (13120908) 575308.22 4146598.47 0.00117 (13120908)
575338.22 4146598.47 0.00114 (13120908) 575368.22 4146598.47 0.00099 (11012113)
575398.22 4146598.47 0.00059 (12062709) 575428.22 4146598.47 0.00017 (13122111)
575188.22 4146628.47 0.00061 (11093020) 575218.22 4146628.47 0.00064 (12011909)
575248.22 4146628.47 0.00066 (12011909) 575278.22 4146628.47 0.00069 (11122012)
575308.22 4146628.47 0.00080 (13010712) 575338.22 4146628.47 0.00092 (11040909)
575368.22 4146628.47 0.00093 (11040909) 575398.22 4146628.47 0.00057 (13121111)
575428.22 4146628.47 0.00003 (13122011) 575638.22 4146628.47 0.00105 (13010919)
575188.22 4146658.47 0.00084 (12122108) 575218.22 4146658.47 0.00094 (12122108)
575248.22 4146658.47 0.00102 (12122108) 575278.22 4146658.47 0.00101 (12122108)
575308.22 4146658.47 0.00083 (12122108) 575338.22 4146658.47 0.00093 (12031406)
575368.22 4146658.47 0.00126 (12031406) 575398.22 4146658.47 0.00084 (13020111)

575578.22 4146658.47 0.00141 (10033018) 575608.22 4146658.47 0.00120 (12042619)
575638.22 4146658.47 0.00100 (12050320) 575188.22 4146688.47 0.00080 (10121908)
575218.22 4146688.47 0.00083 (10121908) 575248.22 4146688.47 0.00087 (10110921)
575278.22 4146688.47 0.00100 (12031406) 575308.22 4146688.47 0.00136 (12031406)
575338.22 4146688.47 0.00150 (12122017) 575368.22 4146688.47 0.00157 (12122307)
575518.22 4146688.47 0.00181 (11031518) 575548.22 4146688.47 0.00149 (11042019)

*** AERMOD - VERSION 19191 *** *** Woodland Operations - Pump Station ***
*** AERMET - VERSION 14134 *** *** 10/26/20 ***
20:14:18

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
575578.22	4146688.47	0.00134	(10121917)	575608.22	4146688.47	0.00109	(12012307)
575638.22	4146688.47	0.00099	(12012307)	575188.22	4146718.47	0.00075	(10110921)
575218.22	4146718.47	0.00083	(12020708)	575248.22	4146718.47	0.00100	(10122508)
575278.22	4146718.47	0.00109	(12122017)	575308.22	4146718.47	0.00118	(12122308)
575338.22	4146718.47	0.00136	(12020707)	575458.22	4146718.47	0.00182	(10042706)
575488.22	4146718.47	0.00162	(11022507)	575518.22	4146718.47	0.00154	(12122521)
575548.22	4146718.47	0.00132	(10110808)	575578.22	4146718.47	0.00115	(11042019)

```
       575608.22   4146718.47        0.00103  (11093019)                575638.22
 4146718.47        0.00089  (10121917)
       575188.22   4146748.47        0.00075  (10122508)                575218.22
 4146748.47        0.00083  (10122508)
       575248.22   4146748.47        0.00095  (12122308)                575278.22
 4146748.47        0.00102  (11112317)
       575308.22   4146748.47        0.00117  (12020707)                575458.22
 4146748.47        0.00151  (13050519)
       575488.22   4146748.47        0.00145  (11042020)                575518.22
 4146748.47        0.00131  (10121807)
       575548.22   4146748.47        0.00115  (12122521)                575578.22
 4146748.47        0.00100  (10110808)
       575608.22   4146748.47        0.00094  (12022718)                575638.22
 4146748.47        0.00083  (13082920)
       575188.22   4146778.47        0.00073  (12112018)                575218.22
 4146778.47        0.00078  (11112319)
       575248.22   4146778.47        0.00087  (11112318)                575398.22
 4146778.47        0.00133  (12031318)
       575428.22   4146778.47        0.00136  (11010209)                575458.22
 4146778.47        0.00126  (10122520)
       575488.22   4146778.47        0.00114  (11042020)                575518.22
 4146778.47        0.00110  (10121807)
       575548.22   4146778.47        0.00102  (12120207)                575578.22
 4146778.47        0.00087  (10112019)
       575608.22   4146778.47        0.00077  (11051520)                575638.22
 4146778.47        0.00077  (12022718)
       575188.22   4146808.47        0.00070  (11112319)                575368.22
 4146808.47        0.00110  (10122821)
       575398.22   4146808.47        0.00115  (11110518)                575428.22
 4146808.47        0.00117  (12012017)
       575458.22   4146808.47        0.00112  (12042320)                575488.22
 4146808.47        0.00103  (09020818)
       575518.22   4146808.47        0.00093  (12113018)                575548.22
 4146808.47        0.00086  (10121807)
       575578.22   4146808.47        0.00080  (11042406)                575608.22
 4146808.47        0.00067  (10112019)
       575638.22   4146808.47        0.00068  (11051520)

 *** AERMOD - VERSION  19191 ***   *** Woodland Operations - Pump Station
                          ***        10/26/20
 *** AERMET - VERSION  14134 ***   ***
                          ***       20:14:18

                                    PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                    *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***
```

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

NETWORK
GROUP ID AVERAGE CONC RECEPTOR (XR, YR,
ZELEV, ZHILL, ZFLAG) OF TYPE GRID-ID
- -
- - - - - - - - - - - - - - - - - -

ALL 1ST HIGHEST VALUE IS 0.00015 AT (575488.22, 4146508.47,
7.74, 7.74, 0.00) DC
2ND HIGHEST VALUE IS 0.00015 AT (575488.22, 4146478.47,
7.70, 7.70, 0.00) DC
3RD HIGHEST VALUE IS 0.00014 AT (575518.22, 4146478.47,
7.43, 7.43, 0.00) DC
4TH HIGHEST VALUE IS 0.00013 AT (575488.22, 4146448.47,
7.57, 7.57, 0.00) DC
5TH HIGHEST VALUE IS 0.00013 AT (575518.22, 4146448.47,
7.45, 7.45, 0.00) DC
6TH HIGHEST VALUE IS 0.00013 AT (575458.22, 4146478.47,
7.91, 7.91, 0.00) DC
7TH HIGHEST VALUE IS 0.00013 AT (575458.22, 4146508.47,
7.83, 7.83, 0.00) DC
8TH HIGHEST VALUE IS 0.00012 AT (575518.22, 4146508.47,
7.32, 7.32, 0.00) DC
9TH HIGHEST VALUE IS 0.00012 AT (575518.22, 4146418.47,
8.06, 8.06, 0.00) DC
10TH HIGHEST VALUE IS 0.00012 AT (575488.22, 4146418.47,
8.01, 8.01, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
↑ *** AERMOD - VERSION 19191 *** *** Woodland Operations - Pump Station
*** 10/26/20
*** AERMET - VERSION 14134 *** ***
*** 20:14:18

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE SUMMARY OF HIGHEST 1-HR
RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

GROUP ID	AVERAGE	NETWORK CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)
	OF TYPE	GRID-ID		
ALL	HIGH	1ST HIGH VALUE IS	0.00182 ON 10042706:	AT (575458.22, 4146718.47, 8.25, 8.25, 0.00)
	DC			

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 1 Warning Message(s)
A Total of 30785 Informational Message(s)

A Total of 43872 Hours Were Processed

A Total of 1576 Calm Hours Identified

A Total of 29209 Missing Hours Identified (66.58 Percent)

CAUTION!: Number of Missing Hours Exceeds 10 Percent of Total!
Data May Not Be Acceptable for Regulatory Applications.
See Section 5.3.2 of "Meteorological Monitoring Guidance
for Regulatory Modeling Applications" (EPA-454/R-99-005).

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
MX W481 43873 MAIN: Data Remaining After End of Year. Number of Hours= 48

****
*** AERMOD Finishes Successfully ***
****

*HARP - HRACalc v19044 10/26/2020 8:17:05 PM - Cancer Risk - Input File: D:\Work\Woodland Park East Palo Alto\RAST\PS_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	WATER_RISK	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK
1			9901	DieselExhPM	0.00012	1.04E-07	30YrCancerHighEnd_Inh_FAH16to70	*	1.04E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2			107028	Acrolein	0	0.00E+00	30YrCancerHighEnd_Inh_FAH16to70	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CHICKEN_RISK	EGG_RISK	1ST_DRIVER	2ND_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 10/26/2020 8:17:05 PM - Acute Risk - Input File: D:\Work\Woodland Park East Palo Alto\RAST\PS_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
1			9901	DieselExhPM	0	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2			107028	Acrolein	0.00182	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.28E-04	0.00E+00	7.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 10/26/2020 8:17:05 PM - Chronic Risk - Input File: D:\Work\Woodland Park East Palo Alto\RAST\PS_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_DOSE	MMILK_DOSE
1			9901	DieselExhPM	0.00012	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*	1.20E-04	0.00E+00	0.00E+00	0.00E+00
2			107028	Acrolein	0	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00

WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE	1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

Appendix C

Preliminary Historic Assessment Memorandum

MEMORANDUM

DATE	May 27, 2020	PROJECT NO.	20048
TO	Tad Stern	PROJECT	2032, 2036, 2040, 2043 Euclid Ave. East Palo Alto – Preliminary Historic Assessment
OF	Kimley-Horn 824 Bay Avenue, Suite 10 Capitola, CA 95010	FROM	Hannah Simonson, Architectural Historian/ Cultural Resources Planner
CC	Ruth Todd, Principal, Page & Turnbull	VIA	Email

REGARDING: **2032, 2036, 2040, 2043 Euclid Avenue, East Palo Alto – Preliminary Historic Assessment Memorandum**

INTRODUCTION

This Preliminary Historic Assessment Memorandum has been prepared by Page & Turnbull at the request of Kimley-Horn for four properties in the City of East Palo Alto:

- 2032 Euclid Avenue (APN 063-282-030), built in 1938
- 2036 Euclid Avenue (APN 063-282-040), built in 1922
- 2040 Euclid Avenue (APN 063-282-050), built in 1928
- 2043 Euclid Avenue (APN 063-281-100), built in 1928

The property owner of the four properties, Woodland Park Communities (Sand Hill Property Company), is planning a "Euclid Improvements" project that could involve demolition of the subject properties for the purpose of constructing new apartment units.[1] The four properties are located in the University Circle neighborhood in the Westside area of East Palo Alto **(Figure 1 and Figure 2)**. The Westside area of East Palo Alto is located to the south of the US-101 Highway. Three of the properties—2032, 2036, and 2040 Euclid Avenue—are located on the east side of Euclid Avenue, between West Bayshore Road and O'Connor Street. The fourth property—2043 Euclid Avenue -- is located at the southwest corner of E. Okeefe Street and Euclid Avenue, on the west side of Euclid Avenue from the other three properties. All four properties were constructed as single-family residences; however, additional units in detached buildings were later built at the rear of 2036 and 2040 Euclid Avenue. 2043 Euclid Avenue is now used as a leasing office by Woodland Park

[1] Woodland Park Communities, "Pre-Application for Euclid Improvements" submitted to City of East Palo Alto January 11, 2019.

Communities. None of the four properties are currently listed on any national, state, or local register of historic resources.

Methodology

This memorandum provides a summary of the current historic status of 2032, 2036, 2040, and 2043 Euclid Avenue, brief building descriptions, a summary of the construction chronology of each property, and a brief historic neighborhood context. This memorandum provides a preliminary historic assessment of each property's eligibility for individual listing in the California Register of Historic Resources based on Page & Turnbull's professional opinion. Preparation of full Historic Resource Evaluation (HRE) report or preparation of California Department of Parks and Recreation (DPR) 523 survey forms for the purposes of compliance with the California Environmental Quality Act (CEQA) are outside the scope of this memorandum.

Page & Turnbull consulted historic aerial photographs, as well as the "City of East Palo Alto Historic Resources Inventory Report" (February 1994). Additional historic research on the subject properties included research using San Mateo County Office of the Assessor online portals, as well as online repositories such as Ancestry.com, Newspapers.com, California Digital Newspaper Collection, David Rumsey Map Collection, and the UC Santa Barbara Library Aerial Photography Collection. Sanborn Map Company fire insurance maps are not available for the subject properties. Local repositories including the East Palo Alto Library, East Palo Alto Historical & Agricultural Society, Palo Alto Historical Association, and San Mateo County History Museum, were not open or accessible due to COVD-19 Shelter In Place orders. Page & Turnbull submitted an electronic public records request to the City of East Palo Alto on April 29, 2020 for building permits on file for the four subject properties; however, the records were not provided by the time of completion of this memorandum.

Photographs in this report were taken by Page & Turnbull during a site visit from the public right-of-way on May 7, 2020, unless otherwise noted.



Figure 1. Aerial photograph of subject properties at 2032, 2036, 2040, and 2043 Euclid Avenue. Source: Google Maps, 2020. Edited by Page & Turnbull.

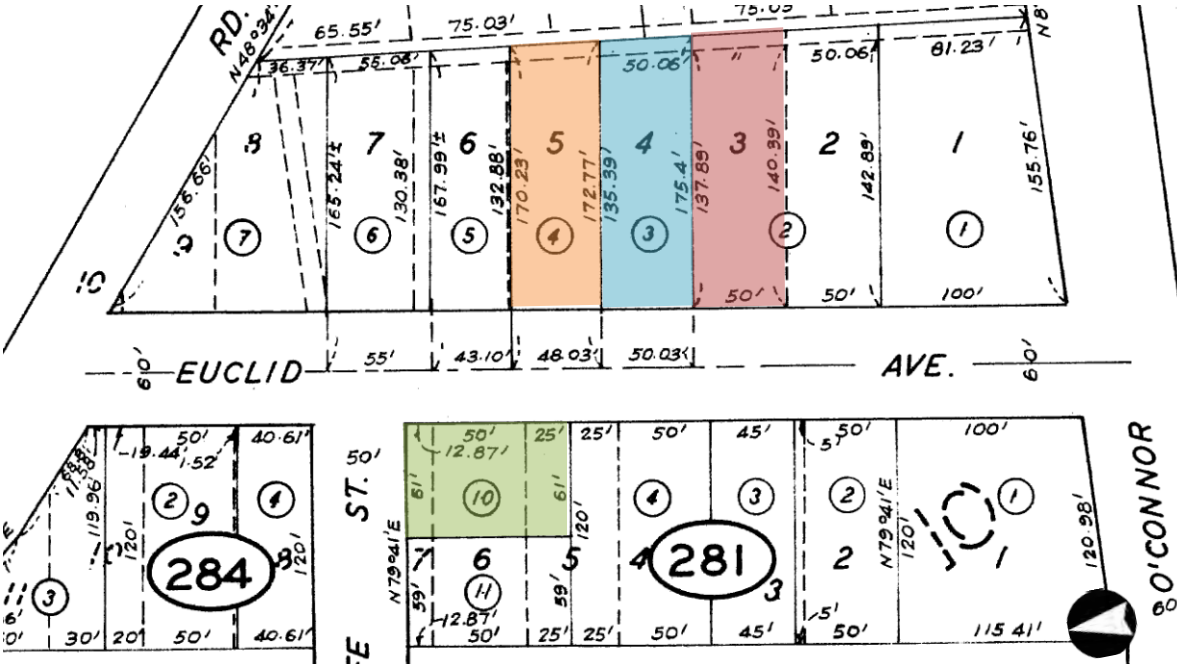


Figure 2. Assessor parcel map of subject properties. 2032 Euclid Avenue is indicated by red shading, 2036 Euclid Avenue by blue shading, 2040 Euclid Avenue by orange shading, and 2043 Euclid Avenue by green shading. Source: San Mateo County Assessor-County Clerk-Recorder. Edited by Page & Turnbull.

EXISTING HISTORIC STATUS

The following section is a summary of the survey ratings and established historic status of 2032 Euclid Avenue, 2036 Euclid Avenue, 2040 Euclid Avenue, and 2043 Euclid Avenue.

National Register of Historic Places

The National Register of Historic Places (National Register) is the nation's most comprehensive inventory of historic resources. The National Register is administered by the National Park Service and includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

None of the subject properties is listed in the National Register of Historic Places individually, or as a part of a historic district.

California Register of Historical Resources

The California Register of Historical Resources (California Register) is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the California Register through a number of methods. State Historical Landmarks and National Register-listed properties are automatically listed in the California Register. Properties can also be nominated to the California Register by local governments, private organizations, or citizens. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register of Historic Places.

None of the subject properties is listed in the California Register of Historical Resources individually, or as a part of a historic district.

California Historical Resource Status Code

Properties listed by, or under review by, the State of California Office of Historic Preservation are assigned a California Historical Resource Status Code (Status Code) between "1" and "7" to establish their historical significance in relation to the National Register of Historic Places (National Register or NR) or California Register of Historical Resources (California Register or CR). Properties with a Status Code of "1" or "2" are either eligible for listing in the California Register or the National Register, or are already listed in one or both of the registers. Properties assigned Status Codes of "3" or "4" appear to be eligible for listing in either register, but normally require more research to support this rating. Properties assigned a Status Code of "5" have typically been determined to be locally significant or to have contextual importance. Properties with a Status Code of "6" are not eligible for listing in either register. Finally, a Status Code of "7" means that the resource either has not been evaluated for the National Register or the California Register, or needs reevaluation.

As of 2012, when the last printed version for San Mateo County was made available, 2032, 2036, and 2040 Euclid Avenue were not listed in the California Historic Resources Information System (CHRIS) database with a Status Code. This means that the properties have not been previously evaluated or survey results have not been submitted to the CHRIS database.

2043 Euclid Avenue is listed in the CHRIS database, and was assigned a Status Code in 1994 of "6Y," meaning "Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or Local Listing."[2]

City of East Palo Alto Local Register of Historic Resources

In the early 1990s, a survey of East Palo Alto was conducted by the San Mateo County Historical Association and San Mateo County Historic Resources Advisory Board with survey coordinators Alan Michelson and Katherine Solomonson.[3] The results of the survey, which identified 52 properties as historic resources, were presented in a report, "City of East Palo Alto Historic Resources Inventory Report" (February 1994). The report also included a historic context for important development themes and architectural styles in East Palo Alto, as well as State of California Department of Parks and Recreation (DPR) survey forms for a number of properties. In January 2015, the East Palo Alto City Council adopted the 37 extant resources in the "City of East Palo Alto Historic Resources Report" (February 1994) as the City of East Palo Alto's "Local Register of Historic Resources."[4] East Palo Alto does not have a historic preservation ordinance that outlines eligibility requirements for properties that might be added to the local register in the future.

None of the subject properties were surveyed or identified as historic resources in the "City of East Palo Alto Historic Resources Inventory Report," and as such, none of the subject properties are currently listed on the East Palo Alto Historic Resources Inventory.

BRIEF PROPERTY DESCRIPTIONS

2032 Euclid Avenue

2023 Euclid Avenue, built in 1938, is a one-story, L-plan residence in a Vernacular style with a detached garage that is connected by a breezeway **(Figure 3)**. The wood frame building has double ogee wood siding, except at the front, 1955 addition which has wider profile rustic wood siding. The garage also has rustic wood siding. Both the residence and the garage have gabled roofs clad in asphalt shingles, with scalloped edge wood cladding in the gable ends.

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[2] California Office of Historic Preservation, *Technical Assistance Bulletin No. 8: User's Guide to the California Historical Resource Status Codes & Historic Resources Inventory Directory* (Sacramento: California Office of State Publishing, November 2004), 5.

[3] San Mateo County Historical Association and San Mateo County Historical Resources Advisory Board, "City of East Palo Alto Historic Resources Inventory Report" (February 1994); and City of East Palo Alto, "Chapter 8: Parks, Open Space and Conservation" in *Vista 2035: East Palo Alto General Plan* (adopted October 4, 2016, amended March 2017).

[4]. See City of Palo Alto City Council Agenda, January 6, 2015; and Sue Dremann, "East Palo Alto adopts inventory of historic places," Palo Alto Weekly, January 8, 2015, accessed online April 27, 2020, https://www.paloaltoonline.com/news/2015/01/08/east-palo-alto-adopts-inventory-of-historic-places.

The primary (west) façade of the residence has a tripartite window with wood shutters and a central replacement sliding vinyl sash window with simulated divided lites. The primary entrance is at the addition portion of the north façade, under the breezeway spanning the main residence and the detached garage, and features a wood slab door. The north (side) façade of the residence has nearly full-height windows. The garage has a paired, swinging wood doors at the primary (west) façade.



Figure 3. 2032 Euclid Avenue, looking southeast. The breezeway is visible between the main residence and the detached garage.

2036 Euclid Avenue

2036 Euclid Avenue, built in 1922 in a Vernacular style, is a one-story residence **(Figure 4)**. The residence is clad in stucco and has a brick base at the primary (west) façade. The building has a hipped roof clad in asphalt shingles with a gable-roof projecting addition constructed in 1949 at the front. The primary entrance to the house is recessed within the southwest corner of the projecting front addition. The main entry door is a wood slab door. A large picture window is located at the projecting front addition and a multi-lite window is located at the original portion of the house. The north (side) façade has hung, fixed, and casement windows, as well as an exterior brick chimney located toward the west end of the north façade.

A two-story, L-plan, hipped-roof detached secondary residential building is located at the rear of the lot **(Figure 5)**. It was constructed in 1948 with multiple residential units.



Figure 4. Main residence at 2036 Euclid Avenue, looking east.



Figure 5. Detached two-story secondary residential building at the rear of the 2036 Euclid Avenue property, looking east.

2040 Euclid Avenue

2040 Euclid Avenue features a one-story single-family residence built in 1928 with a rectangular plan **(Figure 6)**. The wood frame building has a front gable roof and a partial-width entry porch at the north portion of the primary (west) façade, also with a gable roof. The gable roof forms have over-hanging eaves and simple wood brackets. The building, which was constructed in a modest expression of the Craftsman style, has been reclad with stucco siding. The main entrance is a partially glazed panel door in the entry porch. All windows appear to be replacement vinyl sliding windows with simulated divided lights. An interior brick chimney is located near the ridge of the roof toward the rear of the house. A detached, single-unit, two-story secondary residential building was constructed in 1999 toward the rear of the lot. It has an attached garage, stucco siding, front gable roof and recessed second-story balconies **(Figure 7)**.



Figure 6. Main residence at 2040 Euclid Avenue, looking east.



Figure 7. 2040 Euclid Avenue main residence and detached rear secondary residence, looking northeast.

2043 Euclid Avenue

2043 Euclid Avenue is a two-story Tudor Revival style building, constructed in 1928 as a single-family residence **(Figure 8).** It was later converted to multiple units and is now used as a leasing office by Woodland Park Communities. The wood frame building has stucco cladding and a steeply pitched, side gable roof with asphalt shingles. Typical windows are six-over-one, double-hung wood windows with ogee lugs.

Two large, prominent gabled dormers are located at either end of the primary (east) façade and feature decorative half-timbering and wood brackets below, where they project out slightly from the main façade. Each dormer has a single-lite wood casement window. A small dormer is located at the center of the primary façade and also has decorative half-timbering and a three-lite wood awning window. The primary entrance is centered within a recessed one-story porch at the east façade; the rectangular opening for the porch is unornamented. The primary door is a wood slab door flanked by typical windows. Secondary doors are located at the north- and south-facing sides of the porch, and may have previously led to upstairs units. Paired typical windows are located at either side of the recessed entry porch, and both have wood planter boxes.

Several typical windows of various sizes are located at the north, south, and rear (west) facades. A non-original exterior wood staircase leads to the second floor at the south façade. Projecting bays with shed roofs are located at either end of the rear (west) façade **(Figure 9)**. The north rear bay is two-stories and has typical windows at the first story and casement windows at the second story. The south rear bay appears to be one story (and may contain a staircase) with a steeper shed roof that extends from the main roof and has a slab door at the rear. A wooden accessible ramp leads to a secondary entrance at the first floor of the rear façade, between the two projecting bays. An exterior stucco-clad chimney is located at the center of the rear façade.

A paved parking area is located behind the main building and is shared with an adjacent property at 420 E. Okeefe Street (APN 063-281-110) **(Figure 10)**. The building at 420 E. Okeefe Street was originally constructed as a three-car garage with a residential unit associated with 2043 Euclid Avenue, but has since been legally divided as a separate parcel and is not part of this memorandum.



Figure 8. Oblique view of 2043 Euclid Avenue, looking southwest.



Figure 9. Rear of 2043 Euclid Avenue, looking southeast.



Figure 10. 420 E. Okeefe Street, the property west of 2043 Euclid Avenue, looking south.

BRIEF HISTORIC CONTEXT

East Palo Alto, originally named Ravenswood, was part of unincorporated San Mateo County until the city incorporated in 1983. The following brief historic context of East Palo Alto is from *Vista 2035: East Palo Alto General Plan*:

Native Inhabitants
The area that is now East Palo Alto has supported human settlement for over two millennia. Various tribes of Costanoan Native Americans – also known as the "Ohlone" – were the first known human inhabitants in the San Francisco Bay Area, benefiting from its rich resources and temperate climate. The Ohlone tribe that made its home in the area of modern-day East Palo Alto is known as the Puichon.

First European Settlement
The first European settlers in the area were Spanish ranchers and Gold Rush-enriched land speculators. In 1849, a wharf was built at the foot of Bay Road – then just a dirt cart road – and the community of "Ravenswood" grew around it. The community was primarily agricultural in nature but there was also some shipping activity through the wharf, largely related to the bricks produced at a local factory. The area remained generally in agricultural use through the rest of the 19th century. Eventually the wharf changed ownership and became known as Cooley Landing, a name that still survives today in East Palo Alto's Cooley Landing open space area.

Early 20th Century Agriculture and Community Development
The year 1916 included the initiation of Runnymede, the Weeks Poultry Colony. Runnymede was intended as a utopian alternative to industrialized urban living, and was a community of relatively self-sufficient small farmers. The Runnymede colony initially prospered with a population of about 1,200 by the early 1920s, but then began to collapse after Weeks sold his demonstration farm and left Runnymede to start a second colony near Los Angeles. Disillusioned by the substantial work required to operate a small poultry farm and amid rising property values and contaminated well water supplies, many colonists began selling off their properties. After the poultry farms closed, floriculture predominated in East Palo Alto from the 1930s through the 1950s, following a trend that had swept all of San Mateo County. Locally-grown chrysanthemums, violets, carnations, and lilies were transported to markets throughout the country on refrigerated "flower trains." With construction of the Highway 101 in 1932, businesses catering to automobile travelers opened along the highway and some of East Palo Alto's major streets. By 1939, the community had 11 service stations, most located immediately off the highway. University Avenue became the community's primary commercial corridor, attracting a variety of cafes, drive-ins, and restaurants. A portion of University Avenue near University Circle gained the nickname "Whiskey Gulch" because of its many bars and liquor stores – a result of Palo Alto zoning laws that restricted alcohol sales within two miles of Stanford University.

Industrialization

Industrial development, mostly associated with the area's agriculture, was located on large lots at the north end of town that was served by a railroad spur of the Dumbarton Cutoff. A few businesses opened along this Southern Pacific spur line in the 1910s and 1920s, including a cutlery company, chemical plant, and lubrication products company. Heavy industry expanded in the area after World War II, particularly in the northern part of the community. A helicopter manufacturing plant opened on Willow Road, while the Peninsula Transit Lines had a bus garage and maintenance facility near the end of Bay Road, and there was a steel factory located near the intersection of Pulgas Avenue and Weeks Street. Northern portions of East Palo Alto remained primarily industrial in use throughout the twentieth century.

Residential and Post-War Construction

The City's evolution into primarily a residential suburban community began as Runnymede declined, and escalated after World War II. Housing tract developers acquired larger tracts from nearby farms along with some of the colony lots and began subdividing them into much smaller, densely populated residential parcels. Buyers included year-round residents, as well as San Franciscans seeking a vacation or summer home in East Palo Alto's warmer climate. Along with the development of more traditional housing tracts, poultry farms in Runnymede were replaced with residential developments.

Highway Construction and Impacts

In addition to its residential core, East Palo Alto has been defined by its proximity to Highway 101 (the Bayshore Highway) since the highway's construction in 1932. Despite linking the community of East Palo Alto to major cities throughout the San Francisco Bay Area, Highway 101 created significant traffic, health and socio-economic problems for East Palo Alto. Within the first few years after it opened, several people were killed or injured in traffic collisions while attempting to cross the then four-lane highway. Residents subsequently fought to lower the speed limit, build pedestrian underpasses, and add traffic signals. While their efforts were initially successful, the widening of Highway 101 into a six-lane divided freeway in the 1950s undid their work. The only crossings over the wider freeway were University Avenue and Willow Road, which remain today. Highway 101 also created a physical border that contributed to an emerging economic disparity between Palo Alto and East Palo Alto in the mid-twentieth century.

City Incorporation

East Palo Alto was incorporated in 1983, and is one of the most recently formed cities in the entire Bay Area. Prior to 1983, it was part of unincorporated San Mateo County, as were other large tracts of land that were annexed by Menlo Park and Palo Alto from the late 1940s to the early 1960s. Efforts for City incorporation began as early as the 1920s, followed by more serious incorporation efforts in the 1960s. These

> efforts remained unsuccessful until a vote was held on June 7, 1983 and the incorporation initiative finally passed by a fifteen vote margin. Following the contentious decision, lawsuits were waged in court from 1983-1987. In 1987, the United States Supreme Court refused to hear an appeal of the California Supreme Court's decision to affirm incorporation issued in 1986, thereby ending the legal battle over incorporation and confirming passage of the incorporation ballot measure. The successful campaign for East Palo Alto's incorporation was a major event in the life of the East Palo Alto community, and one that many of the City's residents and leaders still look back to with pride and inspiration. In many ways, the incorporation effort was a movement for social and fiscal self-determination, following years of marginalization and neglect by outside powers. During and just before this time, the City endured a tremendous demographic shift as African Americans became the ethnic majority in the City (later, at the end of the millennium, the City would experience another ethnic shift, with Latinos becoming the majority population). The campaign for incorporation was led by an ethnically diverse coalition of residents who believed their future and their children's future would be brighter if they were in charge of it. As East Palo Alto continues to evolve, it can look to its founding as an inspiring and inclusive exercise in democracy, and an important milestone in its history.[5]

The commercial district known as "Whiskey Gulch" in the Westside of East Palo Alto was demolished in 2000 and redeveloped over the course of the next several years with a hotel and corporate office complex, collectively known as "University Circle."[6] The subject properties are about two blocks west of the University Circle development which is located between US-101, and Manhattan, Woodland, and University avenues.

SITE DEVELOPMENT HISTORY

All four of the subject properties are located on blocks that were originally subdivided in 1907 by the Ravenswood Investment Company for the first part of the Woodland Place subdivision in what was then known as Ravenswood, but would later become East Palo Alto **(Figure 11)**. Unlike the exceptionally long (deep) lots that characterized Runnymede, the nearby utopian agricultural-residential community also known as Weeks Poultry Colony, Woodland Place had more typical subdivision lots. In 1932, US-101 Highway was constructed just north of the subject properties, cutting through the Woodland Place Block 9 between O'Connor and Donohoe streets at an angle, and separating what would be known as the Westside area from the rest of East Palo Alto **(Figure 12 and Figure 13)**. By the 1940s, the area remained only partially developed and during the post-World War II population boom in the Bay Area, the area was quickly infilled with new residential development, including new single-family homes and larger multi-family apartment buildings. Additionally, the many of the more agricultural properties in the Westside, especially along E. Okeefe Street, were redeveloped with multi-family residential buildings.

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[5] City of East Palo Alto, "Brief History of East Palo Alto" in *Vista 2035: East Palo Alto General Plan* (adopted October 4, 2016, amended March 2017), 2-4 to 2-5.

[6] Michael B. Kahan, "Reading Whiskey Gulch: The Meanings of Space and Urban Redevelopment in East Palo Alto, California" in *Occasion* vol 8 (August 31, 2015), 17-18. Accessed April 27, 2020, https://arcade.stanford.edu/occasion/reading-whiskey-gulch-meanings-space-and-urban-redevelopment-east-palo-alto.

In 2011, all four properties were purchased by the owners of Woodland Park Communities and are now managed by that company along with several nearby apartment buildings. All are rental units, except for 2043 Euclid Avenue, which is used as a leasing office.[7] Brief summaries of the site development history and construction chronology for each of the four properties is provided in this section, based on available information gathered in historic aerial photographs and Appraisal Reports on file at the San Mateo County Office of the Assessor, which include some construction chronology and building permit information.



Figure 11. Detail of Map of Woodland Place Subdivision No. One of Ravenswood, San Mateo County, California, 1907. Approximate locations of the subject properties are shaded in orange. Source: San Mateo County Assessor-County Clerk-Recorder. Edited by Page & Turnbull.

[7] Deed history accessed online via the County of San Mateo Assessor-County Clerk-Recorder's Office Grantor-Grantee Index, April 28, 2020, https://www.smcacre.org/search-grantee-grantor-info.

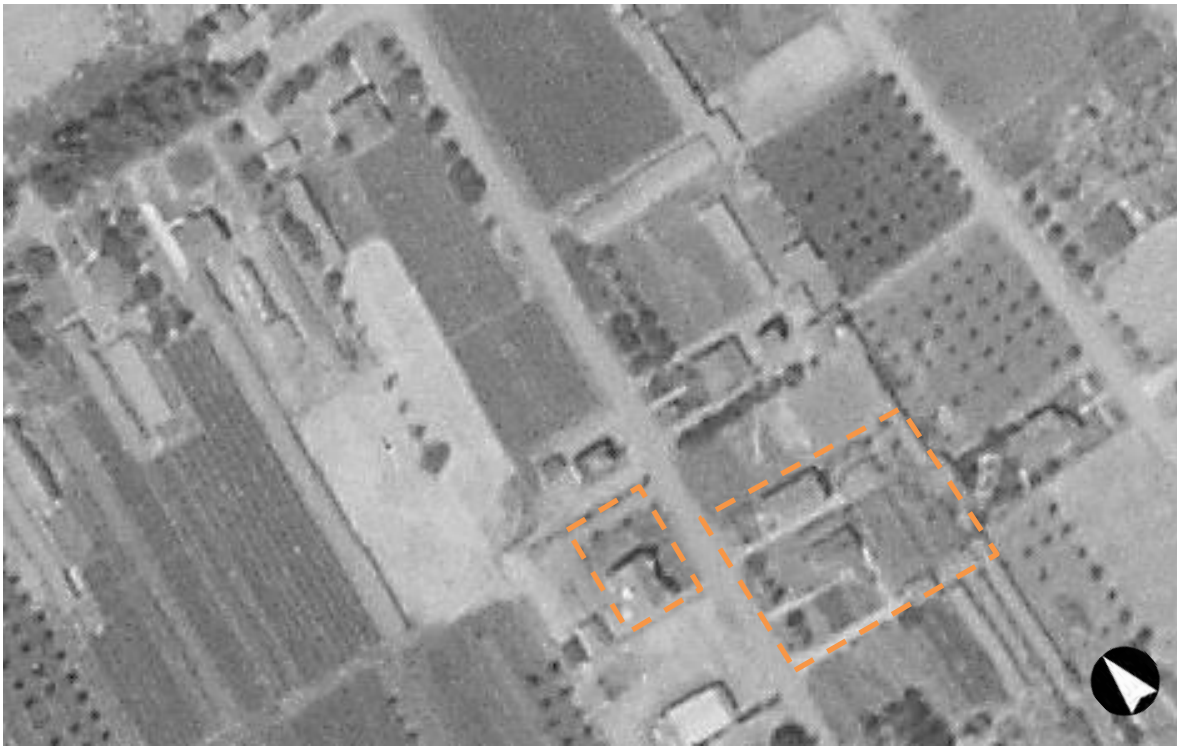


Figure 12. Detail of aerial photograph of East Palo Alto, 1930. Approximate location of the three subject properties shown outlined in orange. 2032 Euclid Avenue (bottom right) had not yet been constructed at this time. Long, narrow agricultural lots are visible to the west (left), outside of the Woodland Place subdivision. Source: Flight C-1025, Frame H-6, June 1930, Fairchild Aerial Surveys, UC Santa Barbara Library FrameFinder.



Figure 13. Detail of aerial photograph of East Palo Alto, 1941. Approximate location of the four subject properties shown outlined in orange. US-101 is visible at the top. Source: Flight C-7065, Frame 39, April 17, 1941, Fairchild Aerial Surveys, UC Santa Barbara Library FrameFinder.



Figure 14. Detail of aerial photograph of East Palo Alto, 1963. Approximate location of the four subject properties shown outlined in orange. Source: Flight CAS-SM, Frame 2-163, July 8, 1963, Cartwright Aerial Surveys, UC Santa Barbara Library FrameFinder.

2032 Euclid Avenue

2032 Euclid Avenue was built as a one-story, single-family residence in 1938 by an unknown builder **(Figure 13)**. The L-plan building was constructed in a Vernacular style set back from Euclid Avenue toward the middle of the lot. An Appraisal Report notes that the "original area [was] built from former garage & goat shed."[8] The first known occupant of the residence was Zelma Maree Brown, a store clerk.[9] In 1949, a small one-room addition, a porch, and projecting closet room addition were all constructed at the rear (east) façade of the residence. A small 60-square-foot shed was also constructed in 1949 in the rear yard, but does not appear to be extent. A 14' by 24' garage with a metal overhead garage door, rustic wood siding, shingle roofing, and a concrete floor was constructed in 1954. In 1955, the residence was extended at the front (west) with an addition that is the full width of the wing of the L-plan building; this addition is distinguished by a wider profile rustic wood siding, whereas the original residence has double ogee wood siding. A breezeway roof was constructed spanning the garage and the front addition of the residence, likely in 1955.

It appears that sometime after the 1950s, the rear additions and porch have been fully enclosed with a roof that extends the full length of the rear façade. Other alterations include replacement windows. The scalloped edge wood cladding in the gable end of the residence and garage, as well as the wood shutters at the east façade of the residence, evoke the Minimal Traditional style, but are not original to the property as these features are located at 1950s additions.

2036 Euclid Avenue

2036 Euclid Avenue was built in 1922 by an unknown builder as a one-story, single-family residence with a Vernacular style **(Figure 12)**. Originally, the residence had a rectangular plan with a projecting bay along the south (side) façade and a cross-hipped roof. It was set far back from Euclid Avenue. The first known occupant of the residence is Anna M. Boge.[10] In 1936, $400 in alterations were permitted, but the nature of these alterations is unknown, and in 1939, $1,000 in fire damage repair was conducted. In 1947, a rear addition with a hipped roof was constructed, projecting slightly north of the original residence. In 1949, the residence was extended at the front with a gable roof addition with a recessed covered entry porch. According to an Appraisal Report, a carport was constructed behind the residence in the 1950s with a flat tar and gravel roof and partially enclosed with rustic wood siding; the carport may have replaced a garage or other rear structure which appears in a 1941 aerial photograph **(Figure 13)**. Other alterations to the original residence include the replacement of the original windows. It is possible that the building originally had wood siding, more similar to the adjacent residence at 2032 Euclid Avenue, but had stucco siding by the time of an Appraisal Report dated to 1949. Also according to an Appraisal Report, in 1948, a one-unit "apartment" was constructed at the rear of the lot, and was expanded in 1952 to include another unit

[8] 2032 Euclid Avenue, Appraisal Report, on file at County of San Mateo Office of the Assessor, provided via email on April 27, 2020.
[9] First listing for 2032 Euclid Avenue is in the 1940 Palo Alto City Directory.
[10] Boge is listed at 313 Euclid Avenue in Palo Alto City Directories from 1928 to 1939; the address of the property appears to have been changed circa 1940.

(Figure 14). In the 1960s, the property was assessed as having three units. At an unknown date, the property was altered to include a fourth unit.[11]

2040 Euclid Avenue

2040 Euclid Avenue was constructed in 1928 in a modest expression of the Craftsman style **(Figure 12)**. The long, rectangular house was set back from Euclid Avenue by a small front yard. The first known occupant of the residence is Charles Webster, listed as a carpenter in the 1928 Palo Alto City Directory, and his wife, Minnie; it is possible that Webster built the house, but little information was uncovered about Webster during the course of research. An Appraisal Report from the 1940s, indicates that the wood frame residence was set on a concrete foundation and had rustic wood siding and composition shingle roofing. By this time in the 1940s, there was also a detached garage and small storage shed at the rear of the lot; the original construction dates of these ancillary buildings are not known, but do appear to be present in the 1930 aerial photograph, and they are no longer extant **(Figure 12 and Figure 13)**. At an unknown date, the original residence was reclad with stucco siding and the original windows were replaced with vinyl sash windows with simulated divided lites. In 1999, a detached residential building was constructed at the rear of the lot. The new one-unit building was two stories with an attached garage at the ground floor, stucco cladding and a gable roof.

2043 Euclid Avenue

2043 Euclid Avenue was constructed in 1928 by an unknown builder as a two-story, single-family residence in the Tudor Revival style **(Figure 12)**. The property was not a corner lot at the time, as E. Okeefe Street was not yet platted. The first known occupants of the property were Floyd J Baker, listed as a paint contractor in the 1928 Palo Alto City Directory, and F. E. Lamoreaux, a farmer. The original property extended further back (west) than the current property boundary and included a detached rear garage. Based on an Appraisal Report on file at the San Mateo County Office of the Assessor, in 1949 a three car garage with an apartment unit was constructed on the property; this garage is likely the rear building that is now on a separate legal parcel (420 E. Okeefe Street, APN 063-281-110). By the 1950s, the subject address had three households listed instead of one, as in prior city directories, and the house appears to have been divided into several units. A 1994 permit noted in the Appraisal Report indicates that four units were rehabilitated. Since being purchased by Woodland Park Communities in 2011, the building has been used as a leasing office. Although two projecting bays at the rear of the building appear visible in a 1941 aerial photograph of the building, the pattern of windows and doors appears to have been altered **(Figure 13)**. Other alterations to the building include an exterior wood staircase to the second story on the north façade, and an accessible ramp at the rear. Google Street View imagery of 2043 Euclid Avenue appears to indicate that some alterations have been made to the upper portion of the recessed entry porch **(Figure 15)**.

[11] City of East Palo Alto, "Westside Area Plan" in *Vista 2035: East Palo Alto General Plan* (adopted October 4, 2016, amended March 2017), 11-6.



Figure 15. 2043 Euclid Avenue in July 2007. Source: Google Street View.

Occupant History

The following table lists the known residents at the four subject properties from 1928 (first available directory) through the mid-1970s (approximately 45 years ago), at approximately five year intervals based on available city directories. Professions are included if they were listed in the city directory.

Year	2032 Euclid Ave. Occupant(s)	2036 Euclid Ave. Occupant(s)	2040 Euclid Ave. Occupant(s)	2043 Euclid Ave. Occupant(s)
1928	*Not yet constructed*	Anna M Boge	Charles Webster (carpenter) Minnie Webster	Floyd J Baker (paint contractor) F E Lamoreaux (farmer)
1930	*Not yet constructed*	Anna M Boge	Charles Webster (carpenter) Rear – J M Dolman	Floyd J Baker (paint contractor) F E Lamoreaux (farmer)
1935	*Not yet constructed*	Anna M Boge	Walter Lang Isabelle Lang	Floyd J Baker (carpenter)
1940	Zelma Maree Brown (store clerk)	Leslie E. Sherwood (grocery clerk) Helen L Sherwood (housewife)	Dewey G. Lang (toll collector) Isabel F. Lang	Charles P Allsberry (sheet metal worker) Lillian E Allsberry
1944	Majory Campbell	Elmer D Cole (carpenter)	Dewey G. Lang (toll collector)	Charles P Allsberry (sheet metal worker) Lillian E Allsberry
1950	Z M Brown Doris B Cheney (saleswoman)	Elmer D Cole (building contractor)	Dewey G. Lang (Yellow Cab driver)	Michael F. Zimmerman (plasterer) Thelma S. Zimmerman
1955	Frank W. Brown (operating engineer)	Richard R. Thielemann (student) Jane Thielemann	Dewey G. Lang	Lloyd G. Sloan (real estate) Irene L. Sloan (Fashion By The Yard)

Year	2032 Euclid Ave. Occupant(s)	2036 Euclid Ave. Occupant(s)	2040 Euclid Ave. Occupant(s)	2043 Euclid Ave. Occupant(s)
1959	Frank W. Brown (operating engineer)	Richard Thielemann Rear – Jason D. Hymes	Dewey G. Lang	A - Elmer Zittle B - Beverley Louerude C - Myrell Jones (engineer)
1965	Frank W. Brown (operating engineer)	Ernest Myers Rear – William Minney	Dewey G. Lang	*No Return*
1969	Steven E. Boyd	Ernest Myers Rear – Albert N List (messenger)	*Vacant*	A – James E. McCoy B – *Vacant* C – *Vacant*
1974	Evelyn B. Gilbraith	*Vacant*	Marie Pence	A – Renee Walker B – Robin F. Ranck C – *Vacant*

PRELIMINARY ASSESSMENT

California Register of Historical Resources

The California Register of Historical Resources (California Register) is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the California Register through a number of methods. State Historical Landmarks and National Register-listed properties are automatically listed in the California Register. Properties can also be nominated to the California Register by local governments, private organizations, or citizens. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register of Historic Places.[12]

In order for a property to be eligible for listing in the California Register, it must be found significant under one or more of the following criteria.

- *Criterion 1 (Events)*: Resources that are associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

- *Criterion 2 (Persons)*: Resources that are associated with the lives of persons important to local, California, or national history.

- *Criterion 3 (Architecture)*: Resources that embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master, or possess high artistic values.

[12] California Office of Historic Preservation, *Technical Assistance Bulletin No. 7: How to Nominate a Resource to the California Register of Historical Resources* (Sacramento: California Office of State Publishing, September 4, 2001); and California Office of Historic Preservation, *Technical Assistance Bulletin No. 6: California Register and National Register: A Comparison* (Sacramento: California Office of State Publishing, 2006).

- *Criterion 4 (Information Potential)*: Resources or sites that have yielded or have the potential to yield information important to the prehistory or history of the local area, California, or the nation.

It is Page & Turnbull's opinion based on preliminary review that the four properties at 2032, 2036, 2040, and 2043 Euclid Avenue do not appear to be eligible for individual listing in the California Register under any criteria. Research did not uncover any significant events that are known to have occurred at any of these four properties, and none of the properties appear to be associated with any broad patterns in local, state, or national history for eligibility under Criterion 1 (Events). Furthermore, none of these four properties are associated with any of the agricultural themes, including the development of Runnymede (the Weeks Poultry Colony Weeks Colony), that are part of East Palo Alto's unique development history. Preliminary research did not reveal any significant associations with the known owners or occupants of any of the four properties to suggest that they would be eligible under Criterion 2 (Persons). No architect or builder has been identified for any of the properties; however, building permit histories were not available at the time of research.[13] Two of the properties—2032 and 2036 Euclid Avenue—are modest Vernacular style residences that have been altered with front additions. 2040 Euclid Avenue is a modest expression of the Craftsman style, but has been reclad with stucco and all windows replaced with vinyl sash windows, and is not a good example of the style. As such, based on preliminary review, 2032, 2036, and 2040 Euclid Avenue do not appear to be eligible for the California Register under Criterion 3 (Architecture).

The former residential building at 2043 Euclid Avenue was designed in a modest expression of the Tudor Revival style, and has since been altered. Not many examples of the Tudor Revival style appear to exist in East Palo Alto, which appears to, in part, be a function the agriculture-oriented development in the first half of the twentieth century as the style is prevalent in neighboring cities, including examples built by contractors and architect-designed examples. Beyond the steeply pitched roof and decorative half-timbering, the residence does not exhibit many architectural or decorative features that are associated with full expressions of the Tudor Revival style. The building at 2043 Euclid Avenue has also been altered with the addition of exterior stairs at the north facade, alterations to the recessed entry porch, the addition of a rear ramp, and alterations to the fenestration at the rear. 2043 Euclid Avenue overall is a modest expression of the Tudor Revival, has been altered, and does not stand out among numerous residential examples of this style regionally, statewide, or nationally. As such, based on preliminary review, 2043 Euclid Avenue does not appear to be eligible for the California Register under Criterion 3 (Architecture).

The analysis of properties for eligibility under Criterion 4 (Information Potential) typically relates to archeological resources rather than built resources and is beyond the scope of this memorandum.

[13] Page & Turnbull submitted an electronic public records request to the City of East Palo Alto on April 29, 2020 for building permits on file for the four subject properties; however, the records were not provided by the time of completion of this memorandum. Page & Turnbull did not find any building permit listings or other information related to original construction of the four properties in an online search of historical newspapers using Newspapers.com and the California Digital Newspaper Collection.

CONCLUSION

Page & Turnbull's professional opinion based on preliminary review is that none of the four properties—2032, 2036, 2040, and 2043 Euclid Avenue, East Palo Alto—appear eligible for individual listing in the California Register of Historical Resources. The City of East Palo Alto does not have a historic preservation ordinance that outlines eligibility requirements for listing on the City of East Palo Alto Local Register of Historic Resources. As such, the properties' eligibility for listing in East Palo Alto's local register cannot be determined.

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Appendix D

Energy Calculations

Construction Energy

On-Site Diesel[1]	$MTCO_2e$	Gallons of Fuel[4]	Current County Fuel	Percent
Demolition	145	14,332		
Site Preparation/Grading	454	44,705		
Building Construction	685	67,448		
Paving	23	2,266		
Architectural Coating	23	2,266		
Total	1,330	**131,018**	**29,048,970**	**0.4510%**
Off-Site Diesel[1]				
Demolition	28	2,744		
Site Preparation/Grading	13	1,281		
Building Construction	814	80,211		
Paving	1	99		
Architectural Coating	0	0		
Total	856	**84,334**	**29,048,970**	**0.2903%**
Off-Site Gasoline[2]				
Demolition	4	440		
Site Preparation/Grading	10	1,135		
Building Construction	926	105,081		
Paving	0	0		
Architectural Coating	56	6,356		
Total	996	**113,012**	**246,276,166**	**0.0459%**
Total Diesel Fuel		**215,352**	29,048,970	**0.7413%**
Total Gasoline Fuel		**113,012**	246,276,166	**0.0459%**
Total Construction Fuel	3,181	**328,364**		

Construction Phase[3]	**Demolition**			**Site Preparation**			**Grading**		
	On-Site Diesel (Off-Road)	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gas (Worker)**	**On-Site Diesel (Off-Road)**	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gas (Worker)**	**On-Site Diesel (Off-Road)**	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gas (Worker)**
2022	145	28	4	39		1	415	13	9
2023									
2024									
2025									
Total	**145**	**28**	**4**	**39**	**0**	**1**	**415**	**13**	**9**
Construction Phase[3]	**Building Construction**			**Paving**			**Architectural Coating**		
	On-Site Diesel (Off-Road)	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gas (Worker)**	**On-Site Diesel (Off-Road)**	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gas (Worker)**	**On-Site Diesel (Off-Road)**	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gas (Worker)**
2022									
2023	276	331	385	23	1				
2024	306	362	409				11		27
2025	103	121	132				12		29
Total	**685**	**814**	**926**	**23**	**1**	**0**	**23**	**0**	**56**

Notes:

[1] Fuel used for off-road, hauling, and vendor trips assumed to be diesel.

[2] Fuel used for worker trips assumed to be gasoline.

[3] $MTCO_2e$ rates from CalEEMod (3.0 Construction Details).

[4] For CO2e emissions, see Chapter 13 (page 94); Conversion Ratios: Climate Registry, General Reporting Protocol, 2016.

Operational Fuel Consumption

Vehicle Type	Percent[1]	Annual VMT[2]	MGP[3]	Annual Fuel	Fuel Type	County Gallons[4]	County Percent		Statewide	Statewide percent
Passenger Cars	0.9353	9,685,011	21.6	**448,380**	Gas	246,276,166	**0.1821%**		15,589,042,965	0.0029%
Light/Medium Trucks	0.28440	2,945,132	17.2	171,229	Diesel	29,048,970	**0.0563%**	**0.6283%**	3,107,823,655	0.0055%
Heavy Trucks/Other	0	68,823	6.1	11,282	Diesel	29,048,970	**0.0037%**			
Total	1.226	**10,355,487**		**182,511**		304,374,106				

Land Use[1]	LDA	LDT1	LDT2	MCY	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	SBUS	MH
Apartments Mid Rise	0.461846	0.050659	0.270877	0.009295	0.142577	0.017053	0.00714	0.25153	0.006646	0.004299	0.003035	0.000522	0.00082
Enclosed Parking Structure	0.461846	0.050659	0.270877	0.009295	0.142577	0.017053	0.00714	0.25153	0.006646	0.004299	0.003035	0.000522	0.00082
Parking Lot	0.461846	0.050659	0.270877	0.009295	0.142577	0.017053	0.00714	0.25153	0.006646	0.004299	0.003035	0.000522	0.00082
Strip Mall	0.461846	0.050659	0.270877	0.009295	0.142577	0.017053	0.00714	0.25153	0.006646	0.004299	0.003035	0.000522	0.00082

Notes:

[1] Percent of vehicle trip distribution based on fleet mix from CalEEMod (4.4 Fleet Mix).

[2] Total annual operational VMT based on mitigated annual VMT from CalEEMod (4.2 Trip Summary Information).

[3] Average fuel economy derived from Department of Transportation.

[4] Total annual county fuel per EMFAC 2017 model of projected operational fuel usage.

Operational Electricity and Natural Gas

	Mitigated Project Annual Energy	County Annual Energy[3]	Percentage Increase
Electricity (kWh/yr)	3,659,380	**4,325,279,371**	**0.0846%**
Electricity (MWh/yr)	3,659	**4,325,279**	**0.0846%**
Electricity (GWh/yr)	**3.65938**	4325.2793	**0.0846%**
Natural Gas (million therms)	0.04	**214.429843**	
Natural Gas (kBTU/yr)	4,189,110	21,442,984,300	**0.0195%**
Natural Gas (therms)	**41,891.10**	214,429,843	**0.0195%**

Land Use	**Electricity[1] (kWh/yr)**		**Natural Gas[2] (kBTU/yr)**	
	Unmitigated	**Mitigated**	**Unmitigated**	**Mitigated**
Apartments Mid Rise	2,554,300	2,476,900	5,281,910	4,171,960
Enclosed Parking Structure	1,417,500	1,123,500	-	-
Parking Lot	9,940	9,940	-	-
Strip Mall	52,400	49,040	23,000	17,150
Total Energy	**4,034,140**	**3,659,380**	**5,304,910**	**4,189,110**

Notes:

[1] Electricity use per CalEEMod (5.3 Energy by Land Use).

[2] Natural Gas use per CalEEMod (5.2 Natural Gas by Land Use).

[3] County total energy values from California Energy Commission energy reports available through ecdms.energy.ca.gov.

Construction Water Consumption

Daily Soil Disturbance[1]	**377.5**	acres
Days of Soil Disturbance[2]	**74**	days
Water Concentration[3]	3,020	gallons/acre
Water Energy Intensity[4]	3,500	kWh/MG
Total Construction Water	**84.36**	million gallons
Construction Water Energy	**295,273**	kWh
	295	MWh
	0.2953	GWh
Percentage Increase Countywide	**0.006827%**	

Notes:

[1] Total daily acres disturbed from offroad equipment per CalEEMod (3.0 Construction Detail) and maximum SCAQMD LST values for soil-disturbing equipment.

[2] Number of days of construction with soil-disturbing equipment per CalEEMod (3.0 Construction Detail).

[3] Water application rate per Air and Waste Management Association's Air Pollution Engineering Manual.

[4] Water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343.

Operational Water Energy

Mitigated Indoor	31.53	million gallons	
Indoor Energy Intensity Factor[1]	5,411	kWh/MG	
Mitigated Outdoor	23	million gallons	
Outdoor Energy Intensity Factor[2]	3,500	kWh/MG	
Operational Water Energy	**251108.83**	kWh	
Operational Water Energy	**0.25110883**	GWh	3.91048883
Total water use	**54.53**	million gallons	0.090%
	0.0058%		

Land Use[3]	Unmitigated (MG)		Mitigated (MG)	
	Indoor	Outdoor	Indoor	Outdoor
Apartments Mid Rise	39	25	32	23
Enclosed Parking Structure	0	0	0	0
Parking Lot	0	0	0	0
Strip Mall	0	0	0	0
Total Operational Water	**40**	**25**	**32**	**23**

Notes:

[1] Indoor water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343. Factor includes supply, treatment, distribution, and wastewater.

[2] Outdoor water energy intensity factor for county subarea per CalEEMod User Guide, Appendix D, page D-343. Factor includes supply, treatment, and distribution.

[3] Operational water use values per CalEEMod (7.2 Water by Land Use).

Electric Pump Energy and GHG Calculations

	300	HP			
Electric Pump	1 HP =	0.75	kw		
	1,971,000	kwh/yr[1]	=	1,971.00	MWH/yr
				1.971	GWh/yr

Diesel Pump	$MTCO_2e$	Gallons of Fuel[4]
	6	574

Emissions Factors

	lb/MWh	**lbs/yr**	**MT/yr**	**$MTCO_2eq/yr$**
CO_2	160.43634	316,220.03	143.44	143.44
CH_4	0.029	57.16	0.03	0.65
N_2O	0.00617	12.16	0.01	1.64
				145.73

Notes:

1. Assumes continuous pump operation 24 hours per day 365 days per year.

2. Based on intensity factors for Southern California Edison (as provided in CalEEMod and updated per the PG&E 2020 Corporate Responsibility and Sustainability Report).

Appendix E

Feasibility Geotechnical Engineering Study

Geosphere Consultants, Inc.
AN ETS COMPANY
Geotechnical Engineering • Engineering Geology
Environmental Management • Water Resources

Feasibility Geotechnical Engineering Study

PROPOSED DEVELOPMENT | Woodland Park - Euclid Improvements

East Palo Alto, California









PREPARED FOR:

Woodland Park Communities
5 Newell Court
East Palo Alto, CA 94303

PREPARED BY:

Geosphere Consultants, Inc.
2001 Crow Canyon Road, Suite 210
San Ramon, CA 94583

GEO Project No. 91-04041-A
September 3, 2019

ATLAS
Geosphere Consultants, Inc.
Geotechnical Engineering • Engineering Geology
Environmental Management • Water Resources
— AN ATLAS COMPANY —

September 3, 2019

Woodland Park Communities
5 Newell Court
East Palo Alto, California 94303

Subject: **Feasibility Geotechnical Engineering Study**
Proposed Development – Woodland Park – Euclid Improvements
East Palo Alto, California 94025
Geosphere Project No. 91-04041-A

Dear Mr. Kramer:

Geosphere Consultants, Inc. has completed a Feasibility Geotechnical Engineering Study for a potential development of properties in the vicinity of West Bayshore Road, Manhattan and Euclid Avenues within East Palo Alto, San Mateo County, California. This report has been prepared based on our discussion with your office staff, and review of select conceptual project plans. Transmitted herewith are the results of our findings, conclusions, and preliminary recommendations regarding geologic hazards, foundation types, site grading, cut and fill slopes, shoring, and pavement design. In general, the proposed improvements at the site are considered to be geotechnically feasible provided the geotechnical considerations described in this report are addressed in the design and construction of the project.

Should you or members of the design team have questions or need additional information, please contact the undersigned at (925) 314-7180, or by e-mail at cdare@geosphereinc.net. We greatly appreciate the opportunity to be of service to Woodland Park Property and to be involved in this project.

Sincerely,
GEOSPHERE CONSULTANTS, INC.

Alex Lim, PE, QSP
Project Engineer

Corey T. Dare, PE, GE
Principal Geotechnical Engineer



Distribution: PDF to Addressee; MKramer@shpco.com

AL/CTD:pmf

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- **LIQUEFACTION EVALUATION RESULTS**

FEASIBILITY GEOTECHNICAL ENGINEERING STUDY

Project: Proposed Development – Woodland Park – Euclid Improvements
East Palo Alto, California

1.0 INTRODUCTION

1.1 Purpose and Scope

The purpose of this feasibility study was to evaluate the subsurface conditions at the site and develop conclusions and preliminary recommendations regarding the feasibility of development at the project site from a geotechnical and geological standpoint. This study provides our findings, conclusions, and preliminary recommendations regarding geologic hazards, geotechnical design and construction considerations, feasible foundation types, site grading, excavation cut slopes, and shoring.

The scope of this study included the review of available geotechnical and geologic literature for the site, the drilling of five subsurface borings within the project site, laboratory testing of selected samples retrieved from the borings, engineering analysis of the accumulated data, and preparation of this report. The conclusions and preliminary recommendations presented in this report are based on the data acquired and analyzed during this study, and on prudent engineering judgment and experience.

1.2 Site Description

The proposed development project is divided into three discrete areas separated by adjacent in-between streets, centered on the intersection of Euclid Avenue and East O'Keefe Street, at the general location indicated on Figure 1, *Site Vicinity Map*. This map also shows the San Francisquito Creek channel, situated approximately 750 feet south of the site, which locally travels in a west to east direction toward San Francisco Bay, and which separates San Mateo and Santa Clara Counties. The proposed project site is generally surrounded by residential single-family houses and apartments on its west and south sides, is bound by U.S. Highway 101 on the north, and by a Four Seasons Hotel property on the east, as shown on Figure 2, *Site Plan and Site Geology Map*. Each area is occupied by multiple apartment buildings and multiplexes, with associated parking areas consisting of paved areas with outside parking stalls and soft-story building parking. The site vicinity generally descends gently northeast towards the bay with elevations ranging from +23 to +25 feet based on Google Earth Pro elevations.

1.3 Proposed Development

It is our understanding that the subject properties are being evaluated for potential future use for new multi-family development. The evaluated area of potential development is shown on Figure 2. Foundation types and loads for new structures were not determined as of the time of this study, but could potentially consist of shallow spread footing foundations or structural mat foundations, with potential ground improvement if needed for support of shallow foundations.

1.4 Validity and Use of Report

This report is a feasibility level study intended to be a screening tool to evaluate the critical geotechnical aspects of the site which will affect the potential cost of developing the site with an intended development scheme. This level of study provides guidance on issues which may affect the amount of grading required, the potential geologic hazards which will affect the development, and preliminary recommendations on alternative foundation design types which would be appropriate for the planned development.

This feasibility report should be considered to be valid for five years after publication. If the actual development differs considerably from that described above, conclusions and recommendations regarding the geotechnical feasibility of development could differ and may need to be re-evaluated by Geosphere.

2.0 PROCEDURES AND RESULTS

2.1 Literature Review

Pertinent geologic and geotechnical literature pertaining to the site area was reviewed. These included various publications and maps issued by the United States Geological Survey (USGS), California Geological Survey (CGS), Santa Clara County and other government agencies, as listed in the References section.

2.2 Field Exploration

In order to characterize the subsurface conditions across the property, a field exploration program was conducted, which consisted of the drilling of five test borings at the site on October 25, 2017 under the supervision of a Geosphere staff engineer.

The borings were drilled at the locations indicated on Figure 2 to total depths of 20 to 40 feet using a Mobile B-53B drill rig equipped with eight-inch diameter, hollow-stem augers. The Geosphere engineer visually classified the materials encountered in the borings based on the Unified Soil Classification System as the borings were advanced. Relatively undisturbed soil samples were recovered at selected intervals using a three-inch outside diameter Modified California split spoon sampler containing six-inch long brass liners, and disturbed samples recovered using a two-inch outside diameter Standard Penetration Test (SPT) sampler. The samplers were driven by means of a 140-pound wireline hammer with an approximate 30-inch fall. Resistance to penetration was recorded as the number of hammer blows required to drive the sampler the final foot of an 18-inch drive. For reporting purposes, all of the blow counts recorded using Modified California (MC) split spoon samplers in the field were subsequently converted to equivalent SPT blow counts using appropriate modification factors suggested by Burmister (1948); i.e., multiplied by a factor of 0.65 assuming a liner sample with an inner diameter of 2.5 inches. Therefore, the boring logs provided in this report all show *equivalent SPT blow counts* for the MC sampler in lieu of blow counts recorded in the field. Following the completion of drilling, the boreholes were backfilled with drill cuttings and sealed at the surface using a cement grout.

The boring logs with descriptions of the various materials encountered in each boring, a key to the boring symbols, and select laboratory test results are included in Appendix A. Ground surface elevations indicated on the soil boring logs were estimated to the nearest foot using Google Earth Pro.

2.3 Laboratory Testing

Laboratory tests were performed on selected samples to determine some of the physical and engineering properties of the subsurface soils. The results of the laboratory testing are either presented on the boring logs, and/or are included in Appendix B. The following soil tests were performed for this study:

Dry Density and Moisture Content (ASTM D2216 and ASTM 2937) – In-situ dry density and/or moisture tests were conducted on several samples to measure the in-place dry density and/or moisture content of the subsurface materials. These properties provide information for evaluating the physical characteristics of the subsurface soils. Test results are shown on the boring logs.

Atterberg Limits (ASTM D4318 and CT204) - Atterberg Limits tests were performed on select samples of cohesive soils encountered at the site. Liquid Limit, Plastic Limit, and Plasticity Index are useful in the classification and characterization of the engineering properties of soil, and help to evaluate the expansive characteristics of the soil and determine the USCS soil classification. Test results are presented in Appendix B, and on the boring logs.

Particle Size Analysis (Wet and Dry Sieve) and Hydrometer (ASTM D422, D1140, and CT202) - Sieve analysis tests were conducted on select samples to measure the soil particle size distribution. This information is useful for the evaluation of liquefaction potential and characterizing the soil type according to USCS. Test results are presented in Appendix B.

Consolidation Test (ASTM D2435) – A consolidation test was performed on one relatively undisturbed sample of the subsurface native clay soils to assist in evaluating the compressibility characteristics of the material. Consolidation test results are used in the analyses of site settlement occurring due to the squeezing of pore water out of saturated, compressible materials in response to surcharge from sources such as from a new fill or structure (e.g., building foundation) loads. The results of the consolidation test are included in Appendix B.

3.0 GEOLOGIC AND SEISMIC OVERVIEW

3.1 Regional and Local Geologic Setting

The site is located in the central portion of the northern Coast Ranges geomorphic province of California. The Coast Ranges extend from the Transverse Ranges in southern California to the Oregon border and are comprised of a northwest-trending series of mountain ranges and intervening valleys that reflect the overall structural grain of the province. The ranges consist of a variably thick veneer of Cenozoic volcanic and sedimentary deposits overlying a Mesozoic basement of sedimentary, metamorphic, and basic igneous Franciscan Formation and primarily marine sedimentary rocks of the Great Valley Sequence. East-dipping sedimentary rocks of the Coast Ranges are flanked on the east by sedimentary rocks of the Great Valley geomorphic province (Page, 1966).

More specifically, the site is located at the southwestern margin of the Santa Clara Valley, within the alluvial plain between the northeastern base of the Santa Cruz Mountains to the southwest and San Francisco Bay to the northeast. Based on small scale mapping by Graymer et al. (2006), as shown on Figure 3, *Site Vicinity Geologic Map,* the site is underlain by Holocene-aged surficial sediments (shown on Figure 3 as Qal). Larger scale mapping by Dibblee and Minch (2007) described the surficial sediments as alluvial gravel, sand, silt, and clay representing undifferentiated stream alluvium in drainages and younger alluvial fan deposits at base of slopes and on fan areas.

3.2 Geologic Evolution of the Northern Coast Ranges

The subject site is located within the tectonically active and geologically complex northern Coast Ranges, which have been shaped by continuous deformation resulting from tectonic plate convergence (subduction) beginning in the Jurassic period (about 145 million years ago). Eastward thrusting of the oceanic plate beneath the continental plate resulted in the accretion of materials onto the continental plate. These accreted materials now largely comprise the Coast Ranges. The dominant tectonic structures formed during this time include generally east-dipping thrust and reverse faults.

Beginning in the Cenozoic time period (about 25 to 30 million years ago), the tectonics along the California coast changed to a transpressional regime and right-lateral strike-slip displacements as well as thrusting were superimposed on the earlier structures resulting in the formation of northwest-trending, near-vertical faults comprising the San Andreas Fault System. The northern Coast Ranges were segmented into a series of tectonic blocks separated by major faults including the San Andreas, Hayward, and Calaveras. The project site is situated between the active Hayward and San Andreas faults, but no known active faults with Holocene movement (last

11,000 years) lie within the limits of or near to the site. The site is not mapped within an Alquist-Priolo Earthquake Fault Zone.

3.3 Regional Faulting and Tectonics

Regional transpression has caused uplift and folding of the bedrock units within the Coast Ranges. This structural deformation occurred during periods of tectonic activity that began in the Pliocene and continues today. The site is located in a seismically active region that has experienced periodic, large magnitude earthquakes during historic times. This seismic activity appears to be largely controlled by displacement between the Pacific and North American crustal plates, separated by the San Andreas Fault zone located approximately five miles west of the site. This plate displacement produced regional strain that is concentrated along major faults of the San Andreas Fault system including the San Andreas, Hayward, and Calaveras faults, as shown on Figure 4, *Regional Fault Map*. Active faults in general proximity to the project site include the San Andreas and Seal Cove-San Gregorio faults, located about 7 and 16 miles southwest of the site, respectively; and the Hayward, Calaveras, and Greenville faults, located about 11.5, 17 and 30 miles, respectively, northeast of the site. An inactive fault identified as the Palo Alto Fault is mapped by CGS (2010) and as shown on Figure 4 as traversing locally along U.S. Highway 101 and therefore very close to the site. However, the location of this fault is locally poorly defined with no surface expression within the densely urbanized area.

Contraction across a restraining bend in the San Andreas Fault has resulted in ongoing late-Quaternary uplift of the Santa Cruz Mountains, with at least some of the uplift occurring along a 3 to 5 km-wide zone of northwest-trending, southwest dipping reverse faults along the northeast front of the Santa Cruz Mountains range front (Hitchcock et al., 2004). These faults, referred by some investigators as the Foothills thrust system, bound the western margin of the Santa Clara Valley and include the northwest-trending Berrocal, Monte Vista, and Shannon Faults, which generally dip southwest toward the San Andreas Fault. The closest of these faults to the site, the potentially active Monte Vista Fault, passes on the order of 5.5 miles southwest of the site. In addition to the aforementioned faults, blind reverse faults to the southeast such as the Cascade and Santa Clara faults that underlie and are hidden beneath younger sediments filling the Santa Clara Valley, have been identified that may also account for some of the ongoing uplift of the Santa Clara Mountains.

The Working Group on California Earthquake Probabilities (WGCEP, 2015), in conjunction with the United States Geological Survey (USGS), has evaluated the probabilities of significant earthquakes occurring in the Bay Area over the next 30 years. The WGCEP report indicates that there is a 72 percent probability that at least one magnitude (M) 6.7 or greater earthquake will occur in the San Francisco Bay region before 2045. This probability is an aggregate value that considers seven principal Bay Area fault systems and unknown faults (background values).

4.0 SUBSURFACE CONDITIONS

4.1 Subsurface Soil Conditions

During our subsurface exploration program, we investigated the subsurface soils and evaluated soil conditions to maximum depth of about 40 feet as performed for this study. From our field exploration and collected data, we conclude that where explored, the site below the pavement section/topsoil in our borings is underlain by alluvial soils generally consisting of soft to very stiff sandy clay to depths ranging between about 12 to 19 feet, overlying soft to very stiff, variable, fine grained clayey materials such as clayey silt and silty clay with an interbedded coarse-grained layer to the maximum explored depth. A laboratory consolidation test was performed on a sample collected from an approximately 5-foot thick layer of medium stiff clayey silt encountered between 12 and 17 feet in Boring B-3, with the results indicating the soil to be relatively weak and compressible.

Within Boring B-5, located toward the southeast portion of the site near its closest proximity to San Francisquito Creek, we encountered a relatively clean granular sand layer between approximate depths of 17 to 32 feet. Boring B-4 encountered similar type of materials to maximum depth explored of 20 feet. Measured fines contents of a sample recovered from an underlying granular sand layer indicated a measured fines content of 8 percent.

The near-surface clay soils were found to be of medium to high plasticity and moderately high expansion potential based on measured Atterberg Limit values for two samples in B-2 and B-5, both consisting of a Liquid Limit (LL) of 42 and corresponding Plasticity Index (PI) of 24.

Our general interpretation of the subsurface soil conditions across the site based on the borings is presented in Figure 5a, *Schematic Geologic Cross Section A-A'* and Figure 5b, *Schematic Geologic Cross Section B-B'*. Additional details of materials encountered in the exploratory borings, including laboratory test results, are included in the boring logs in Appendix A, and laboratory test summaries are presented in Appendix B.

4.2 Groundwater Conditions

Groundwater was encountered in all of our borings between measured depths of 15 to 16 feet after drilling, corresponding to Elevation +7 to +10 feet. The historical high (i.e., shallowest) groundwater depth is estimated to be on the order of 13 feet at the project site based on a groundwater contour map presented in the *Seismic Hazard Zone Report for the Palo Alto 7.5-minute Quadrangle* (CGS, 2006).

We note that the borings may not have been left open for a sufficient period of time to establish equilibrium groundwater conditions. Groundwater levels can vary in response to time of year, variations in seasonal rainfall, well pumping, irrigation, and alterations to site drainage.

5.0 GEOLOGIC HAZARDS

5.1 Seismic Induced Hazards

Seismic hazards resulting from the effects of an earthquake generally include ground shaking, liquefaction, lateral spreading, dynamic settlement (densification), fault ground rupture and fault creep, seismic slope failure, and less commonly, tsunamis and seiches. The site is not necessarily impacted by all of these potential seismic hazards. Applicable potential seismic hazards are discussed and evaluated in the following sections in relation to the planned construction.

5.1.1 Ground Shaking

The site will likely experience moderate to strong ground shaking from a major earthquake originating from a number of significant faults in the greater San Francisco Bay Area, including the San Andreas, Hayward-Rodgers Creek, Calaveras, Seal Cove-San Gregorio, and Concord-Green Valley faults. Earthquake intensities vary throughout the greater Bay Area depending upon the magnitude of the earthquake, the distance of the site from the causative fault, the type of materials underlying the site and other factors.

In addition to shaking of the structures, strong ground shaking can induce other related phenomena that may have an effect on structures, such as liquefaction and dynamic densification settlement.

5.1.2 Liquefaction Induced Phenomena

The site is mapped as within a CGS Seismic Hazard Zone requiring liquefaction investigation (CGS, 2003). Using the interactive liquefaction susceptibility map by the Association of Bay Area Governments (ABAG), as shown on Figure 6, *Liquefaction Susceptibility Map*, the site is mapped as in a zone of very high liquefaction susceptibility.

Research and historical data indicate that soil liquefaction generally occurs in saturated, loose granular soil (primarily fine to medium-grained, clean, poorly-graded sand deposits) during or after strong seismic ground shaking and is typified by a loss of shear strength in the affected soil layer, thereby causing the soil to flow as a liquid. Typically, liquefaction potential increases with increased duration and magnitude of cyclic loading. However, because of the higher intergranular pressure of the soil at greater depths, the potential for liquefaction is generally limited to the upper 40 to 50 feet of the soil. Potential hazards associated with soil liquefaction below or near a structure include loss of foundation support, lateral spreading, sand boils, and areal and differential settlement.

Lateral spreading is lateral ground movement, with some vertical component, as a result of liquefaction. The soil literally rides on top of the liquefied layer. Lateral spreading can occur on relatively flat sites with slopes less than two percent under certain circumstances, generally when the liquefied layer is in relatively close proximity to an open, free slope face such as the bank of a creek channel. Lateral spreading can cause surficial ground tension cracking (i.e., lurch cracking) and settlement.

The soils encountered in our subsurface investigation indicated a near-continuous layer of medium dense, granular sands possibly occurring between depths of 17 and 32 feet in Boring B-5. Additionally, layers of potentially liquefiable granular materials between 3 and at least 8 feet thick were encountered in Borings B-1, B-2, and B-4. Therefore, a liquefaction analysis of these soils was conducted.

The initiation of liquefaction settlement occurs as a result of seismic shaking, the magnitude of settlement increasing with increasing site ground accelerations. The 2016 CBC specifies that that Peak Ground Acceleration (PGA_M) as defined in the CBC be used for liquefaction and other seismic analyses. This resulted in a PGA used in our analysis of 0.556 g. We also used a Modal Magnitude of 7.9 applicable to the San Andreas Fault. A historic groundwater depth of 13 feet was assumed for analysis. A Factor-of-Safety (FS) of 1.0 was assumed to initiate dynamic settlement.

We utilized the software LiquefyPro, Version 5 (CivilTech Software, 2011) to perform our liquefaction analysis for our Boring B-5. The following table presents a summary of our analysis results. Calculation graphic printouts of our analyses are presented in Appendix C of this report.

Table 1: Summary of Liquefaction Settlement Analysis Results

Boring No.	Calculated Liquefaction Settlement (inches)	Calculated Dynamic Compaction Settlement (inches)	Calculated Total Seismic Settlement (inches)
B-1	1.5	0.0	1.5
B-2	2.1	0.0	2.1
B-4	1.9+*	0.0	1.9+
B-5	3.3	0.0	3.3
* Liquefiable layer extends below bottom of boring			

In our opinion, based on available information, the site is not considered to be significantly susceptible to lateral spreading. The closest open slope face to the site is that of the San Francisquito Creek channel, which is on the order of 800 feet south of the project area at its closest point. The relatively shallow depth of the creek bed

(estimated to be on the order of 12 to 15 feet) and insufficient information to indicate the existence of a continuous liquefiable layer between the creek and the project site further suggest the potential for future seismic settlement due to lateral spreading is likely very low.

5.1.3 Dynamic Densification (Settlement)

Dynamic densification or settlement is a process in which unsaturated, relatively clean sands and silts are densified by the vibratory motion of a strong seismic event. The soils encountered during our exploration above the estimated historic high groundwater table generally consisted of soft to very stiff clays, or loose to medium dense clayey sands with sufficient fines. Therefore, it is our opinion that the site should not be significantly affected by dynamic settlement. Potential dynamic settlement was also calculated in four of the borings by LiquefyPro as part of our liquefaction evaluation and the calculated results are indicated on Table 1.

5.1.4 Fault Ground Rupture and Fault Creep

The State of California adopted the Alquist-Priolo Earthquake Fault Zone Act of 1972 (Chapter 7.5, Division 2, Sections 2621 – 2630, California Public Resources Code), which regulates development near active faults for the purpose of preventing surface fault rupture hazards to structures for human occupancy. In accordance with the Alquist-Priolo (A-P) Act, the California Geological Survey established boundary zones for designated *Earthquake Fault Zones* surrounding faults or fault segments judged to be sufficiently active, well-defined and mapped for some distance. Structures for human occupancy within designated Earthquake Fault Zone boundaries are not permitted unless surface fault rupture and fault creep hazards are adequately addressed in a site-specific evaluation of the development site.

The site is not currently within a designated Earthquake Fault Zone as defined by the State (Hart and Bryant, 1997). The closest Earthquake Fault Zone is associated with the San Andreas Fault, located about 7 miles to the southwest of the site. An inactive fault identified by CGS as the Palo Alto Fault is mapped as passing below or in close proximity to the site, but its specific location is poorly defined.

Based on our evaluation, in our opinion, the potential for fault ground rupture or surface creep at the site is very low to nil.

5.2 Consolidation Settlement

Consolidation occurs as a result of water being squeezed out from a saturated soil as internal pore water pressures

induced by an external load are dissipated over time. As the water moves out from the soil, the solid particles re-align into a more dense configuration with settlement resulting. Consolidation typically occurs as a result of new buildings or fills being placed over them, but consolidation can also occur from groundwater withdrawal. Consolidation of clayey soils is usually a long-term process, where-by the water is squeezed out of the soil matrix with time. Sandy soils consolidate relatively rapidly with an introduction of a load.

Some potentially compressible, medium stiff clay silt soils were found in Borings B-2 and B-3. Applied new building loads inducing pressure on these compressible clays, or additional new fill placement would be expected to induce consolidation of the underlying compressible clays, resulting in site and foundation settlements that could be damaging to new construction.

Consolidation settlement analyses were conducted on a generalized soil profile assuming compressible materials present between depths of 12 and 17 feet. Analysis results indicate building loads such as induced by a new, shallow spread footing foundation may be expected to induce consolidation settlement below the footing. For evaluation purposes, assuming a typical interior column load of 62.5 kips (dead plus live load) and an allowable dead plus live bearing pressure of 2,500 pounds per square foot (psf), a resulting estimated maximum ultimate settlement for such an interior column on the order of 1¼ inch was calculated for the building due solely to this building load (i.e., no new areal fill).

5.3 Expansive Soils

Visual observation and lab results of select samples of the near-surface soils indicated the soils to generally be of medium high plasticity and moderately high expansion potential. Expansive soils may impact the performance of foundations and site flatwork, as expansive soil pressures may develop that can manifest primarily as seasonal heaving and settlement effects. Potential expansive soil pressures can and should be accounted for in the design of these project elements, and recommendations for construction of foundations, slabs and sitework are presented herein in the geotechnical recommendations presented in this report.

5.4 Flood Hazard

Based on our review of the Federal FIRM maps, the project site is not located within or near a mapped flood hazard zone. The closest mapped zone is a confined width within the San Francisquito Creek channel, located about 800 feet south of the site at its closest point.

6.0 CONCLUSIONS AND PRELIMINARY RECOMMENDATIONS

The following conclusions and preliminary recommendations pertaining to the proposed redevelopment of this site are based upon the analysis of the information gathered during the course of this study and our understanding of the proposed improvements.

6.1 Conclusions

The site is considered to be geotechnically and geologically feasible for potential future development as being considered. The predominant geotechnical and geological issues that potentially impact development of this site are summarized below.

Seismic Ground Shaking – The site is located within a seismically active region and expected to be subjected to moderately strong to very strong ground shaking during the life of new structures. As a minimum, new building designs should consider the effects of seismic activity in accordance with the latest edition of the California Building Code (CBC).

Weak Surficial Soils – Relatively loose granular or soft to medium stiff cohesive surficial soils were encountered within the upper three to five feet of the soil profile in three of the five borings. Such soils are potentially weak and compressible, and either may not be suitable for foundation support of any but minor structures due to the potential occurrence damaging future settlements, or would require that lower allowable foundation bearing pressures be used. We anticipate that the uppermost such soils (i.e., one to two feet) would be primarily removed or reworked as part of the mass grading operations for the site. Where any loose surficial soils otherwise remain within structural support areas, these soils should be removed and replaced by engineered fill. Excavated onsite soils free of organics or debris would be suitable for reuse as engineered fill. The extent and thickness of weak surficial soils should be further evaluated on a location-specific basis during the design-level study for each proposed structure.

Undocumented Site Fills – A significant portion of the potential development area is currently occupied by existing buildings of various types and sizes. It is likely that unknown grading was performed as part of the development of these structures that would result in various undocumented fills within the development area. In addition, demolition and removal of these structures and associated site infrastructure (e.g., pavements and underground utilities) could result in filling of these areas by undocumented fill should such demolition (e.g., foundation removal) operations be accomplished- by demolition contractors without proper engineering observation and

testing. Undocumented fill, if not mitigated, may be susceptible to settlement under new building or fill loads, where such fills are not properly compacted, resulting in potential building damage or distress. Where these undocumented materials are not removed by site grading, additional over excavation and replacement of the over excavated areas by engineered fill may be required, particularly in building pad areas where new foundations are to be constructed.

Seismically-Induced Settlement – Isolated, discontinuous layers of potentially liquefiable granular soils were encountered within four of the five total explorations. As presented in Section 5.1.2, calculated liquefaction settlements where evaluated using ground shaking criteria specified in the 2016 CBC ranged between 1.5 and 3.3 inches. Corresponding differential settlements across a structure should be considered to be on the order of one-half to two-thirds the corresponding total settlement across the footprint of any structure. Potential liquefaction settlements were calculated to occur within depths ranging between 13 (historic high groundwater table) and 32 feet below existing ground surface within discontinuous granular alluvial layers of varying thickness and depths within this depth range.

Seismically induced settlements should be considered to be in addition to potential immediate (static) and consolidation settlements at the site due to new fill and foundation loads, and can be addressed in combination with the estimated consolidation settlements. Specific structures within the potential project area, particularly larger structures, should be specifically evaluated during the design-level study considering seismic settlements, and foundation systems should be selected based on estimated settlements at the specific structure location, structure type and loads, pad elevation (i.e., at-grade or below-grade construction), and use of ground improvement (e.g., Drilled Displacement Columns) where warranted.

Underlying Compressible Soils – Varying depths and thicknesses of medium stiff, relatively compressible soils associated with the alluvial fan deposits were encountered during our limited field exploration. Potentially compressible soils were generally encountered between depths on the order of 12 to 27 feet below existing grades, and such layers may be susceptible to consolidation settlement under any additional future site fill, as well as new foundation loads. The magnitude of such settlements would depend on the depth of the compressible soils at the specific structure location, the magnitude of structural loads imposed on the compressible layer, and thickness of new fill or removal of loads due to excavation (i.e., below-grade construction). Preliminary analysis of typically loaded spread footing foundations suggest that consolidation settlements could be on the order of one inch or more for more heavily loaded structures within the project area. New structures would need to be

designed to accommodate such settlements as they occur; can be supported by the stiffer, less compressible soils generally present below a depth of about 27 feet; or ground improvement methods below the structure can be employed where economically feasible. One option for reducing the magnitude of future settlements is through the use of preload surcharging of the building pads using fill placed on top of the pads and allowed to induce site settlement prior to actual site grading, should the development schedule allow. We note that floor slab sections for buildings should be considered for settlement analysis purposes to be the same as newly placed fill.

Expansive Soils – Some of the surficial soils encountered in our explorations were found to be moderately to highly expansive. Where such soils are not removed by site grading, moderate measures to accommodate potentially highly expansive soils should be implemented, such as keeping subgrade surfaces moist before placement of concrete or pavement sections; deepened shallow foundations and use of stiffening elements such as interconnecting grade beams, and use of a non-expansive fill layer below interior floor slabs and exterior flatwork as appropriate.

Groundwater – Groundwater was encountered during our field exploration at about 15 feet below the existing grade and published large-scale maps suggest a historic high groundwater depth to be on the order of 13 feet in the project area. For at-grade construction, groundwater is not expected to be problematic during construction of shallow footing foundations, and shallow site utility excavations. Depending on the depth of below-grade construction, the presence of groundwater either from the proximity of the groundwater table or the occurrence of local perched groundwater trapped in local granular alluvial layers that may be present within the uppermost 15 feet may impact below-grade construction.

Soils below a depth of 10 feet were found to be near-saturated to saturated, and the bottom of excavations at or below this depth should also be assumed to be likely unstable during construction operations, possibly requiring chemical stabilization (e.g., lime or lime-cement treatment) to allow below-grade building construction to progress. Shoring systems deeper than 10 feet should require design considering potential groundwater pressures and possible dewatering of excavations.

Proximity of Below-Grade Excavations to Adjacent Structures – As the location and extent of specific future development within the study area has not yet been determined, there is a potential for future below-grade construction, if any, to be situated adjacent to existing structures and foundations. Depending on the depth of the new below-grade excavation and the lateral distance between such excavation and any adjacent existing

structure, below-grade walls as well as temporary shoring, if required, may need to account for lateral loads/surcharges imposed by the adjacent structures. In addition, where temporary excavation slopes are not feasible, restrained temporary shoring (e.g., using tiebacks) may be necessary.

6.2 Preliminary Recommendations

Preliminary recommendations concerning geotechnical and foundation issues at the site are provided as follows:

Site Grading

In general, where loose near-surface soils are not removed by site grading, such soils should be removed and replaced by engineered fill under building pads, pavements, and flatwork. Existing onsite soils free of oversize material (e.g., cobbles), vegetation, organics (topsoil), or other debris are suitable for reuse as engineered fill. Unsuitable material, including highly expansive clays, where encountered, should be removed from the site. Ground asphalt concrete, and expansive clays if desired can be reused as fill in pavement/flatwork and landscape areas, respectively. Excavations left by removal of foundations and utilities associated with the existing development should be backfilled as engineered fill unless any undocumented fill soils from demolition operations are above project subgrades and would subsequently be removed through mass grading for the project.

Foundations

Depending on building type, size, and foundation loads, new buildings at the site may consist of shallow spread footing, structural mat or post-tensioned slab foundations, with deep foundations possible if required due to settlement concerns. Engineering analyses of our preliminary data indicate that building loads may induce static settlements due to compression of the underlying near-surface soils, as well as due to consolidation of underlying compressible clay soil layers. In addition, liquefaction settlements may also occur due to the occurrence of a strong design seismic event that may occur on the San Andreas, Hayward or Calaveras Fault systems.

Footing Foundations - In general, more lightly loaded, smaller, flexible buildings such as one or two-story wood-frame buildings may be supported by conventional spread and continuous footing foundations bearing in competent native or cut materials or on engineered fill. Where undocumented fill may be encountered below the building, footings may either need to be deepened to be founded on competent native supporting materials underlying the fill, or the existing pad fill may need to be removed and reworked below new footing locations. Foundation embedment may be slightly deeper than normal for this type of structure (i.e., usually a minimum 24

inches below nearest adjacent grade) to account for expansive soil effects. Depending on the tolerable total and differential settlements as dictated by the structural engineer, stiffening elements such as use of grade beams or footings in a grid configuration may be required to provide adequate rigidity to the structure to accommodate the anticipated settlements. Alternatively, where settlements may be excessive to the structure, ground improvement below the footings such as use of Drilled Displacement Columns (CDD) may be employed. Ground improvement may likely only be cost effective for larger, more heavily loaded structures, and should be evaluated on an individual basis for buildings if this method is to be considered. Typical allowable dead plus live loads for footings would be in the range of 2,000 to 3,000 pounds per square foot (psf), with higher capacities available where ground improvement methods are utilized.

Structural Mat or Post-Tensioned Foundations – As an alternative to footing foundations, particularly where differential settlements are judged by the structural engineer to be excessive for footing foundations, a structural mat or post-tensioned foundation system may be used. Such a foundation system may be very appropriate for larger buildings, particularly buildings with a below-grade level, as the lower overall bearing pressures using a mat foundation can be at least partially offset by the removal of existing soil load. Post-tensioned foundations may be more appropriate for use in smaller, square or rectangular-shaped buildings. The structural mat or post-tensioned slab foundation should bear on competent native materials with at least the uppermost two feet of the supporting subgrade soils compacted or reworked, as applicable, to engineered fill standards. We note that excavations to depth may expose oversaturated soils, the surface of which may be unstable to construction equipment and which would require subgrade stabilization such as lime treatment to allow construction equipment to operate on the subgrade and construct the foundation.

The following design parameters are presented for preliminary/ cost estimating design purposes for a structural mat foundation. An average allowable dead plus live bearing pressure of 2,000 psf may be assumed for preliminary design. To evaluate immediate (distortion) settlement of a mat foundation using an elastic spring constant, a modulus of subgrade reaction value, k_{v1}, of 125 pounds per cubic inch may be assumed for a mat bearing directly on the recommended engineered fill layer, assumed to consist of onsite near-surface clayey soils. The k_{v1} value applies for a 1-foot by 1-foot area and should be divided by the width of the mat B in feet (smaller rectangular dimension) to obtain the k_v value.

Excavation Slopes and Shoring

Subsurface soils encountered during our field investigation consisted primarily of medium stiff to stiff cohesive soils within the uppermost 12 feet of the soil profile. Therefore, we anticipate that temporary cut excavation slopes that do not exceed this depth may be OSHA Type "B" or better, consisting of maximum slope inclinations of 1:1 (horizontal to vertical). Where there is not sufficient space for temporary excavation slopes, conventional cantilever soldier beam and lagging shoring would be feasible, as would soil nailing methods. Where adjacent structures are present to the edge of the anticipated excavations, a restrained shoring system such as a tieback wall may be required, and surcharge load should be assumed in design of the shoring wall. The Contractor, or his specialty shoring subcontractor, should design and install temporary shoring. Soil parameters presented below may be used for preliminary evaluation of temporary shoring. The Contractor should incorporate all appropriate requirements of OSHA into the design of the temporary shoring system.

Lateral Earth Pressures - The following recommended preliminary lateral earth design pressures are based on the assumption that approved on-site soils will be used as wall backfill. For a level backfill condition, unrestrained walls (i.e., walls that are free to deflect or rotate) should be designed to resist an equivalent fluid pressure of 35 pounds per cubic foot. Restrained walls for a level backfill condition should be designed to resist an equivalent fluid pressure of 35 pounds per cubic foot, plus an additional uniform lateral pressure of 7H pounds per square foot, where H = height of backfill above the top of the wall footing, in feet. For seismic design, unrestrained walls and restrained walls with level backfill should be designed to resist an additional uniform load equal to 16H psf, where H equals the height of soil retained by the wall in feet. The seismic load should be added to the *unrestrained* condition in both cases.

Walls with inclined backfill should be designed for an additional equivalent fluid pressure of one pound per cubic foot for every two degrees of slope inclination from horizontal. Walls subjected to areal surcharge loads should be designed for an additional uniform lateral pressure equal to 0.33 times the anticipated surcharge load for unrestrained walls, and 0.50 times the anticipated surcharge load for restrained walls.

If the aforementioned lateral pressures are used for the design of shoring systems such as cantilevered solider pile and lagging systems, active and applicable surcharge pressures may be applied to wall lagging, and the recommended passive pressures can be applied across a width of two times the soldier beam pile diameter. To account for temporary or construction surface loads, a minimum lateral wall surcharge of 250 psf should be used

for design. In addition, an average soil unit weight of 120 pcf and an ultimate passive pressure of 400 pcf Equivalent Fluid Pressure (EFP) up to a maximum pressure of 2,500 psf may be used for design.

The lateral earth pressures herein do not include any factor-of-safety and are not applicable for submerged soils/hydrostatic loading. Additional recommendations may be necessary if submerged conditions are to be included in the design. Subsurface drainage of below-grade walls extending less than 12 feet below existing grades would be required only if desired to capture unanticipated surface seepage water, but would not be required on account of a shallow groundwater table.

7.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

The findings and recommendations presented in this feasibility report are valid as of the present time for the development as currently proposed. However, changes in the conditions of the property or adjacent properties may occur with the passage of time, whether by natural processes or the acts of other persons. In addition, changes in applicable or appropriate standards may occur through legislation or the broadening of knowledge. Accordingly the findings and recommendations presented in this report may be invalidated, wholly or in part, by changes outside our control. Therefore, this report is subject to review by Geosphere after a period of five (5) years has elapsed from the date of issuance of this report.

This report was prepared upon your request for our services, and in accordance with currently accepted geotechnical engineering practice. No warranty based on the contents of this report is intended, and none shall be inferred from the statements or opinions expressed herein.

The scope of our services for this report did not include an environmental assessment or investigation for the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, groundwater or air, on, below or around this site. Any statements within this report or on the attached figures, logs or records regarding odors noted or other items or conditions observed are for the information of our client only.

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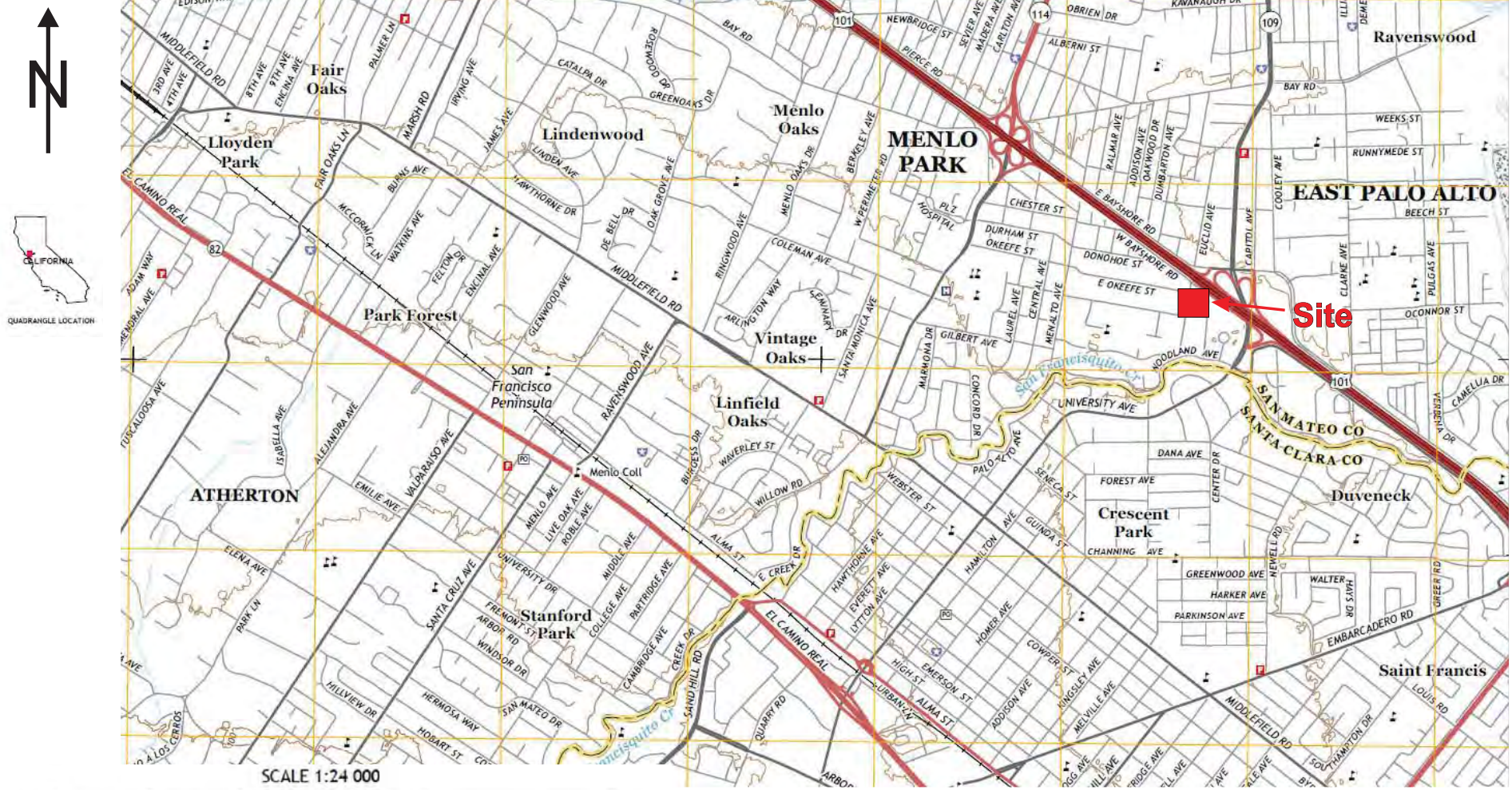
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FIGURES

Figure 1 - Site Vicinity Map
Figure 2 - Site Plan & Site Geology Map
Figure 3 - Site Vicinity Geologic Map
Figure 4 - Regional Fault Map
Figure 5a - Schematic Geologic Cross-Section A-A'
Figure 5b - Schematic Geologic Cross-Section B-B'
Figure 6 - Liquefaction Susceptibility Map



Source: Palo Alto Quadrangle, US Topographic Map 7.5-Minute Series, United States Geological Survey (2015)

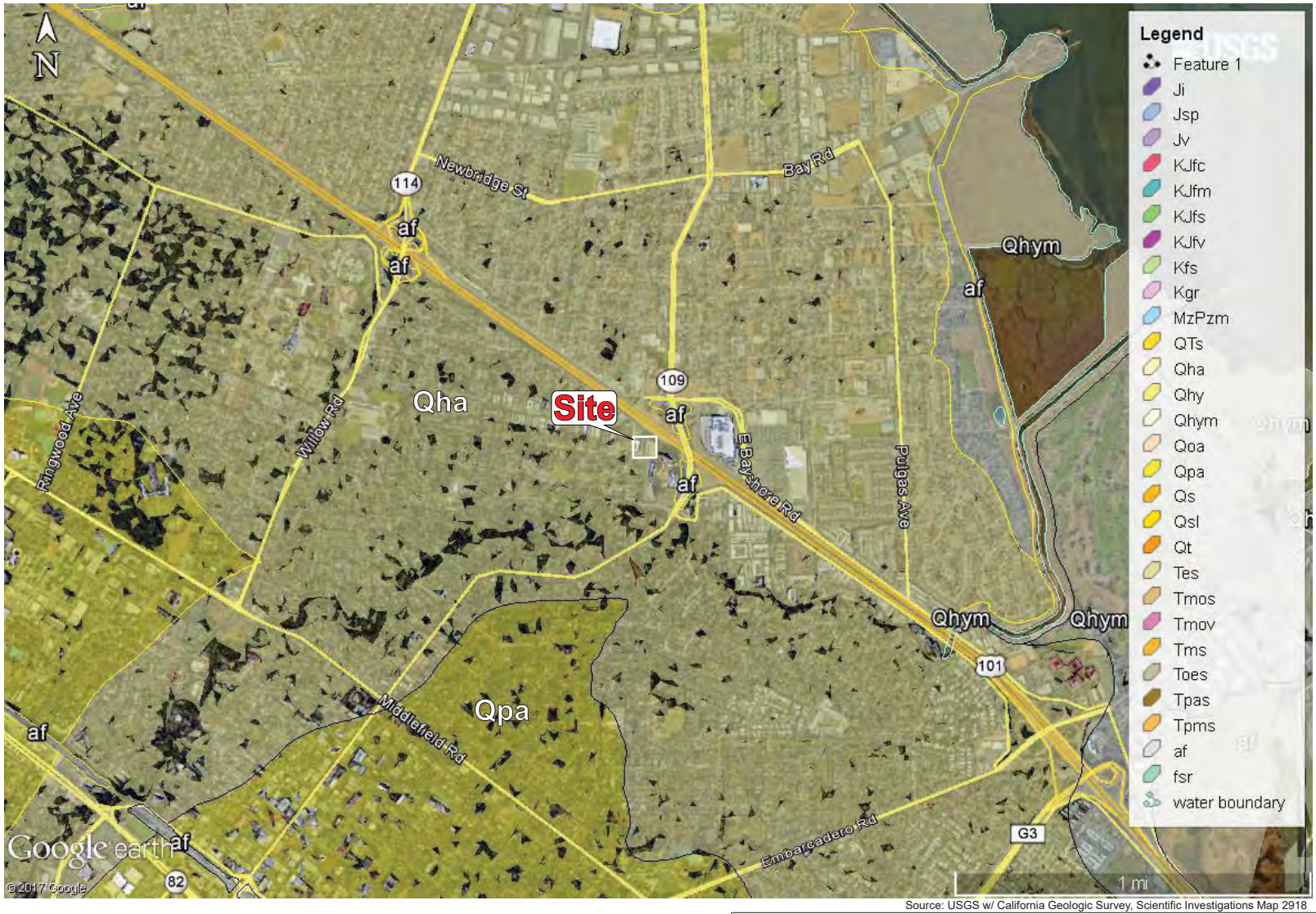
Woodland Park - Euclid Improvements Various Addresses East Palo Alto, California 94025	91-04041-A	September 2019
Geosphere Consultants, Inc.	Site Vicinity Map	Figure 1



- Approximate Boring Location
- Geologic Cross Section
- Approximate Improvement

Qha - Alluvium (Holocene)

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Geosphere Consultants, Inc.	Site Plan & Site Geology Map	Figure 2



Source: USGS w/ California Geologic Survey, Scientific Investigations Map 2918

Qha- Alluvium (Holocene)
Qpa - Alluvium (Pleistocene)

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Geosphere Consultants, Inc.	Site Vicinity Geologic Map	Figure 3

DESCRIPTION	
ON LAND	OFFSHORE
Displacement during historic time (e.g. San Andreas fault 1906). Includes areas of known fault creep.	
Displacement during Holocene time.	Fault offsets seafloor sediments or strata of Holocene age.
Faults showing evidence of displacement during late Quaternary time.	Faults cuts strata of Late Pleistocene age.
Undivided Quaternary faults - most faults in this category show evidence of displacement during the last 1,600,000 years; possible exceptions are faults which displace rocks of undifferentiated Plio-Pleistocene age.	Fault cuts strata of Quaternary age.
Faults without recognized Quaternary displacement or showing evidence of no displacement during Quaternary time. Not necessarily inactive.	Fault cuts strata of Pliocene or older age.

Geologic Time Scale			Years Before Present (Approx.)	Fault Symbol	Recency of Movement
Quaternary	Late Quaternary	Historic			
		Holocene	200		
		Pleistocene	11,700		
	Early Quaternary		700,000		
			1,600,000		
Pre-Quaternary			4.5 billion (Age of Earth)		



Base Map Reference: California Geological Survey - 2010 Fault Activity Map of California

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Geosphere Consultants, Inc.	Regional Fault Map	Figure 4

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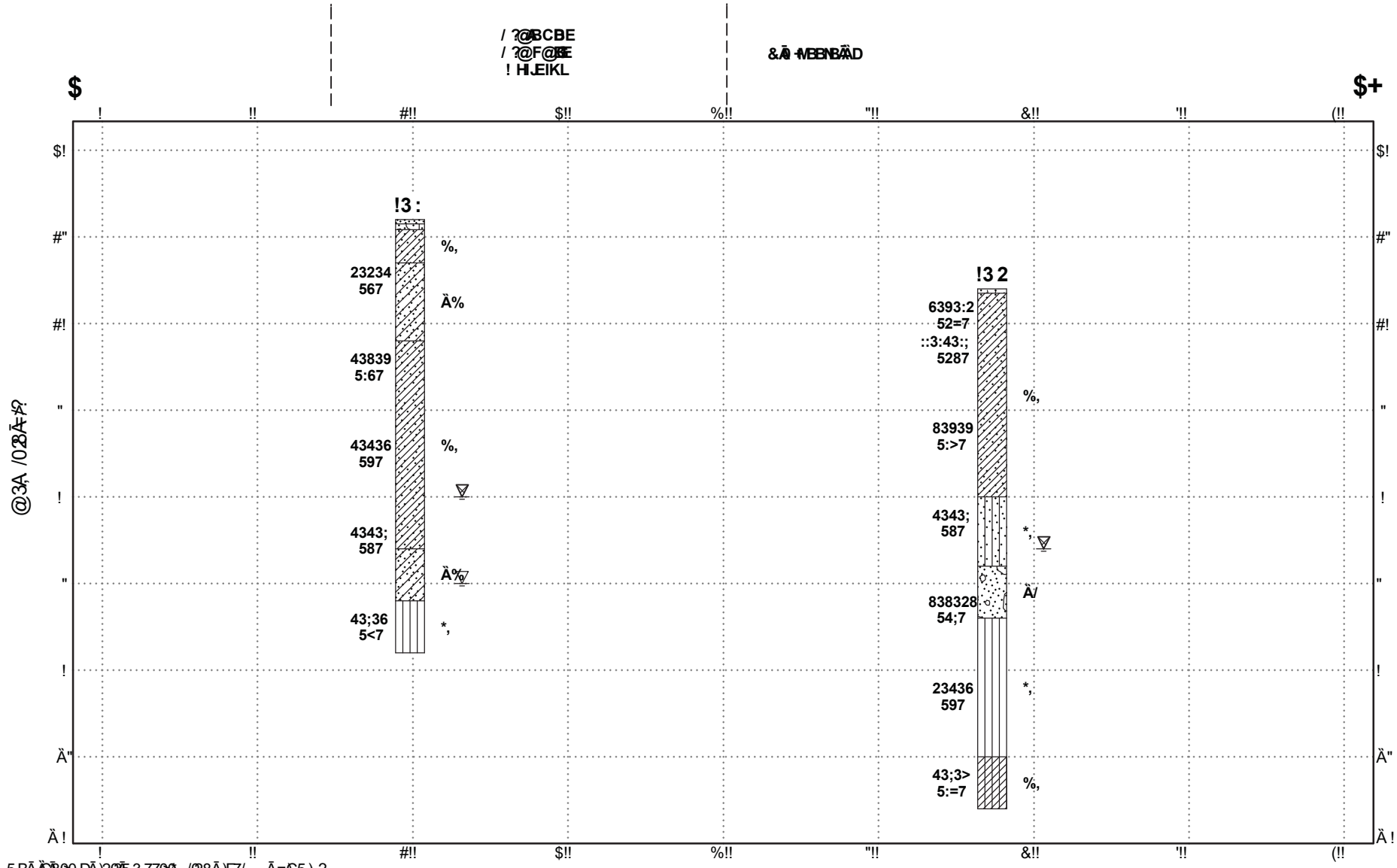
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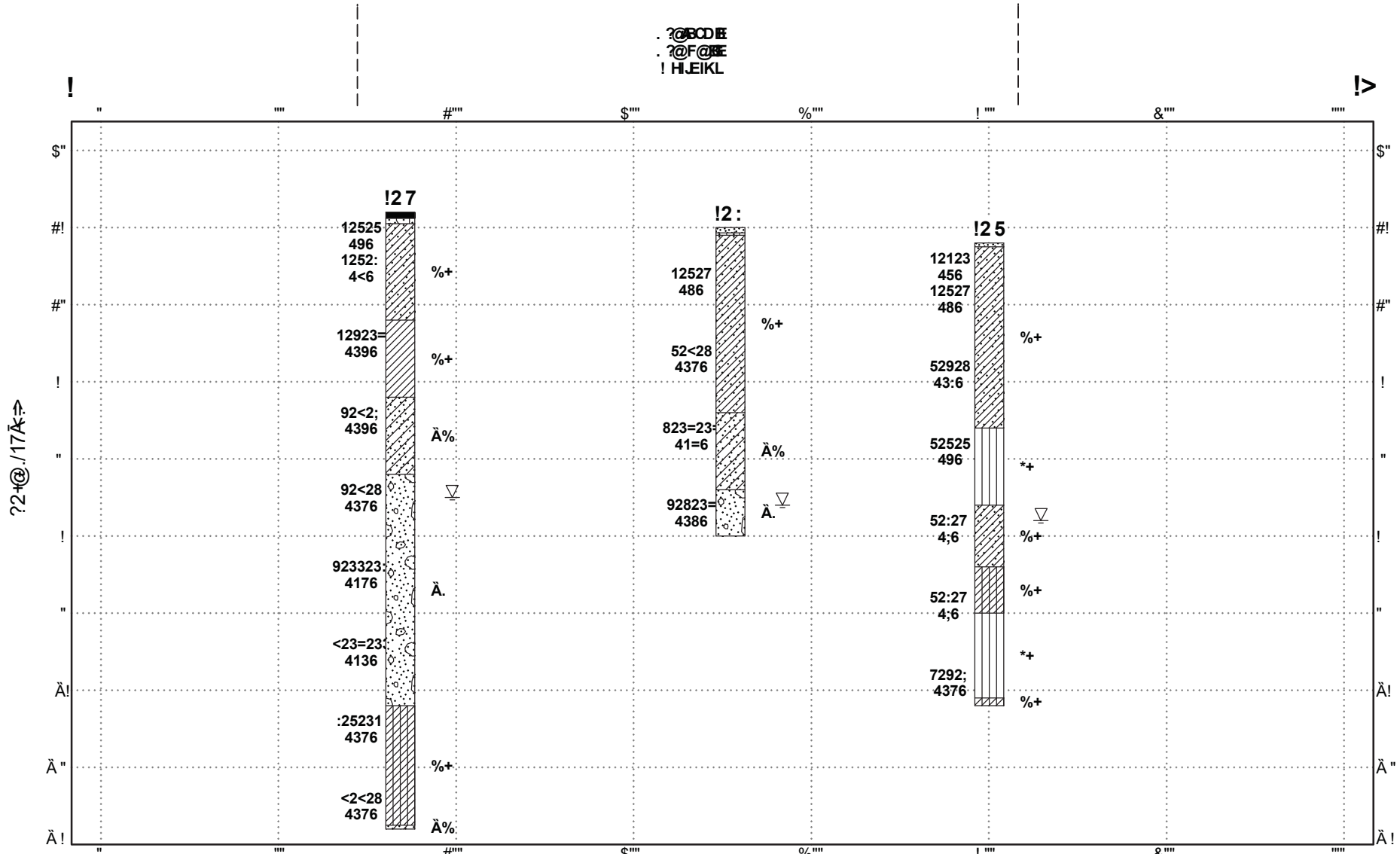
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San Francisco Bay Area Hazards

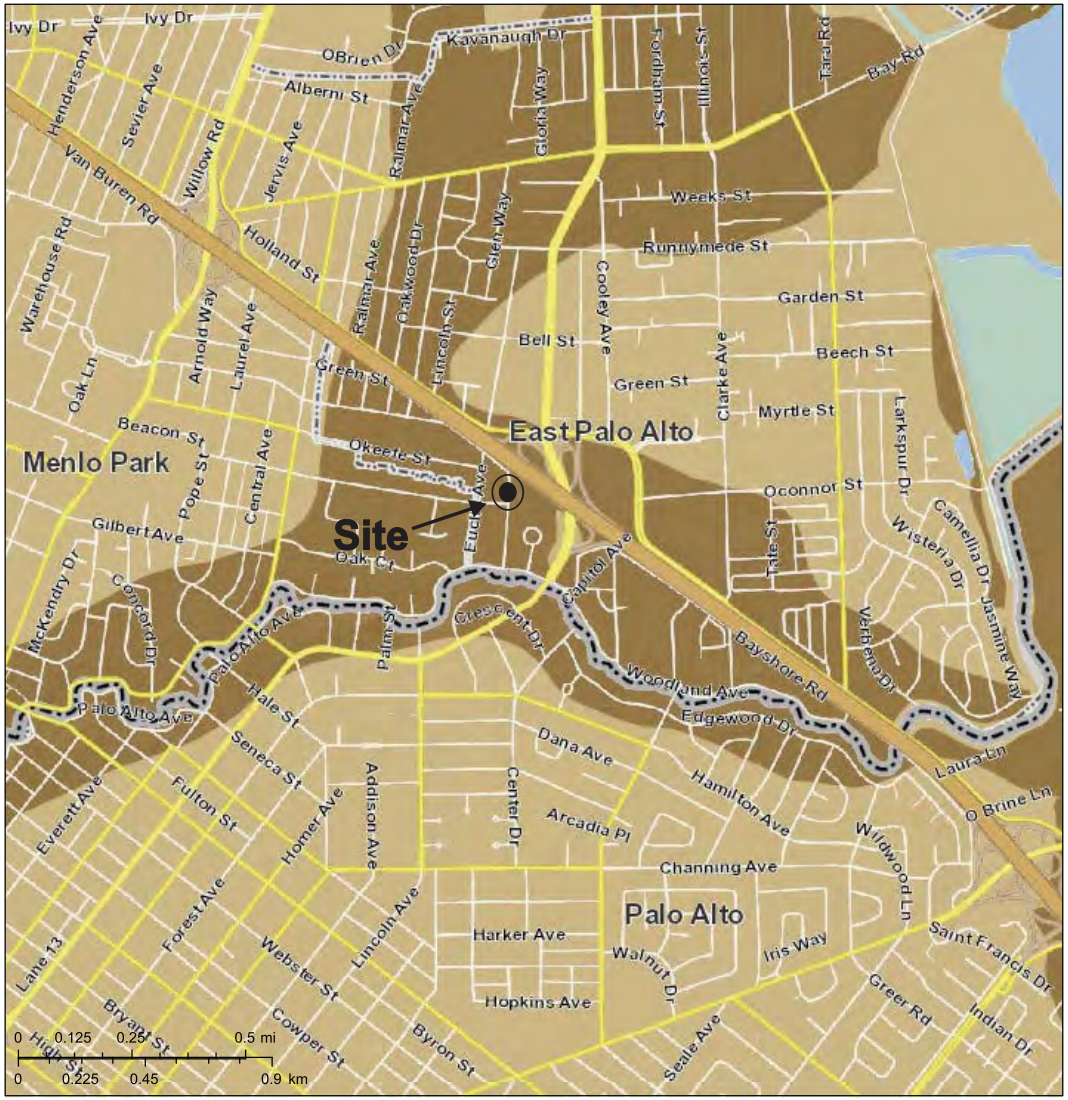
Legend

- Very High Susceptibility
- High Susceptibility
- Moderate Susceptibility
- Low Susceptibility
- Very Low Susceptibility

This map is intended for planning only and is not intended to be site specific. Rather, it depicts the general risk within neighborhoods and the relative risk from community to community.

ASSOCIATION OF BAY AREA GOVERNMENTS
RESILIENCE PROGRAM

November 1, 2017 ABAG GIS



Woodland Park - Euclid Improvements Various Addresses East Palo Alto, California 94025	91-04041-A	September 2019
Geosphere Consultants, Inc.	Liquefaction Susceptibility Map	Figure 6

APPENDIX A

FIELD EXPLORATION
Key to Boring Log Symbols
Boring Logs

UNIFIED SOIL CLASSIFICATION (ASTM D-2487)						
Material Types	**Criteria for Assigning Soil Group Names**			**Group Symbol**	**Soil Group Names**	**Legend**
Coarse Grained Soils	Gravels >50% of Coarse Fraction Passes on No. 4 Sieve	Clean Gravels <5% Fines	Cu≥4 and 1≤Cc≤3	GW	Well-Graded Gravel	
			Cu<4 and/or [Cc<1 or Cc>3]	GP	Poorly-Graded Gravel	
		Gravels with Fines >12% Fines	Fines Classify as ML or MH	GM	Silty Gravel	
>50% Retained on No. 200 Sieve			Fines Classify as CL or CH	GC	Clayey Gravel	
	Sands ≥50% of Coarse Fraction Passes on No. 4 Sieve	Clean Sands <5% Fines	Cu≥6 and 1≤Cc≤3	SW	Well-Graded Sand	
			Cu<6 and/or [Cc<1 or Cc>3]	SP	Poorly-Graded Sand	
		Sands and Fines >12% Fines	Fines Classify as ML or MH	SM	Silty Sand	
			Fines Classify as CL or CH	SC	Clayey Sand	
Fine Grained Soils	Silts and Clays	Inorganic	PI>7 and Plots≥"A" Line	CL	Lean Clay	
			PI<4 and Plots<"A" Line	ML	Silt	
	Liquid Limits<50	Organic	LL (Oven Dried)/LL(Not Dried <0.75)	OL	Organic Silt	
≥50% Passes No. 200 Sieve	Silts and Clays	Inorganic	PI Plots≥"A" Line	CH	Fat Clay	
			PI Plots<"A" Line	MH	Elastic Silt	
	Liquid Limits≥50	Organic	LL (Oven Dried)/LL(Not Dried <0.75)	OH	Organic Clay	
Highly Organic Soils		Primarily Organic Matter, Dark in Color and Organic Odor		PT	Peat	

PENETRATION RESISTANCE (RECORDED AS BLOWS/0.5 FEET)				
SAND AND GRAVEL		SILT AND CLAY		
RELATIVE DENSITY	N-VALUE (BLOWS/FOOT)*	CONSISTENCY	N-VALUE (BLOWS/FOOT)*	COMPRESSIVE STRENGTH
Very Loose	0 - 3	Very Soft	0 - 1	0 - 0.25
Loose	4 - 10	Soft	2 - 4	0.25 - 0.50
Medium Dense	11 - 29	Medium Stiff	5 - 7	0.50 - 1.0
Dense	30 - 49	Stiff	8 - 14	1.0 - 2.0
Very Dense	50 +	Very Stiff	15 - 29	2.0 - 4.0
		Hard	30 +	Over 4.0

SOIL MOISTURE	
DESCRIPTOR	**DESCRIPTION**
Dry	Dry of Standard Proctor Optimum
Damp	Sand Dry
Moist	Near Standard Proctor Optimum
Wet	Wet of Satandard Proctor Optimum
Saturated	Free Water in Sample

PARTICLES SIZES		
COMPONENTS		**SIZE OR SIEVE NUMBER**
Boulders		Over 12 Inches
Cobbles		3 to 12 Inches
Gravels	-Coarse	3/4 to 3 Inches
	-Fine	Number 4 to 3/4 Inch
Sand	-Coarse	Number 10 to Number 4
	-Medium	Number 40 to Number 10
	-Fine	Number 200 to Number 40
Fines (Silt and Clay)		Below Number 200

Grab Bulk Sample

Standard Penetration Test

2.5 Inch Modified California

Shelby Tube

No Recovery

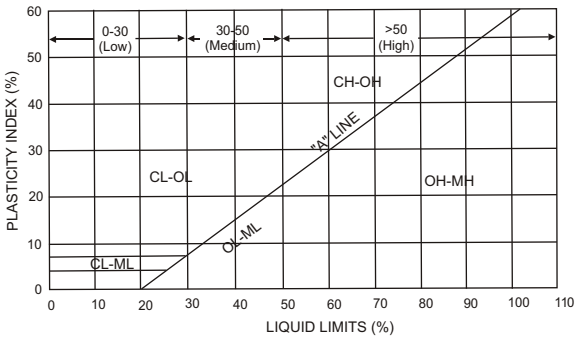
Initial Water Level Reading

Final Water Level Reading

Blow Count
The number of blows of the sampling hammer required to drive the sampler through each of three 6-inch increments. Less than three increments may be reported if more than 50 blows are counted for any increment. The notation 50/5" indicates 50 blows recorded for 5 inches of penetration.

N-Value
Number of blows 140 LB hammer falling 30 inches to drive a 2 inch outside diameter (1-3/8 inch I.D) split barrel sampler the last 12 inches of an 18 inch drive (ASTM-1586 Standard Penetration Test)

PLASTICITY CHART



CU -Consolidated Undrained triaxial test completed. Refer to laboratory results
DS - Results of Direct Shear test in terms of total cohesion (C, KSF) or effective cohesion and friction angles (C', KSF and degrees)
LL - Liquid Limit
PI - Plasticity Index
PP - Pocket Penetrometer test
TV - Torvane Shear Test results in terms of undrained shear strength (KSF)
UC - Unconfined Compression test results in terms of undrained shear strength (KSF)
#200 - Percent passing number 200 sieve
Cu - Coefficient of Uniformity
Cc - Coefficient of Concavity

General Notes

1. The boring locations were determined by pacing, sighting and/or measuring from site features. Locations are approximate. Elevations of borings (if included) were determined by interpolation between plan contours or from another source that will be identified in the report or on the project site plan. The location and elevation of borings should be considered accurate only to the degree implied by the method used.

2. The stratification lines represent the approximate boundary between soil types. The transition may be gradual.

3. Water level readings in the drill holes were recorded at time and under conditions stated on the boring logs. This data has been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, tides, temperature and other factors at the time measurements were made.

4. The boring logs and attached data should only be used in accordance with the report.

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KEY TO EXPLORATORY BORING LOGS

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2001 Crow Canyon Road, Suite 210
San Ramon, CA 94583-5368
Telephone: (925) 314-7180

BORING NUMBER B-1

CLIENT Woodland Park Communities
PROJECT NAME Woodland Park - Euclid Improvements
PROJECT NUMBER 91-04041-A
PROJECT LOCATION East Palo Alto, California 94025
DATE STARTED 10/25/17 **COMPLETED** 10/25/17
GROUND ELEVATION 26 ft **HOLE SIZE** 8"
DRILLING CONTRACTOR Exploration Geoservices Inc.
GROUND WATER LEVELS:
DRILLING METHOD HSA B-53B
▽ **AT TIME OF DRILLING** 21.00 ft / Elev 5.00 ft
LOGGED BY AL **CHECKED BY** CTD
▼ **AT END OF DRILLING** 16.00 ft / Elev 10.00 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	ADJUSTED SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		**3" CONCRETE** **4" AB** (CL) **SANDY CLAY :** Dark brown, moist.										
		(SC) **CLAYEY SAND :** Loose, brown, moist, low plasticity.										
5			MC 1-1		2-2-3 (5)	>4.5	100	12				
		(CL) **SANDY CLAY :** Very stiff, brown, moist, med plasticity.										
10			MC 1-2		3-7-8 (15)	3.0						
15		becomes stiff, more silty, lower plasticity.	MC 1-3		3-3-5 (8)	1.5	113	17				
		▼										
20		(SC) **CLAYEY SAND :** Loose, brown, wet, low plasticity.	MC 1-4		3-3-4 (7)		100	23				
		▽										
		(ML) **CLAYEY SILT :** Stiff, tan brown, wet, med plasticity.										
25			SPT 1-5		3-4-5 (9)							

Bottom of borehole at 25.0 feet.

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BORING NUMBER B-2

CLIENT Woodland Park Communities
PROJECT NAME Woodland Park - Euclid Improvements
PROJECT NUMBER 91-04041-A
PROJECT LOCATION East Palo Alto, California 94025
DATE STARTED 10/25/17 **COMPLETED** 10/25/17
GROUND ELEVATION 22 ft **HOLE SIZE** 8"
DRILLING CONTRACTOR Exploration Geoservices Inc.
GROUND WATER LEVELS:
DRILLING METHOD HSA B-53B
AT TIME OF DRILLING ---
LOGGED BY AL **CHECKED BY** CTD
AT END OF DRILLING 15.00 ft / Elev 7.00 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	ADJUSTED SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		**3" TOPSOIL**										
		(CL) **SANDY CLAY :** Very stiff, brown, dry-moist.	MC 2-1		5-8-12 (20)	>4.5						
5		becomes darker brown, higher moisture, caliche, decomposed organics, m-h plasticity, less sand content.	MC 2-2		11-13-14 (27)	>4.5	111	11	42	18	24	
10		becomes very moist.	MC 2-3		7-8-8 (16)	>4.5	106	14				
15		(SP) **POORLY GRADED SAND WITH GRAVEL :** Medium dense, Brown/black, wet.	SPT 2-4		3-3-4 (7)	0.50						74
20		(ML) **CLAYEY SILT :** Very stiff, tan brown, very moist.	SPT 2-5		7-7-27 (34)							
25		becomes medium stiff, wet.	SPT 2-6		2-3-5 (8)							
30		(CL) **SILTY CLAY :** Stiff, tan, wet, small cemented sand pockets.	SPT 2-7		3-4-6 (10)							

Bottom of borehole at 30.0 feet.

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BORING NUMBER B-3

CLIENT Woodland Park Communities
PROJECT NAME Woodland Park - Euclid Improvements
PROJECT NUMBER 91-04041-A
PROJECT LOCATION East Palo Alto, California 94025
DATE STARTED 10/25/17 **COMPLETED** 10/25/17
GROUND ELEVATION 24 ft **HOLE SIZE** 8"
DRILLING CONTRACTOR Exploration Geoservices Inc.
GROUND WATER LEVELS:
DRILLING METHOD HSA B-53B
▽ **AT TIME OF DRILLING** 18.00 ft / Elev 6.00 ft
LOGGED BY AL **CHECKED BY** CTD
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	ADJUSTED SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		**3" CONCRETE**										
		(CL) **SANDY CLAY :** Soft, dark brown, dry-moist.	MC 3-1		2-2-1 (3)	3.0	90	20				
5		becomes stiff, mottled dark brown/brown.	MC 3-2		2-3-5 (8)							
10		becomes dark brown, higher moisture, trace gravel 1/2".	MC 3-3		3-6-8 (14)	2.3						
		(ML) **CLAYEY SILT :** Med stiff, light brown, very moist. Pc= 1200psf, e_0=0.82, C_{ec}=0.1										
15			MC 3-4		3-3-3 (6)	0.0	93	27				
		▽ (CL) **SANDY CLAY :** Stiff, light brown, very moist, fine sand.										
20			MC 3-5		3-4-5 (9)	1.3	102	23				58
		(CL) **SILTY CLAY :** Brown/grey mix, very moist.										
25		(ML) **CLAYEY SILT :** Stiff, brown/grey mix, very moist.	MC 3-6		3-4-5 (9)	0.25	99	25				
30		(CL) **SILTY CLAY :** Stiff, greenish tan, very moist.	MC 3-7		5-6-9 (15)							

Bottom of borehole at 30.0 feet.

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BORING NUMBER B-4

CLIENT Woodland Park Communities
PROJECT NAME Woodland Park - Euclid Improvements
PROJECT NUMBER 91-04041-A
PROJECT LOCATION East Palo Alto, California 94025
DATE STARTED 10/25/17 **COMPLETED** 10/25/17
GROUND ELEVATION 25 ft **HOLE SIZE** 8"
DRILLING CONTRACTOR Exploration Geoservices Inc.
GROUND WATER LEVELS:
DRILLING METHOD HSA B-53B
▽ **AT TIME OF DRILLING** 18.00 ft / Elev 7.00 ft
LOGGED BY AL **CHECKED BY** CTD
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	ADJUSTED SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		**4" CONCRETE** **2" AB??** (CL) **SANDY CLAY** : Stiff, brown, dry-moist.										
5			MC 4-1		2-3-5 (8)	>4.5	92	12				
10		becomes very stiff, darker brown, moist, trace pebbles, m-h plasticity.	MC 4-2		3-7-8 (15)							
15		(SC) **CLAYEY SAND WITH GRAVEL** : Med dense, brown, moist, angular gravel 1".	SPT 4-3		8-10-10 (20)							
20		▽ (SP) **POORLY GRADED SAND WITH GRAVEL** : Med dense, brown, wet, gravel 1.5".	SPT 4-4		6-8-10 (18)							

Bottom of borehole at 20.0 feet.

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BORING NUMBER B-5

CLIENT Woodland Park Communities
PROJECT NAME Woodland Park - Euclid Improvements
PROJECT NUMBER 91-04041-A
PROJECT LOCATION East Palo Alto, California 94025
DATE STARTED 10/25/17 **COMPLETED** 10/25/17
GROUND ELEVATION 26 ft **HOLE SIZE** 8"
DRILLING CONTRACTOR Exploration Geoservices Inc.
GROUND WATER LEVELS:
DRILLING METHOD HSA B-53B
▽ **AT TIME OF DRILLING** 18.50 ft / Elev 7.50 ft
LOGGED BY AL **CHECKED BY** CTD
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	ADJUSTED SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		**5" AC** / **4" AB??**										
		(CL) **SANDY CLAY** : Med stiff, dark brown, moist, med plasticity.	MC 5-1		2-3-3 (6)	4.0	98	18	42	18	24	
5			MC 5-2		2-3-4 (7)	3.0 3.5	108	17				
		(CL) **LEAN CLAY** : Very stiff, dark brown, moist.										
10			MC 5-3		2-6-10 (16)		106	18				
		(SC) **CLAYEY SAND WITH GRAVEL** : Med dense, brown, moist, fine gravel.										
15			SPT 5-4		6-7-9 (16)							
		(SP) **POORLY GRADED SAND WITH GRAVEL** : Med dense, brown, wet, gravel up to 1". ▽										
20			SPT 5-5		6-7-8 (15)							8
25		gravel content increased.	SPT 5-6	56	6-11-14 (25)							
30		becomes coarse sand, 1.5" gravel plugged at shoe.	SPT 5-7	44	7-10-11 (21)							
		(CL) **SILTY CLAY** : Very stiff, greenish tan, wet.										
35			SPT 5-8		4-3-12 (15)							

(Continued Next Page)

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BORING NUMBER B-5

CLIENT Woodland Park Communities **PROJECT NAME** Woodland Park - Euclid Improvements

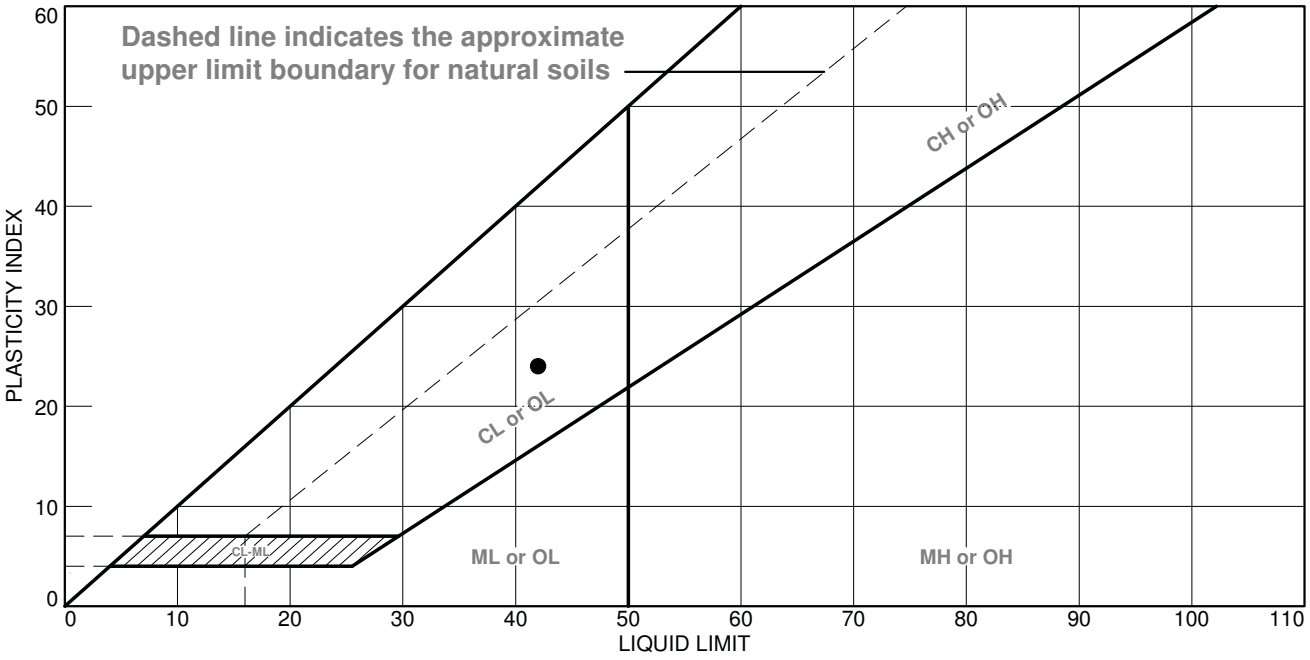
PROJECT NUMBER 91-04041-A **PROJECT LOCATION** East Palo Alto, California 94025

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	ADJUSTED SPT BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
35		(CL) **SILTY CLAY** : Very stiff, greenish tan, wet. *(continued)*										
			MC 5-9		7-7-8 (15)							
40		(SC) **CLAYEY SAND** : Last 3", med dense, greenish tan, wet.										
		Bottom of borehole at 40.0 feet.										

APPENDIX B

LABORATORY TEST RESULTS
Liquid and Plastic Limits Test Report (2)
Particle Size Distribution Report (3)
Consolidation Test Report

LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Brown Clay Sampled by A. Lim on 11/01/17	42	18	24			

Project No. 9104041A **Client:**

Project: Woodland Park - Euclid Improvements

Location: B2-2 @ 4.5
Sample Number: 10S171113-5

CONSOLIDATED ENGINEERING LABORATORIES

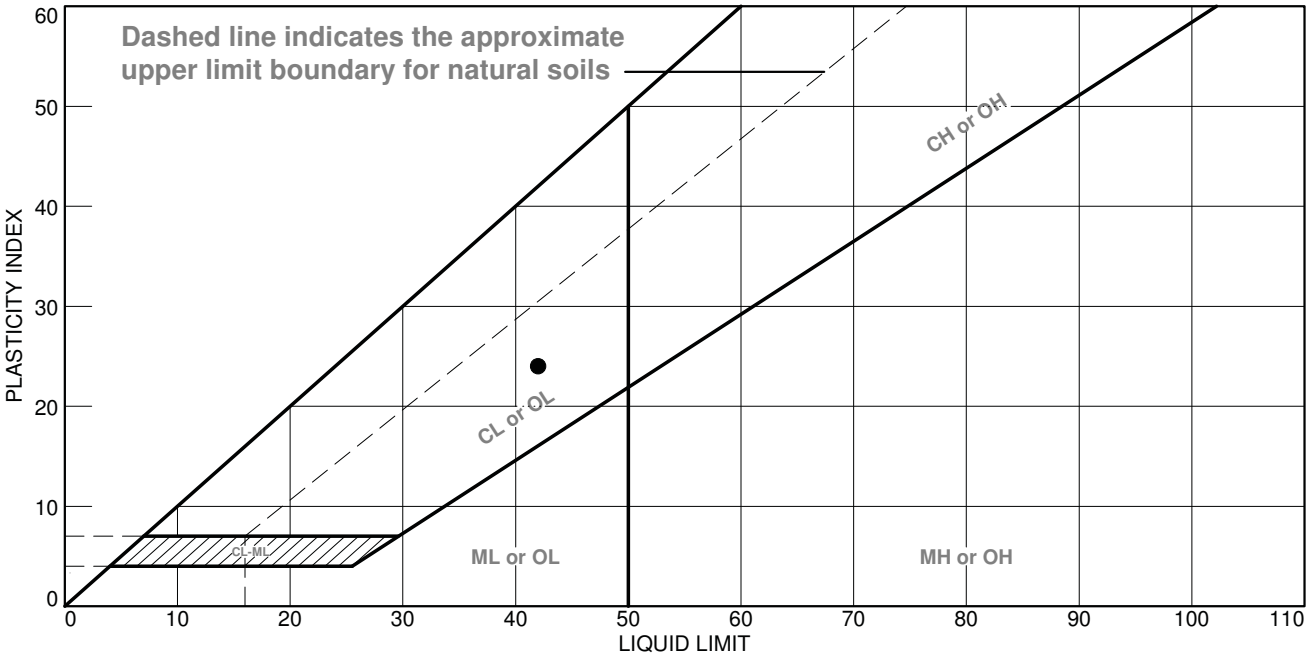
San Ramon, California

Remarks:

Tested By: MT **Checked By:** WY

These results are for the exclusive use of the client for whom they were obtained. They apply only to the samples tested and are not indicitive of apparently identical s

LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Brown Silty Clay Sampled by A. Lim on 11/01/17	42	18	24			

Project No. 9104041A **Client:**

Project: Woodland Park - Euclid Improvements

Location: B5-1 @ 2.5
Sample Number: 10S171113-5

CONSOLIDATED ENGINEERING LABORATORIES

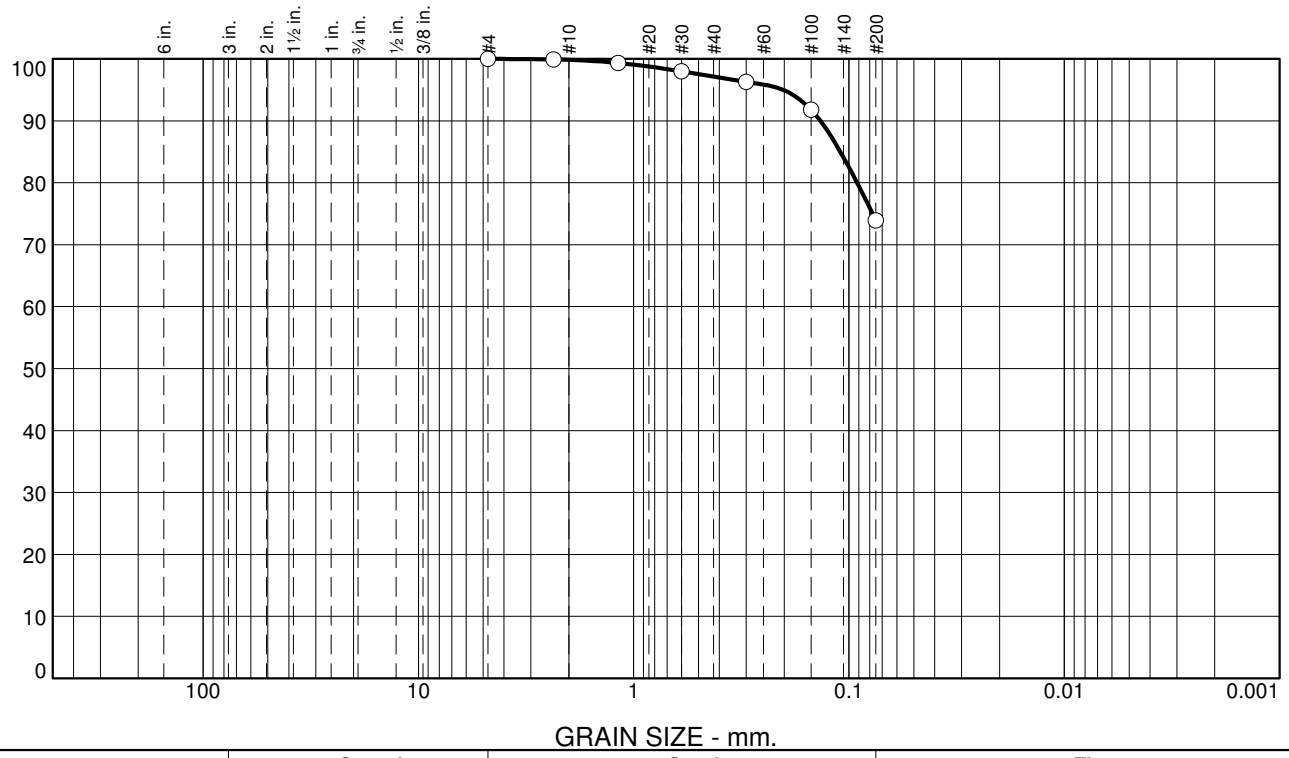
San Ramon, California

Remarks:

Tested By: MT **Checked By:** WY

These results are for the exclusive use of the client for whom they were obtained. They apply only to the samples tested and are not indicitive of apparently identical s

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.2	2.7	23.2	73.9	

TEST RESULTS

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#4	100.0		
#8	99.9		
#16	99.3		
#30	98.0		
#50	96.3		
#100	91.8		
#200	73.9		

* (no specification provided)

Material Description

Tan Sandy Clay
Sampled by A. Lim on 11/07/17

Atterberg Limits (ASTM D 4318)

PL= LL= PI=

Classification

USCS (D 2487)= AASHTO (M 145)=

Coefficients

D_{90}= 0.1359 D_{85}= 0.1097 D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: **Date Tested:** 11/11/17

Tested By: MT

Checked By: WY

Title:

Location: B2-4 @ 13.5
Sample Number: 10S171113-5

Date Sampled:

CONSOLIDATED ENGINEERING LABORATORIES

San Ramon, California

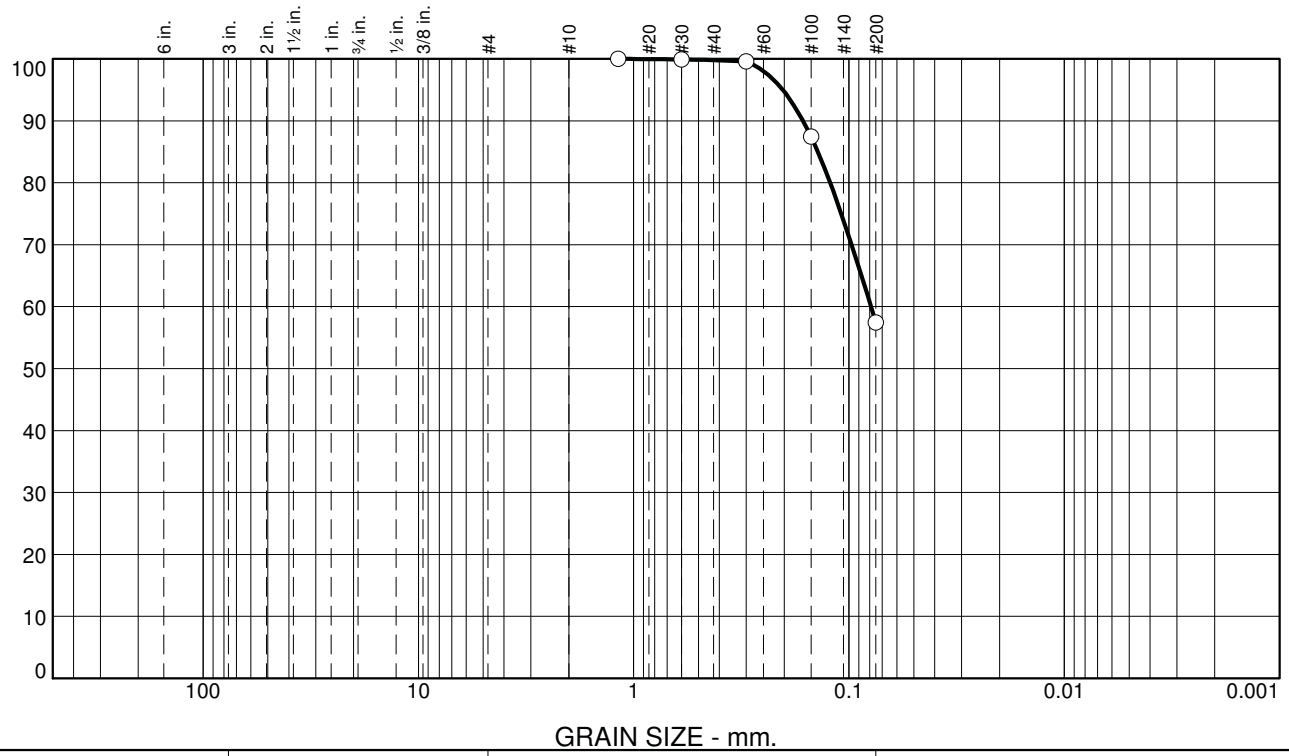
Client:

Project: Woodland Park - Euclid Improvements

Project No: 9104041A

These results are for the exclusive use of the client for whom they were obtained. They apply only to the samples tested and are not indicitive of apparently identical samples

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.2	42.3	57.5	

TEST RESULTS

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#16	100.0		
#30	99.9		
#50	99.6		
#100	87.4		
#200	57.5		

* (no specification provided)

Material Description

Brown Sandy Clay
Sampled by A. Lim on 11/01/17

Atterberg Limits (ASTM D 4318)

PL= LL= PI=

Classification

USCS (D 2487)= AASHTO (M 145)=

Coefficients

D_{90}= 0.1635 D_{85}= 0.1395 D_{60}= 0.0790
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: **Date Tested:** 11/11/17

Tested By: MT

Checked By: WY

Title:

Location: B3-5 @ 19.5
Sample Number: 10S171113-5

Date Sampled:

CONSOLIDATED ENGINEERING LABORATORIES

San Ramon, California

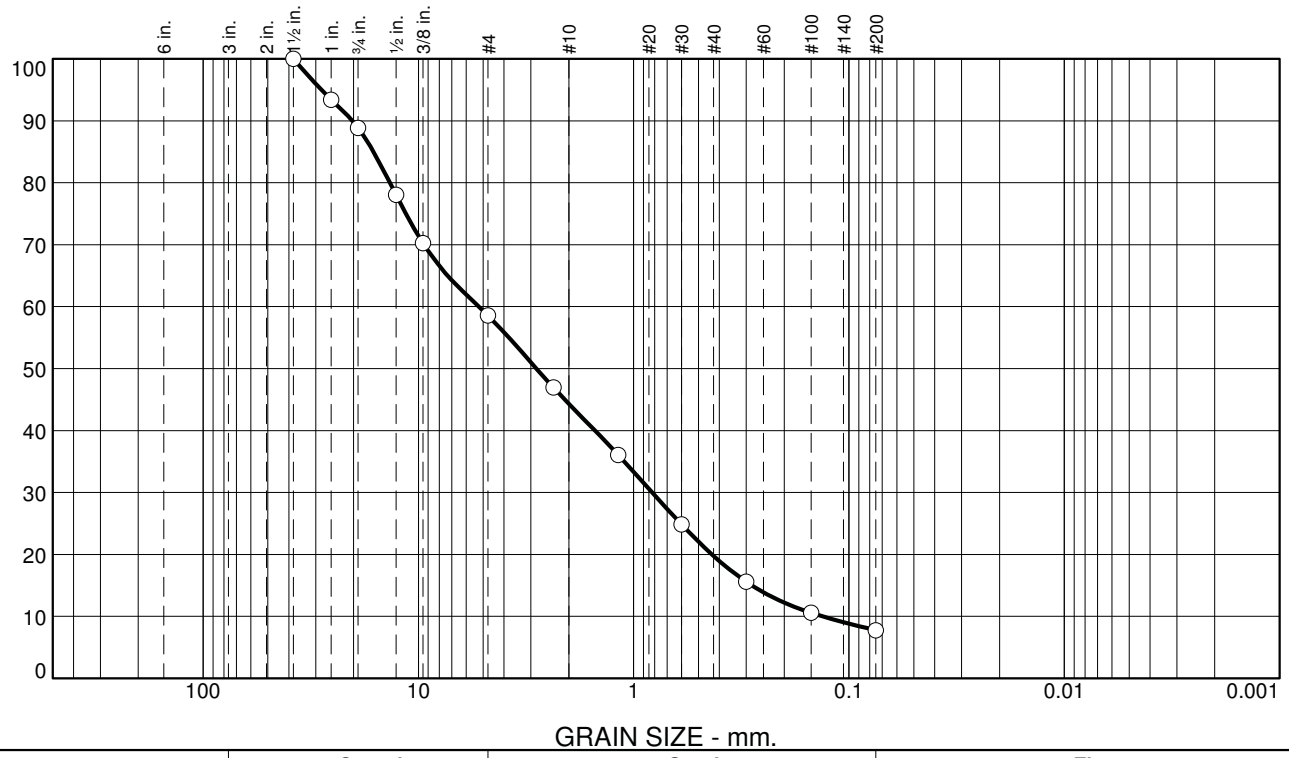
Client:

Project: Woodland Park - Euclid Improvements

Project No: 9104041A

These results are for the exclusive use of the client for whom they were obtained. They apply only to the samples tested and are not indicitive of apparently identical samples

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	11.1	30.3	14.3	24.5	12.0	7.8	

TEST RESULTS

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
1-1/2"	100.0		
1"	93.4		
3/4"	88.9		
1/2"	78.0		
3/8"	70.3		
#4	58.6		
#8	47.0		
#16	36.1		
#30	24.9		
#50	15.6		
#100	10.6		
#200	7.8		

* (no specification provided)

Material Description

Brown Clayey Sand w/ Gravel
Sampled by A. Lim on 11/01/17

Atterberg Limits (ASTM D 4318)

PL= LL= PI=

Classification

USCS (D 2487)= AASHTO (M 145)=

Coefficients

D_{90}= 20.2423 D_{85}= 16.1839 D_{60}= 5.2390
D_{50}= 2.8294 D_{30}= 0.8195 D_{15}= 0.2826
D_{10}= 0.1322 C_u= 39.64 C_c= 0.97

Remarks

Date Received: **Date Tested:** 11/11/17

Tested By: MT

Checked By: WY

Title:

Location: B5-5 @ 18.5
Sample Number: 10S171113-5

Date Sampled:

CONSOLIDATED ENGINEERING LABORATORIES

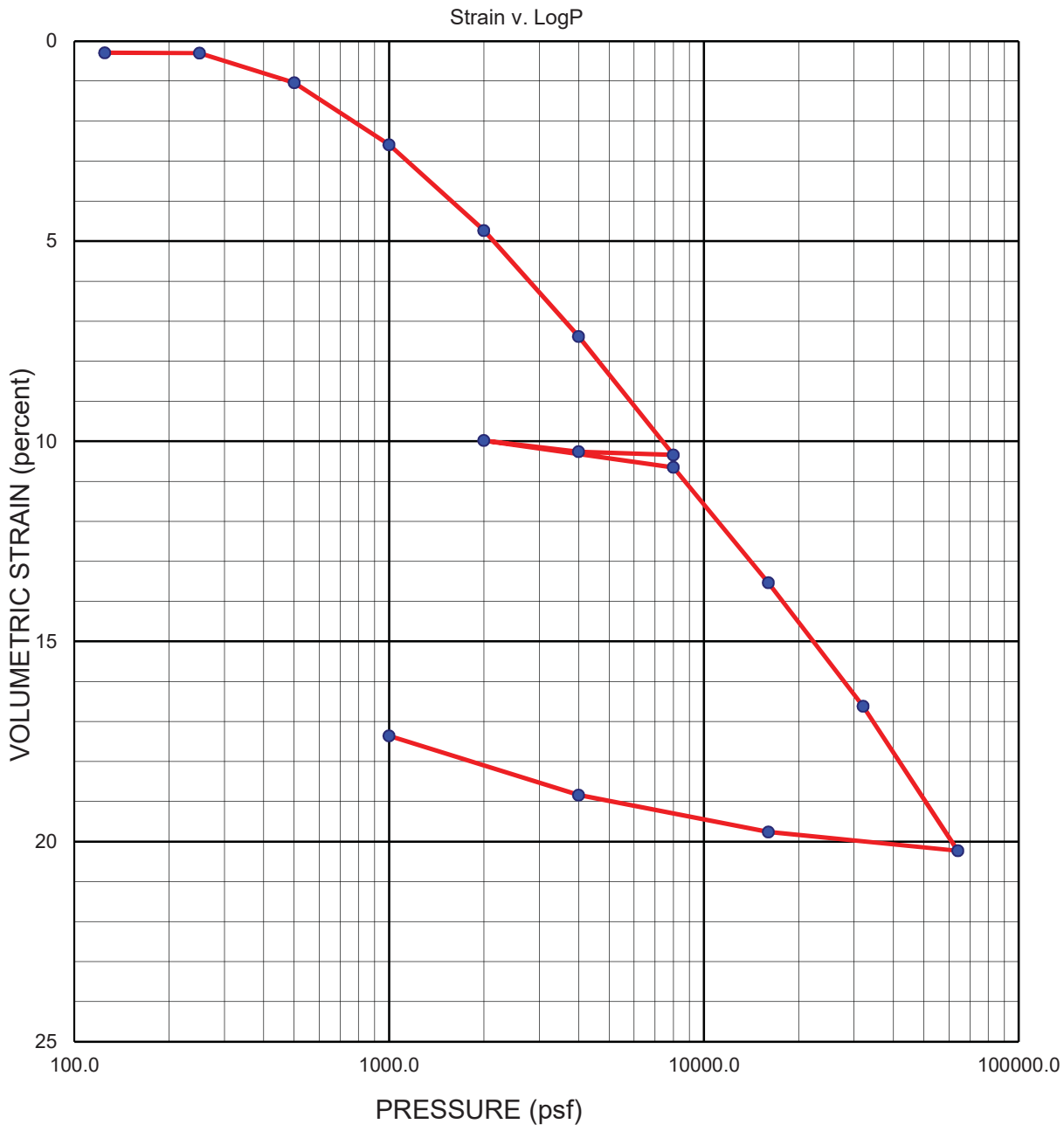
San Ramon, California

Client:

Project: Woodland Park - Euclid Improvements

Project No: 9104041A

These results are for the exclusive use of the client for whom they were obtained. They apply only to the samples tested and are not indicitive of apparently identical samples



Sampler Type: Mod Cal				Condition	Before Test			After Test		
Diameter (in)	2.00	Height (in)	0.75	Water Content	w_o	26.8	%	w_f	18.5	%
Overburden Pressure, p_o			psf	Void Ratio	e_o	0.82		e_f	0.50	
Preconsol. Pressure, p_c			psf	Saturation	S_o	89.2	%	S_f	100	%
Compression Ratio, $C_{\varepsilon c}$				Dry Density	γ_d	93	pcf	γ_d	113	pcf
Recompression Ratio, $C_{\varepsilon r}$		LL		PL	PI			G_s	2.72	(assumed)
Source:	B-3 at 14.5 feet									
Description:	Dark yellowish brown CLAY									

Woodland Park - Euclid Improvements

CONSOLIDATION TEST REPORT

B. HILLEBRANDT SOILS TESTING, INC

Date 11/02/17 Project #: 91-04041-A

APPENDIX C

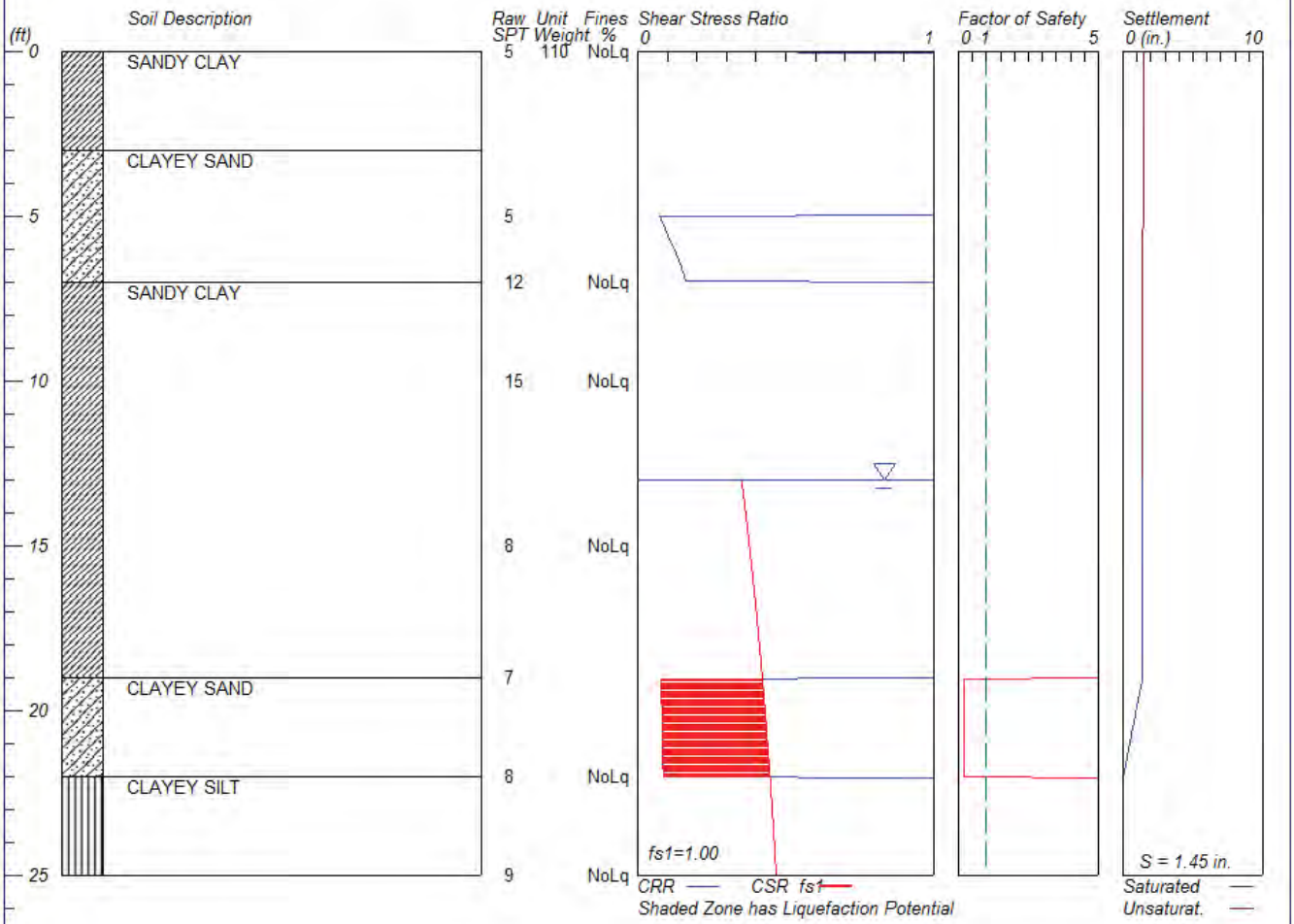
LIQUEFACTION EVALUATION RESULTS

LIQUEFACTION ANALYSIS

Woodland Park - Euclid Improvements

Hole No.=B-1 Water Depth=13 ft Surface Elev.=26

Magnitude=7.9
Acceleration=.556g



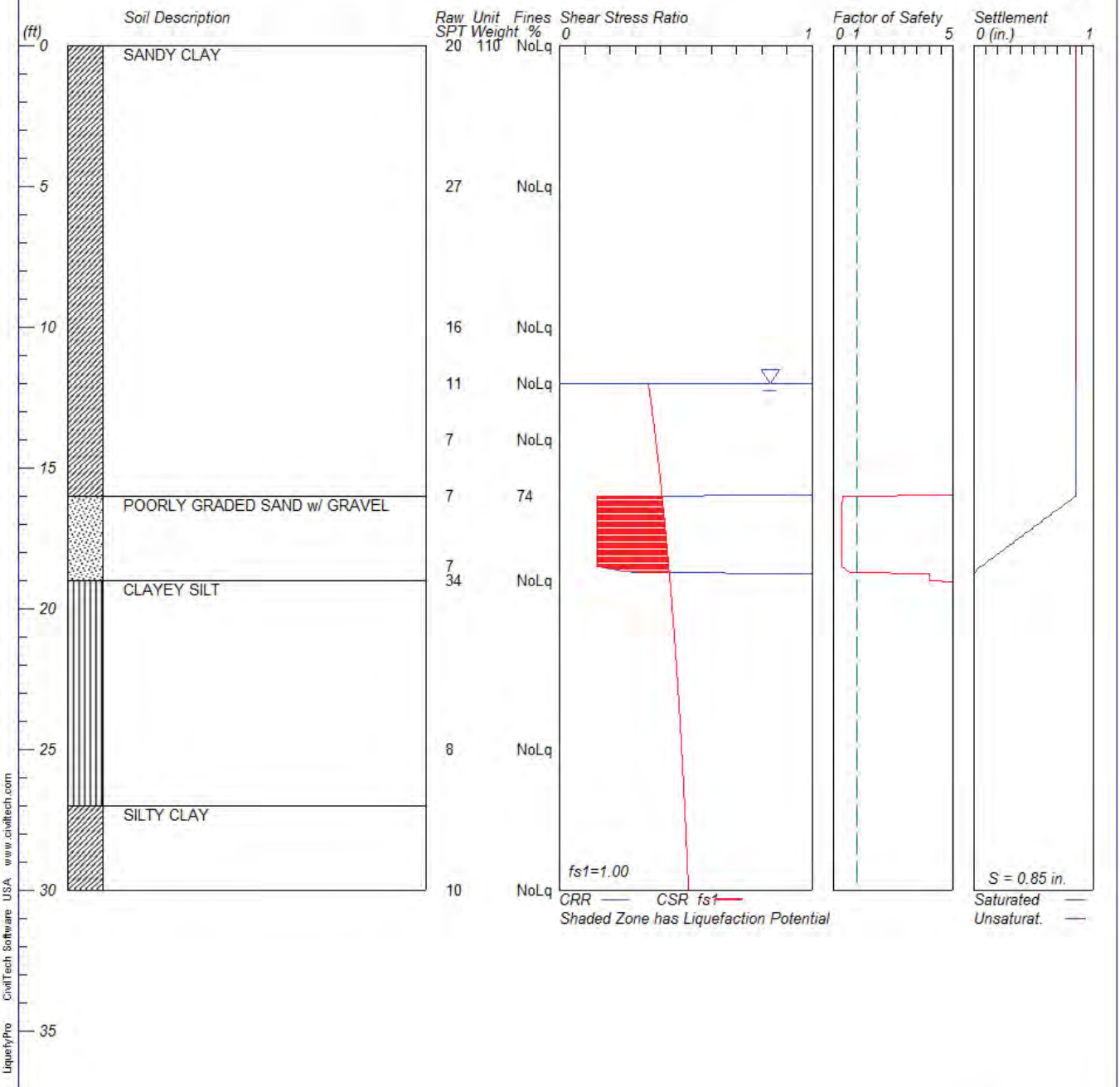
LiquefyPro CivilTech Software USA www.civiltech.com

LIQUEFACTION ANALYSIS

Woodland Park - Euclid Improvements

Hole No.=B-2 Water Depth=12 ft Surface Elev.=22

Magnitude=7.9
Acceleration=.556g



CivilTech Corporation

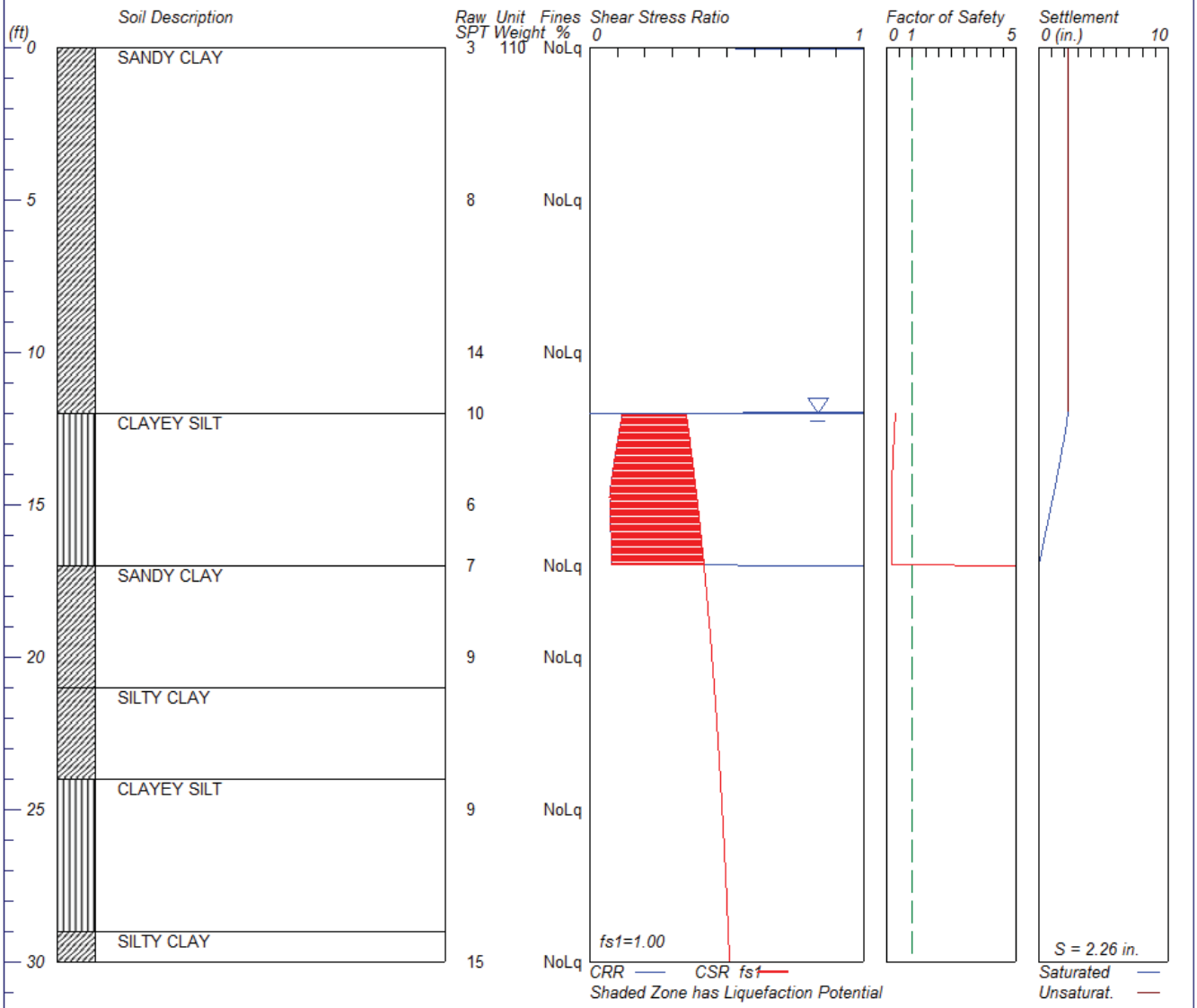
Plate A-1

LIQUEFACTION ANALYSIS

Woodland Park - Euclid Improvements

Hole No.=B-3 Water Depth=12 ft Surface Elev.=22

Magnitude=7.9
Acceleration=.556g



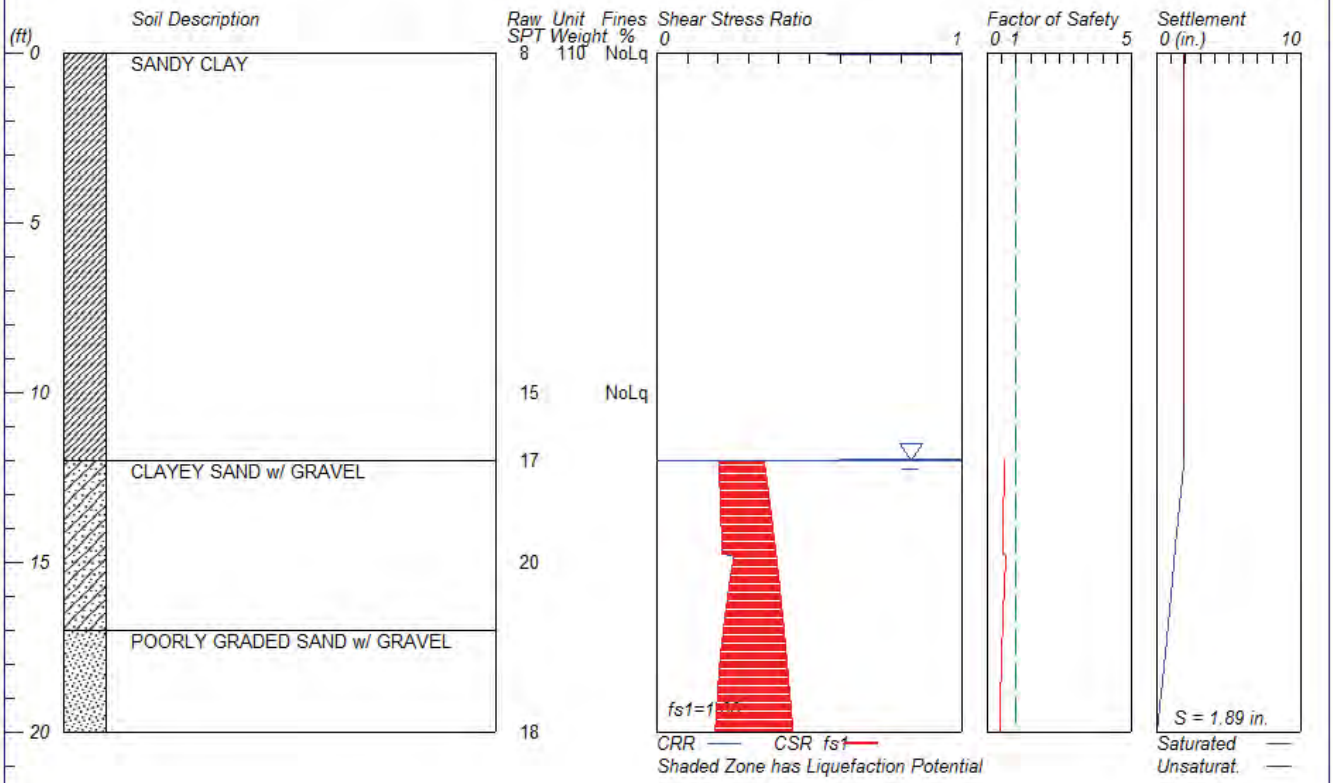
LiquefyPro CivilTech Software USA www.civiltech.com

LIQUEFACTION ANALYSIS

Woodland Park - Euclid Improvements

Hole No.=B-4 Water Depth=12 ft Surface Elev.=22

Magnitude=7.9
Acceleration=.556g



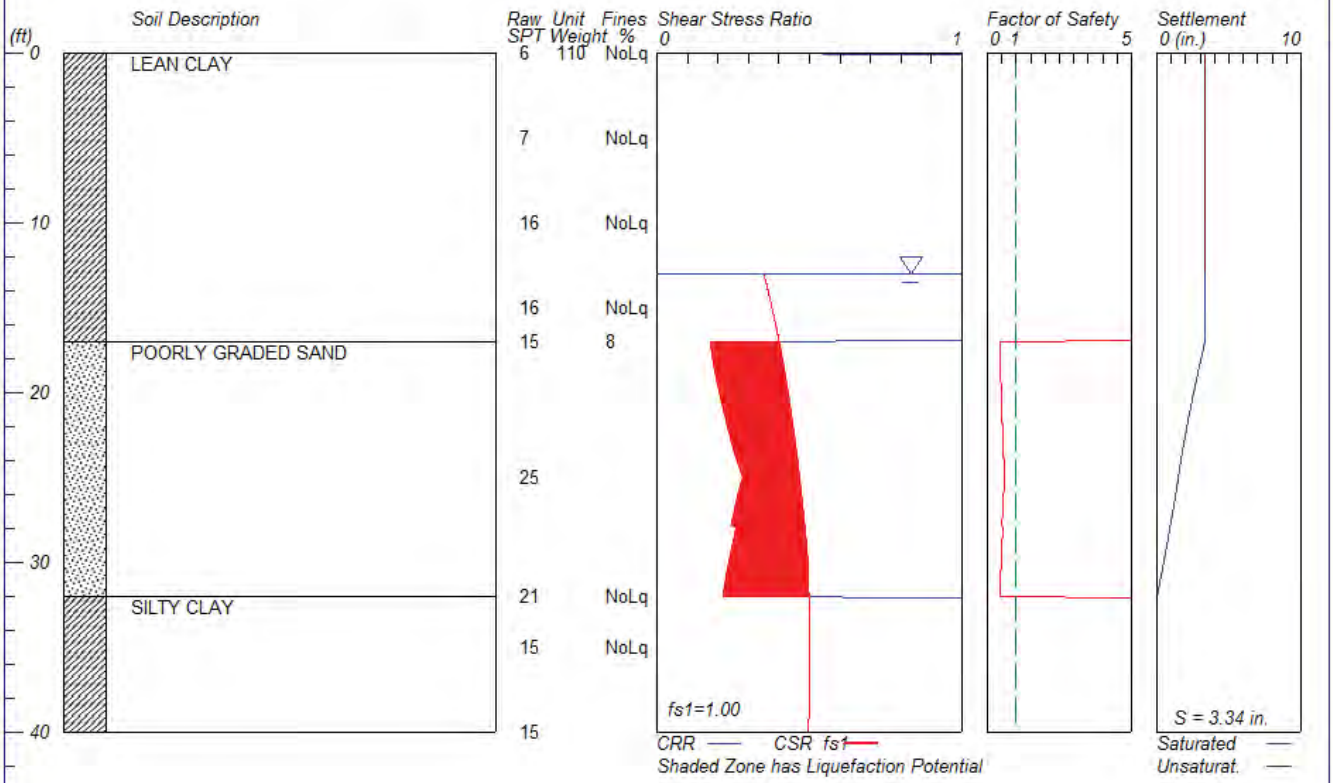
LiquefyPro CivilTech Software USA www.civiltech.com

LIQUEFACTION ANALYSIS

Woodland Park - Euclid Improvements

Hole No.=B-5 Water Depth=13 ft Surface Elev.=26

Magnitude=7.9
Acceleration=.556g



LiquefyPro CivilTech Software USA www.civiltech.com

Appendix F

Woodland Park Communities Phase I Environmental Site Assessment

WOODLAND PARK COMMUNITIES

PHASE I ENVIRONMENTAL SITE ASSESSMENT

WOODLAND PARK – EUCLID IMPROVEMENTS AREA
EAST PALO ALTO, CALIFORNIA

SEPTEMBER 27, 2019

wsp

PHASE I ENVIRONMENTAL SITE ASSESSMENT

WOODLAND PARK – EUCID IMPROVEMENTS AREA
EAST PALO ALTO, CALIFORNIA

WOODLAND PARK COMMUNITIES

SEPTEMBER 27, 2019

WSP USA, Inc.
2025 Gateway Place
Suite 348
San Jose, CA 95110
Tel: +1 408 453-6100
WSP.com

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EXECUTIVE SUMMARY

WSP conducted a Phase I environmental site assessment of the 15 properties within the Woodland Park Apartments Euclid Improvements area located in East Palo Alto, San Mateo County, California, at the request of Woodland Park Communities. The Phase I environmental site assessment was conducted in accordance with the U.S. Environmental Protection Agency Standards and Practices for All Appropriate Inquiries as required under Section 101(35)(B) of the Comprehensive Environmental Response, Compensation, and Liability Act and referenced in Title 40 Code of Federal Regulations, Part 312; the ASTM International Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-13); and WSP proposal to Sand Hill Property Company for the work, dated September 3, 2019.

The goal of this Phase I environmental site assessment was to identify recognized environmental conditions in connection with the subject property based on a records review, the site visit, and interviews. Key definitions from ASTM E 1527-13 that serve as the basis for WSP's findings are included in Appendix A.

The subject properties are approximately 3.9 acres with 161 living units within a portion of a large residential area in East Palo Alto, California known as the Woodland Park Apartments. The area is within a portion of the Woodland Park Apartments properties, located north of University Avenue and consisting of the following addresses:

- 2021 Euclid Avenue- 11 units
- 2025 Euclid Avenue- 7 units
- 2031 Euclid Avenue-12 units/laundry room
- 2041 Euclid Avenue (a.k.a. 420 O'Keefe) - Community engagement office
- 2043 Euclid Avenue- Resident services office
- 2012 Euclid Avenue- 10 units/laundry room
- 2032 Euclid Avenue- single family rental
- 2036 Euclid Avenue- 4 units
- 2040 & 2042 Euclid Avenue- 2 units
- 2044 Euclid Avenue- 2 units
- 2054 Euclid Avenue- 8 units
- 501 O'Connor Street- 12 units/laundry room
- 2001 Manhattan Avenue- 60 units/laundry room
- 2033 Manhattan Avenue- 32 units/laundry room

The area consists of fifteen residential buildings containing 161 units. Operations conducted onsite include leasing/occupation of residential units, maintenance and repairs of residential units, community engagement efforts, and coin-operated laundry rooms. The subject properties are owned by Sand Hill

Property Company with the residential areas constructed between 1922 (oldest buildings) and 1961 (newest).

Before their acquisition of the subject properties in 2011, Equity Residential elected to perform screening sampling of soil to evaluate whether there may be a potential for elevated pesticide levels remaining from the pre-1940 agricultural use. Composite soil samples from various locations were collected in August 2011. The results from the soil sampling in the Euclid Improvements Area (Zone 1) indicated that pesticides were not present in the soils.

WSP makes the following observations regarding environmental management at the Woodland Park Apartments area:

- An Asbestos Operations & Maintenance (O&M) Plan was developed in 2014. WSP recommends continued implementation of the Asbestos O&M Plan with necessary precautions taken prior to any renovation or demolition of asbestos-containing material (ACM) areas.
- A Lead Based Paint O&M Plan exists and should continue to be implemented so that necessary precautions are taken prior to any renovation or demolition of painted surfaces.

1 INTRODUCTION

1.1 GENERAL

WSP conducted a Phase I environmental site assessment of 15 properties as part of the Woodland Park Apartments located in East Palo Alto, San Mateo County, California, at the request of Woodland Park Communities. The Phase I environmental site assessment was conducted in accordance with the U.S. Environmental Protection Agency (EPA) Standards and Practices for All Appropriate Inquiries (AAI) as required under Section 101(35)(B) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as specified in Title 40 Code of Federal Regulations (CFR), Part 312; the ASTM International Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-13); and the WSP's proposal to Sand Hill Property Company for the work, dated September 3, 2019.

The goal of this Phase I environmental site assessment was to identify recognized environmental conditions in connection with the subject property based on a records review, the site visit, and interviews. Key definitions from ASTM E 1527-13 that serve as the basis for WSP's findings are included in Appendix A.

The assessment is based on a visit to the sites by Rick Freudenberger, executive vice president of WSP. Mr. Freudenberger and Ms. Mitton's resumes are included in Appendix B. Mr. Freudenberger were assisted on the site visit by Pat Coffey, vice president of operations of Woodland Park Communities, and Enrique Abedolla, facilities manager of Alliance Residential.

The following work was conducted during completion of the environmental assessment:

- A site visit to the Woodland Park Apartments Euclid Improvements area was conducted on September 6, 2019. The site visit consisted of an inspection of the exterior of the residential units; interior inspection of common areas of several residential buildings; and laundry rooms
- The interiors of residential units and retail stores were not inspected as part of this assessment. Additionally, the back yards and roof areas of each residential home and residential building were not inspected.
- Relevant environmental documents were reviewed including soil management plans and inspections, lead-based paint sampling results and asbestos-containing materials documents.
- Photographs of the site were taken to document conditions during the site visit and to highlight potential environmental concerns. The photographs are presented in Appendix C.
- WSP conducted interviews with the following people:
- Pat Coffey, a representative of Woodland Park Communities (WPC), the current property owner. Mr. Coffey has been associated with the subject properties for approximately 3 years. WPC has owned the property for approximately 3.5 years.
- Enrique Abedolla, facilities manager of Alliance Residential for the Woodland Park Apartments.
- WSP was unable to contact previous site owners. The significance of this data gap is discussed in Section 5.

- Woodland Park Communities, the "user" of this Phase I environmental site assessment to obtain information relevant to identifying the possibility of a recognized environmental condition in connection with the subject property.
- WSP retained Environmental Data Resources, Inc. (EDR), to conduct a database search of the site and properties within AAI- and ASTM-specified search radii to identify releases or threatened releases and to help assess the likelihood of problems from migrating hazardous substances or petroleum products. The search (including the approximate minimum search distances) was conducted in accordance with the standards established by Section 101(35)(B) of CERCLA, 40 CFR 312.26, and ASTM E 1527-13. The results of the database search are presented in Appendix D.
- WSP also retained EDR to conduct a search for historical records pertaining to the subject property. The records search produced the following results:
- aerial photographs from 1939 to 2012 (Appendix E)
- Sanborn fire insurance maps from 1954, 1968, 1978 (Appendix E)
- historical topographic maps from 1897 to 2012 (Appendix E)
- city directories from 1970 to 2013 (Appendix E)
- WSP reviewed property information available on the San Mateo County Tax Collector database for information on property addresses and assessor parcel numbers.
- WSP requested information from the San Mateo County Department of Environmental Health. A response has not been received to date.
- WSP submitted Freedom of Information Act (FOIA) requests to obtain files from the Menlo Park Fire District, Bay Area Air Quality Management District, San Francisco Bay Regional Water Quality Control Board, and Menlo Park Municipal Water District to verify information identified during the site visit, document review and in the regulatory database search for the subject property and adjoining properties. A response from these agencies has not been received at the time of this report. Information received will be included in the final report or submitted under separate cover.
- WSP reviewed files available on the California State Water Resources Control Board's Geotracker database regarding potential releases at the subject property and adjoining properties.
- A search of engineering and institutional controls on the use of the property, including deed restrictions, was conducted on the San Mateo County Clerk-Recorder's database.
- WSP reviewed the following previous environmental reports:
- Phase I Environmental Site Assessment, Woodland Park Apartments Area-East Palo Alto, California, prepared by WSP, February 22, 2016
- Phase I Environmental Site Assessment at 77-95 Newell Road and 1750-1777 West Bayshore Road in East Palo Alto, California, prepared by Langan Treadwell Rollo, dated October 1, 2015.
- Letter Summary of Phase I Environmental Site Assessments conducted at Zones 1-9 of the Woodland Park properties, prepared by AEI Consultants (AEI), dated February 2010.
- Phase I Environmental Site Assessments conducted at Zones 1-9 of the Woodland Park properties, prepared by AEI, dated February 2010.

- Soil Management Plan for Woodland Park Portfolio in Palo Alto, California prepared for Equity Residential, prepared by Apex Companies, LLC, dated February 10, 2012.
- Soil Management Plan Reporting Logs prepared by Equity Residential, dated February 2010.
- Lead-Based Paint Property Tracker spreadsheet, undated.
- Asbestos Operations and Maintenance Plan for Woodland Park, 5 Newell Court, East Palo Alto, CA, prepared by Cardno ATC Associates, dated September 30, 2014.
- Letter regarding Settlement of Water Quality Claims and Water Quality Test Results from Community Legal Services to Equity Residential, dated July 14, 2015.
- A chain of title was not provided for the subject property.

This Phase I environmental site assessment was conducted in accordance with ASTM E 1527-13. Biological agents, cultural and historic resources, ecological resources, endangered species, health and safety, indoor air quality (except as related to a potential release of a hazardous substance or petroleum product), industrial hygiene, lead in drinking water, mold, radon, regulatory compliance, and wetlands are non-scope considerations under Section 13.1.5 of ASTM E 1527-13 and were not included in WSP's Phase I environmental site assessment process.

1.2 DISCLAIMER

Client acknowledges and agrees that this report was prepared solely on its behalf and functions solely as a Phase I environmental site assessment. By accepting this report Client acknowledges and agrees that it may in part rely upon sources, either written or oral, that WSP considers reliable but which are not guaranteed or independently verified by WSP.

Where Client is required to disseminate this report, either by law or in connection with Client's business activities, to any other party to whom this report is not addressed (the "Third Party"), Client agrees to notify the Third Party of the terms of this disclaimer who in turn shall be bound by such terms. Any Third Party wishing to rely on the information and opinions contained herein does so at its own risk in absence of a written letter of reliance provided by WSP.

1.3 TERM OF REPORT VIABILITY

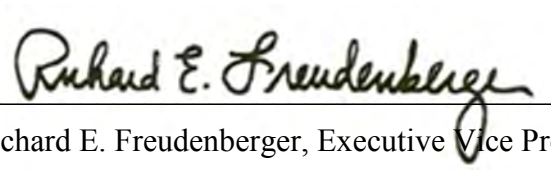
In accordance with ASTM E 1527-13 and AAI, this report is presumed to be valid for a period of up to 180 days before the date of a future property transaction by the intended user. In addition, this report may be used for a period of up to one year before the date of a future property transaction by the intended user, provided that the following components are conducted or updated within 180 days of the date of purchase or the date of the intended transaction:

- interviews with owners, operators, and occupants;
- searches for recorded environmental cleanup liens;
- reviews of federal, tribal, state, and local government records;
- visual reviews of the property and adjoining properties;
- declaration of the environmental professional responsible for the assessment or update.

1.4 ENVIRONMENTAL PROFESSIONAL DECLARATION

This report was prepared by Rick Freudenberger of WSP. Mr. Freudenberger's resume are included in Appendix B.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Richard E. Freudenberger, Executive Vice President

2 SUBJECT PROPERTY

2.1 GENERAL DESCRIPTION

The subject properties are located within a residential area in East Palo Alto, California within the Woodland Park Apartments (Figure 1). The area consists of approximately 3.9 acres of land and includes 15 residential buildings containing units. The subject property area was owned by Equity Residential since approximately 2011 before it was purchased by Woodland Park Communities in 2016.

The single-story, single-tenant units generally consist of stand-alone residential homes, duplexes, and triplexes, constructed of wood frames with stucco and wood exterior walls and shingled roofing. Several homes contain attached and detached residential garages. WSP did not access each residential home to verify this information.

The multi-tenant units are constructed of wood frame with stucco, wood and decorative stone exterior walls. Below grade parking and carports are located at the three larger multi-tenant buildings. There is one elevator in the 2001 Manhattan Avenue building and it is maintained by Kone Elevators of San Leandro, California.

The following is a list of the fifteen properties:

- 2021 Euclid Avenue- 11 units
- 2025 Euclid Avenue- 7 units
- 2031 Euclid Avenue-12 units/laundry room
- 2041 Euclid Avenue (a.k.a. 420 O'Keefe) - Community engagement office
- 2043 Euclid Avenue- Resident services office
- 2012 Euclid Avenue- 10 units/laundry room
- 2032 Euclid Avenue- single family rental
- 2036 Euclid Avenue- 4 units
- 2040 & 2042 Euclid Avenue- 2 units
- 2044 Euclid Avenue- 2 units
- 2054 Euclid Avenue- 8 units
- 501 O'Connor Street- 12 units/laundry room
- 2001 Manhattan Avenue- 60 units/laundry room
- 2033 Manhattan Avenue- 32 units/laundry room

The residential units are equipped with natural gas water heaters and natural gas and electric forced air heaters. None of the residential units are equipped with air conditioning. Landscaping services are provided by Gachina Landscaping. According to facility personnel, no pesticides are stored onsite.

Key features of the Woodland Park Apartments Euclid Improvements area include the following:

- A single-family residential rental
- Multi-family residential homes and apartments
- Resident services office and community engagement office

2.2 ENVIRONMENTAL SETTING

According to the U.S. Geological Survey Palo Alto, California quadrangle (7.5-minute series) map, the ground elevation of the subject property area is approximately 24-28 feet above mean sea level. The site is located on relatively flat land with the subject property area sloping to the north-northeast toward the San Francisco Bay.

No water bodies are present on the subject property. The nearest water body, San Francisquito Creek, is adjacent and south of property area. The marsh and wetlands areas associated with the San Francisco Bay are located approximately 1 mile north of the subject property area. According to the EDR report and groundwater information reviewed on the Geotracker database, groundwater flow direction is to the north-northeast.

The U.S. Department of Agriculture Soil Conservation Service indicates that the soils at the subject property are classified as Urban Land. The soils texture is identified as clay-like with slow infiltration rates. The bedrock underlying the property consists of rocks from the Quaternary Series.

According to the Federal Emergency Management Agency Flood Insurance Rate Map, the subject property is not located within a 100-year flood plain and the site has never flooded.

WSP reviewed wetlands information available from EDR. According to the EDR radius map, wetlands are not present within the subject property area.

2.3 PAST USES

Based on a review of previous environmental reports; Sanborn fire insurance maps from 1954, 1968 and 1978; aerial photographs from 1939 to 2012; and city directories from 1970 to 2012, the subject property area previously included vacant, undeveloped land, agricultural use and residential homes. According to the previous Phase I reports (AEI) the residential homes were constructed between 1922 and 1969 with the majority of the units developed in the 1950s and 1960s.

Equity Residential operated at the site since closing their purchase of the subject properties on December 1, 2011. The previous property owners are identified as Page Mill Properties, LLC. WSP identified the subject property area as previously used for agricultural purposes as far back as 1939.

2.4 PREVIOUS ENVIRONMENTAL REPORTS

The 2010 environmental reports and summaries reviewed by WSP (AEI, 2010) as well as the recent Phase I environmental site assessment by WSP in 2016 identified the following issues:

- No Recognized Environmental Conditions (RECs) were identified by AEI.
- Environmental concerns identified by AEI include the following:
- The potential for ACM to be present in the subject property buildings due to the age of the buildings. AEI noted that all suspect ACM was observed to be in good condition; however, AEI recommended an asbestos survey be conducted prior to any building renovation or demolition.

  WSP observations from Phase I ESA (2016): Based on a review of an ACM tracking spreadsheet provided to WSP, building material samples were collected from approximately 130 of the 142 buildings in 2011 and 2012. Asbestos was identified in various building materials including acoustical ceiling material, HVAC duct material, floor tile and mastic, vinyl floor material, joint and texturing compound. The tracking spreadsheet indicates ACM was removed from many subject property buildings; however, some ACM remains in place at many subject property buildings. An Asbestos Operations & Maintenance (O&M) Plan was developed in 2014. WSP recommends continued implementation of the Asbestos O&M Plan with necessary precautions taken prior to any renovation or demolition of ACM areas.

- The potential for lead-based paint (LBP) to be present due to the age of the subject property buildings. During the 2010 assessment, AEI collected suspect lead-based paint samples at several residential units. Analytical results indicated 0.44% lead, below the Housing and Urban Development's guideline for lead paint of 0.5%. However, AIE noted several areas of damaged painted surfaces and recommended a LBP O&M Plan be prepared and implemented.

  WSP observations from Phase I ESA (2016): At the time of the site visit, WSP did not observe any areas of damaged painted surfaces. WSP reviewed a tracking spreadsheet for LBP identified in subject property buildings in each zone. Additionally, a tracking spreadsheet indicated that vendors of Woodland Park Apartments were notified of the LBP areas onsite between 2013 and 2015. WSP did not review a LBP O&M Plan. A Lead Based Paint O&M Plan exists and should be implemented so that necessary precautions are taken prior to any renovation or demolition of painted surfaces.

- The 2015 environmental report reviewed by WSP (Langan Treadwell Rollo, 2015) identified the following issues:
- The potential for pesticides and select metals in onsite soils due to historic agricultural use is considered a REC.

  Before their acquisition of the subject properties in 2011, Equity Residential elected to perform screening sampling of soil to evaluate whether there may be a potential for elevated pesticide levels remaining from the pre-1940 agricultural use. Composite soil samples from various locations were collected in August 2011. The results from the soil sampling in the Euclid Improvements Area (Zone 1) indicated that pesticides were not present in the soils.

2.5 CURRENT OPERATIONS AND CONDITIONS

The subject property area is used for residential and commercial activities including multi-family residences, coin-operated laundry areas, resident services activities, and community engagement activities. Operations conducted onsite include repair and maintenance of residential units including appliance repair and replacement, landscaping, and building repair and maintenance.

2.5.1 RAW MATERIALS HANDLING AND STORAGE PRACTICES

Woodland Park Apartments stores the following raw materials at the building (2043 Euclid Avenue) behind the leasing center at 2041 Euclid Avenue (a.k.a. 420 East O'Keefe): latex paint in 5-gallon and smaller containers, 1-gallon containers of paint thinner miscellaneous maintenance materials, and general purpose cleaners.

California Proposition 65 warning signs are generally visible on the outside of the apartment buildings and single family units. These required warnings are primarily reflective of the presence of asbestos containing materials and lead based paint within the units.

Both the previous Phase I reports and interviews with facility personnel indicate that current raw materials handling and storage practices are substantially the same as they have been for the past 5 years.

According to facility personnel and reviews of Geotracker and EDR, no reportable spills or releases of raw materials have occurred within the subject property area.

2.5.2 SOLID AND HAZARDOUS WASTE

According to the EDR report from the past Phase I report (WSP 2016), one unit within the Woodland Park Apartments area, 2031 Euclid Avenue, is listed as a generator of hazardous waste from the disposal of ACM in 2010. The property is identified as maintaining an EPA identification number CAC002653307. According to the California Department of Toxic Substances Control, the EPA identification number beginning with "CAC" indicates the number was issued as a state provisional or emergency number and that the property does not routinely generate hazardous waste. No other properties within the subject property area are identified on the EDR report as maintaining an EPA identification number.

Reportedly, the properties currently manage spent fluorescent bulbs and batteries as universal waste. According to facility personnel, spent fluorescent bulbs and batteries are placed in boxes twice a year and sent offsite for recycling.

Nonhazardous wastes generated onsite includes general residential and office trash, commercial wastes generated at the retail stores and restaurant, and household recyclables. Wastes and recycled materials are placed in bins for collection from the single tenant residents or within dumpsters situated throughout the multi-family units within the subject properties. Nonhazardous waste is collected by Recology of San Mateo County, California for offsite recycling and disposal.

As previously noted, before their acquisition of the subject properties in 2011, Equity Residential elected to perform screening sampling of soil to evaluate whether there may be a potential for elevated pesticide levels remaining from the pre-1940 agricultural use. Composite soil samples from various locations were collected in August 2011. The results from the soil sampling in the Euclid Improvements Area (Zone 1) indicated that pesticides were not present in the soils.

No evidence of onsite waste disposal was noted during the site visit. No onsite pits, ponds, or lagoons were observed.

2.5.3 UNDERGROUND AND ABOVEGROUND TANKS

Based on interviews of facility personnel and a review of historical records, no underground storage tanks (USTs) have ever been present at the subject properties.

WSP did not identify any recognized environmental conditions based on a review of the facility's USTs or aboveground storage tanks (ASTs).

2.5.4 WATER, WASTEWATER, AND STORM WATER

The subject properties obtain potable water from two sources for public water supply including the O'Connor Tract Water District (for small portion of the units) and American Water (for most of the units). Routine maintenance of the water lines is reportedly performed on a regular basis.

The buildings discharge sanitary wastewater to the East Palo Alto Sanitary District, a publicly owned treatment works (POTW). According to facility personnel and historical records, no septic systems or cesspools have ever been present onsite and none were observed.

Floor drains discharging to the sanitary sewer are present in various utility areas within the subject properties. No sumps were observed or reported to be present at the site.

Storm water at the site generally flows from rooftops to a system of drainage pipes located along the perimeter of the buildings or is collected within the municipal storm water systems within the residential units. From the drainage pipes, storm water is conveyed for discharge to urban storm water drains located throughout the subject properties. There are sumps within the ground level parking areas for 501 O'Connor Street and 2001 Manhattan Avenue that collect storm water which in turn is pumped to the urban storm water system. No significant evidence of stains or stressed vegetation was observed outdoors.

WSP did not identify any recognized environmental conditions based on a review of the facility's water, wastewater, or storm water discharges.

2.5.5 AIR EMISSIONS

The subject properties do not maintain any air emission permits and none appear to be required.

The residential units are equipped with natural gas water heaters and natural gas and electric forced air heaters. None of the residential units are equipped with air conditioning.

WSP did not identify any recognized environmental conditions based on a review of the facility's air emission sources.

2.5.6 POLYCHLORINATED BIPHENYLS

The EPA requires facilities to presume that any mineral oil filled equipment manufactured before July 2, 1979, contains PCBs, unless testing or other information demonstrates otherwise. Based on the age of the subject building (constructed between 1922 and 1969), there is a potential that onsite electrical equipment contains PCBs.

Electricity is supplied to the properties by Pacific Gas and Electric. PG & E is responsible for maintaining the transformers and therefore, any transformers are unlikely to be an environmental concern for the subject properties. Facility personnel reported that no other equipment used onsite utilizes hydraulic fluid potentially containing PCBs.

WSP did not identify any recognized environmental conditions with respect to PCBs at the subject property.

2.5.7 ASBESTOS

WSP was requested to determine if any readily observable building materials have the potential to contain asbestos. WSP was not contracted to perform a comprehensive asbestos survey or testing of materials for asbestos content. During the course of the site visit, WSP observed surfacing material, thermal system insulation, floor tiles or other sheet flooring, which are building materials that may contain asbestos. In addition, the subject properties were constructed between 1922 and 1969 when ACM was used in building materials.

The Occupational Safety and Health Administration (OSHA) requires facilities to presume that any surfacing material and thermal system insulation in buildings constructed before December 31, 1980, contain asbestos, unless testing or other information demonstrates otherwise. Additionally, any vinyl flooring installed before December 31, 1980 must be presumed to contain asbestos unless testing or other information demonstrates otherwise. Based on WSP's observations, it appears that the building materials present would be considered presumed ACM.

Based on a review of an ACM tracking spreadsheet provided to WSP, building material samples were collected from approximately 130 of the 142 buildings throughout the Woodland Parks Apartment area in 2011 and 2012. Asbestos was identified in various building materials including acoustical ceiling material, HVAC duct material, floor tile and mastic, vinyl floor material, joint and texturing compound. The tracking spreadsheet indicates ACM was removed from many subject property buildings; however, some ACM remains in place at many subject property buildings. An Asbestos O&M Plan was developed in 2014. WSP recommends continued implementation of the Asbestos O&M Plan with necessary precautions taken prior to any renovation or demolition of ACM areas.

2.5.8 LEAD-BASED PAINT

In 1978, the U.S. Consumer Product Safety Commission lowered the permissible levels of lead contained in paints and prohibited application of LBP on housing constructed or rehabilitated with federal assistance. Paint manufacturers complied by lowering or eliminating lead content from paint products, specifically those sold for residential use. At the time of the site visit, WSP did not observe any areas of damaged painted surfaces. WSP reviewed a tracking spreadsheet for LBP identified in subject property buildings in each zone. Additionally, a tracking spreadsheet indicated that vendors of Woodland Park Apartments were notified of the LBP areas onsite between 2013 and 2015. WSP did not review a LBP O&M Plan. WSP recommends continued implementation of a LBP O&M Plan and that necessary precautions are taken prior to any renovation or demolition of painted surfaces.

3 ADJOINING PROPERTIES

3.1 PRESENT USES

Based on interviews with facility personnel, a review of available city directories, and a visual "drive-by" review, the current uses of properties adjoining the subject property area are summarized below:

DIRECTION	OPERATOR NAME	ADDRESS	PROPERTY USE
North	Bayshore Road and US Highway 101	N/A	Public road and highway
South	City of East Palo Alto and San Francisquito Creek	Residential	Residential
East	Various residential and neighborhood commercial properties	Various along West Bayshore Road	Residential and neighborhood commercial
West	Single-family and multi-family residential	Various	Residential

No recognized environmental conditions that may adversely affect the subject property were identified at adjoining properties. Additionally, none of the adjoining properties was identified by the regulatory database search as having had a reportable release or other environmental incident.

3.2 PAST USES

Aerial photographs from 1939 to 2012 show vacant, undeveloped land, residential areas and agricultural uses on the adjoining properties surrounding the subject property areas. Residential properties were reportedly constructed between 1922 and 1969. Historical topographic maps as early as 1897 and Sanborn fire insurance maps dated 1954 and 1968 confirm the surrounding areas are vacant, undeveloped land, residential homes or used for agricultural purposes. No other past uses of surrounding properties were identified from the historical sources reviewed.

The previous environmental reports (AEI, 2011) did not indicate any environmental concerns at adjoining properties. Based on WSP's review, there is no evidence indicating an existing release or a material threat of a release of any hazardous substances or petroleum products into structures on the subject property area or onto the ground, groundwater or surface water of the subject property areas from historical use of adjoining properties. No other historical sources of information regarding past uses of the adjoining properties were reasonably ascertainable.

Further details on past use of adjoining properties are provided in Section 4.1 – Historical Records.

WSP did not identify any recognized environmental conditions with respect to past uses of adjoining properties.

4 RECORDS REVIEW/USER PROVIDED INFORMATION

4.1 HISTORICAL RECORDS

4.1.1 SANBORN FIRE INSURANCE MAPS

WSP retained EDR to conduct a search for historical maps, including Sanborn fire insurance maps, for the subject properties. For the 15 properties, Sanborn maps for 1954 and 1968 were available.

4.1.2 AERIAL PHOTOGRAPHS

WSP reviewed aerial photographs taken in 1939, 1943, 1948, 1950, 1958, 1968, 1974, 1982, 1991, 2005, 2009, 2010, and 2012 (Appendix E). Significant changes in the use of the subject property and adjoining properties are summarized below:

PHOTOGRAPH	SUBJECT PROPERTY	ADJOINING PROPERTIES
1939, 1943, 1948, 1950 Scale 1" = 500'	The subject properties are agricultural land with scattered farm houses in the area of South Properties and residential development in the area of the properties.	The neighboring properties to the n east and south are also in agricultural use and residential development is present north, west, and southwest of the Properties.
1958 Scale 1" = 500'	The subject properties have been further developed and there are larger apartment type buildings visible.	The adjoining properties are heavily populated with residential development.
1968, 1974, 1982, 1991, 2005, 2009, 2010, and 2012 Scale 1" = 500'	The subject property and improvements appear to be in the same general configuration as observed during WSP's recent site visit.	The adjacent properties and improvements appear to be in the same general configuration as observed during WSP's recent site visit.

The aerial photograph review did not identify any evidence of suspect land contaminating activities, such as landfills or bulk storage tank farms, on or in the immediate vicinity of the subject property.

4.1.3 TOPOGRAPHIC MAPS

WSP reviewed historical topographic maps for the subject properties and the surrounding area prepared in 1897, 1899, 1902, 1943, 1948, 1953, 1961, 1968, 1973, 1994, 1995, 1997, 1999, and 2012 (Appendix E). Significant changes in the use of the subject property and adjoining properties are summarized below:

TOPOGRAPHIC MAP	SUBJECT PROPERTY	ADJOINING PROPERTY
1897, 1899, 1902, 1943, Scale 1:62,500	The subject properties are undeveloped	Adjoining properties to the north, south, east, and west are undeveloped.
1948 Scale 1:62,500	The subject properties are populated with several buildings	Adjoining properties to the north, south, and west are further developed with scattered houses to the east.
1953, 1961, 1968, 1973, 1994, 1995, 1997, 1999, and 2012 Scale 1:24,000	The subject properties are in the midst of heavy residential development; there is little detail concerning the nature of the development	The adjacent properties are in the midst of heavy residential development; there is little detail concerning the nature of the development.

The historical topographic map review did not identify any evidence of suspect land contaminating activities, such as landfills or bulk fuel storage tank farms, in the immediate vicinity of the subject property.

4.1.4 CITY DIRECTORIES

City directories from 1970 to 2013 were reviewed (Appendix E). There are numerous listings of tenant names associated with various addresses within the properties areas. There was no information to suggest any environmental concerns from the City Directory listings for the subject properties.

4.2 REGULATORY DATABASE SEARCH

WSP retained EDR to conduct a database search of the site and properties within AAI- and ASTM-specified search radii to identify releases or threatened releases and to help assess the likelihood of problems from migrating hazardous substances or petroleum products. The search (including the approximate minimum search distances) was conducted in accordance with the standards established by Section 101(35)(B) of CERCLA, 40 CFR 312.26, and ASTM E 1527-13.

According to the EDR report, one unit within the Woodland Park Apartments area, 2031 Euclid Avenue, is listed as a generator of hazardous waste from the disposal of ACM in 2010. Another unit address, 445 O'Keefe Road, was listed under as a former auto detailing operation (HIST AUTO database) for historic automobile related business. This address is currently a multi-unit apartment building. These two

database listings within the area of the properties do not indicate any potential environmental concerns for the subject properties.

Federal and state databases also were searched to determine the potential for the site to be affected by releases from neighboring properties. The sites that have the greatest potential to have caused environmental contamination are those that have had releases or spills of hazardous substances or petroleum products located upgradient or in close proximity to the facility. The direction of localized groundwater flow at the properties is flow presumed to be to the north-northeast. Therefore, the sites that are of the greatest potential concern are those that have had releases or spills of hazardous substances or petroleum products and are south-southwest (upgradient) or in close proximity to the subject site.

Approximately 42 sites within a 1-mile radius of the property area are listed on the databases searched by EDR. Twenty-six of the 42 sites have not reported any releases or spills of hazardous substances or petroleum products. Ten of the 42 sites are listed on the leaking underground storage tank (LUST) database and/or related databases. These facilities have reported releases of petroleum products; however, all nine of these incidents have been closed by regulatory agencies. Of the six remaining sites, four sites are listed on ENVIROSTOR (a database identifying sites that have known contamination or sites for which there may be reasons to investigate further) as in remediation for soil only and the other two sites are school sites listed in the Voluntary Cleanup Program (VCP) for remediation of agricultural chemicals in soil. Thus, there is no evidence that any of the 42 listed sites pose an environmental concern to the subject properties.

One facility within a 1-mile radius of the subject property was identified as an "orphan site" in the EDR database report. These sites are identified as unmappable sites due to imprecise or limited address information (e.g., an incomplete street address or a P.O. box). Therefore, it is difficult to determine the potential for activities at these sites to have affected the subject site. Based on the facilities' database address information, this site is unlikely to pose an environmental concern to the properties.

The remainder of the orphan sites, including a CERCLA site and four landfills, could not be located using the addresses listed in the database. During the site visit, WSP did not observe any of the "orphan sites" in the vicinity of the subject property.

4.3 REGULATORY AGENCY FILE REVIEWS

4.3.1 SUBJECT PROPERTIES

WSP submitted FOIA requests to obtain files from the Menlo Park Fire District, San Mateo County Department of Environmental Health, Menlo Park Municipal Water District, Bay Area Air Quality Management District, San Francisco Bay Regional Water Quality Control Board, and Menlo Park Municipal Water District to verify information identified during the site visit, document review, and in the regulatory database search for the subject property and adjoining properties. No records were identified by the Bay Air Quality Management District and Menlo Park Municipal Water District. A response has not been received from the remaining agencies at the time of this report. Information received will be included in the final report or submitted under separate cover.

4.4 ENVIRONMENTAL CLEANUP LIENS/ACTIVITY AND USE LIMITATIONS

WSP conducted a search for the existence of environmental cleanup liens against the subject property through the San Mateo County Clerk Recorders online database. Results from the search indicated no environmental cleanup liens have been reported for the subject property areas.

4.5 USER-PROVIDED INFORMATION

WSP interviewed Michael Kramer of Woodland Park Communities / Sand Hill Property Company regarding the following:

- Environmental clean-up liens that are filed or recorded against the site –Mr. Kramer was not aware of any environmental clean-up liens.
- Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry –Mr. Kramer was not aware of any activity or land use limitations related to environmental issues.
- Specialized knowledge or experience –Mr. Kramer indicated that the user has specialized knowledge or experience related to the property or nearby properties; however, the user was not aware of any environmental issues associated with the subject property, other than what was identified in prior environmental reports.
- Relationship of the purchase price to the fair market value of the property –Mr. Kramer indicated that the purchase price paid for the property in 2016 reasonably reflected the fair market value of the property at that time.
- Commonly known or reasonably ascertainable information about the property – Mr. Kramer indicated that there was commonly known or reasonably ascertainable information about the property provided in the available documents for the properties (as discussed in this Report).
- The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation –Mr. Kramer indicated that they were not aware of the presence of contamination, other than what is identified in prior environmental reports.

5 DATA GAPS

WSP identified the following data gap during the Phase I environmental assessment:

- WSP was unable to interview any previous property owners or occupants of the subject property; however, sufficient information was available through other sources to determine historical operations that were conducted at the subject property. Therefore, this data gap does not affect WPS's ability to identify recognized environmental conditions at the subject property.
- The interiors of residential units and retail stores were not inspected as part of this assessment. Additionally, the back yards and roof areas of each residential home and residential building were not inspected. However, this data gap did not affect WPS's ability to identify recognized environmental conditions at the subject property.

6 CONCLUSIONS

6.1 FINDINGS AND OPINION

WSP conducted a Phase I environmental site assessment of the 15 properties within Woodland Park Apartments Euclid Improvements area located in East Palo Alto, San Mateo County, California (subject property, facility, or site), at the request of Woodland Park Communities. The Phase I environmental site assessment was conducted in accordance with the U.S. Environmental Protection Agency Standards and Practices for All Appropriate Inquiries as required under Section 101(35)(B) of the Comprehensive Environmental Response, Compensation, and Liability Act and referenced in Title 40 Code of Federal Regulations, Part 312; the ASTM International Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-13); and WSP's proposal to Woodland Park Communities for the work, dated September 3. 2019

6.1.1 KNOWN OR SUSPECT RECOGNIZED ENVIRONMENTAL CONDITIONS

WSP did not identify any known or suspect recognized environmental conditions in connection with the subject properties.

6.1.2 CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS

WSP did not identify any controlled recognized environmental conditions in connection with the subject properties.

6.1.3 HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS

WSP did not identify any historical recognized environmental condition in connection with the subject properties:

6.1.4 DE MINIMIS CONDITIONS

WSP did not identify any de minimis conditions at the subject properties:

6.2 ENVIRONMENTAL COMPLIANCE REVIEW

WSP makes the following observations regarding environmental management at the Woodland Park Apartments area:

- An Asbestos O&M Plan was developed in 2014. WSP recommends continued implementation of the Asbestos O&M Plan with necessary precautions taken prior to any renovation or demolition of ACM areas.
- A Lead Based Paint O&M Plan exists and should continue to be implemented so that necessary precautions are taken prior to any renovation or demolition of painted surfaces.

REFERENCES

City of East Palo Alto. 2016. City Services database.

City of East Palo Alto.2014. Zoning Map.

Environmental Data Resources, Inc. 2019. The EDR Aerial Photo Decade Package. Inquiry Number: 5782182.11_1,_2, _3, _4. September 10.

Environmental Data Resources, Inc. 2019. The EDR City Directory Abstract. Inquiry Number: 57821825. September 1.

Environmental Data Resources, Inc. 2019. The EDR Historical Topographic Map Report. Inquiry Number: 5782182.4. September 9.

Environmental Data Resources, Inc. 2019. The EDR Radius Map with GeoCheck. Inquiry Number: 5782182_2. September 25.

Environmental Data Resources, Inc. 2019. Sanborn® Map Report. Inquiry Number: 5782182.3. September 9.

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Environmental Data Resources, Inc. 2019. EDR Environmental Lien and AUL Search. Inquiry Number: 5782182.7. September 10.

Environmental Data Resources, Inc. 2019. EDR Building Permit Report. Inquiry Number: 5782182.8. September 9.

San Mateo County Assessor-County Clerk-Recorder. 2019. East Palo Alto Real Estate Lookup System and Recorders Division. January 25.

U.S. Geological Survey. 2012. Palo Alto, California, Quadrangle, 7.5 Minute Series (Topographic). Scale 1:24,000.

WSP. 2016. Phase I Environmental Site Assessment, Woodland Park Apartments Area-East Palo Alto, California, February 22.

ACRONYMS

AAI	all appropriate inquiries
ACM	asbestos-containing material
AST	aboveground storage tank
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Act Information System database
EDR	Environmental Data Resources, Inc.
EPA	U.S. Environmental Protection Agency
FOIA	Freedom of Information Act
LBP	lead-based paint
LUST	leaking underground storage tank database
O&M	operations and maintenance
OSHA	Occupational Safety and Health Administration
PACM	presumed asbestos-containing material
PCB	polychlorinated biphenyl
POTW	publicly owned treatment works
REC	Recognized Environmental Conditions
SMP	Soils Management Plan
SPCC	spill prevention, control, and countermeasure
TSCA	Toxic Substances Control Act
USFWS	U. S. Fish and Wildlife Service
UST	underground storage tank
VCP	Voluntary Cleanup Program

FIGURES

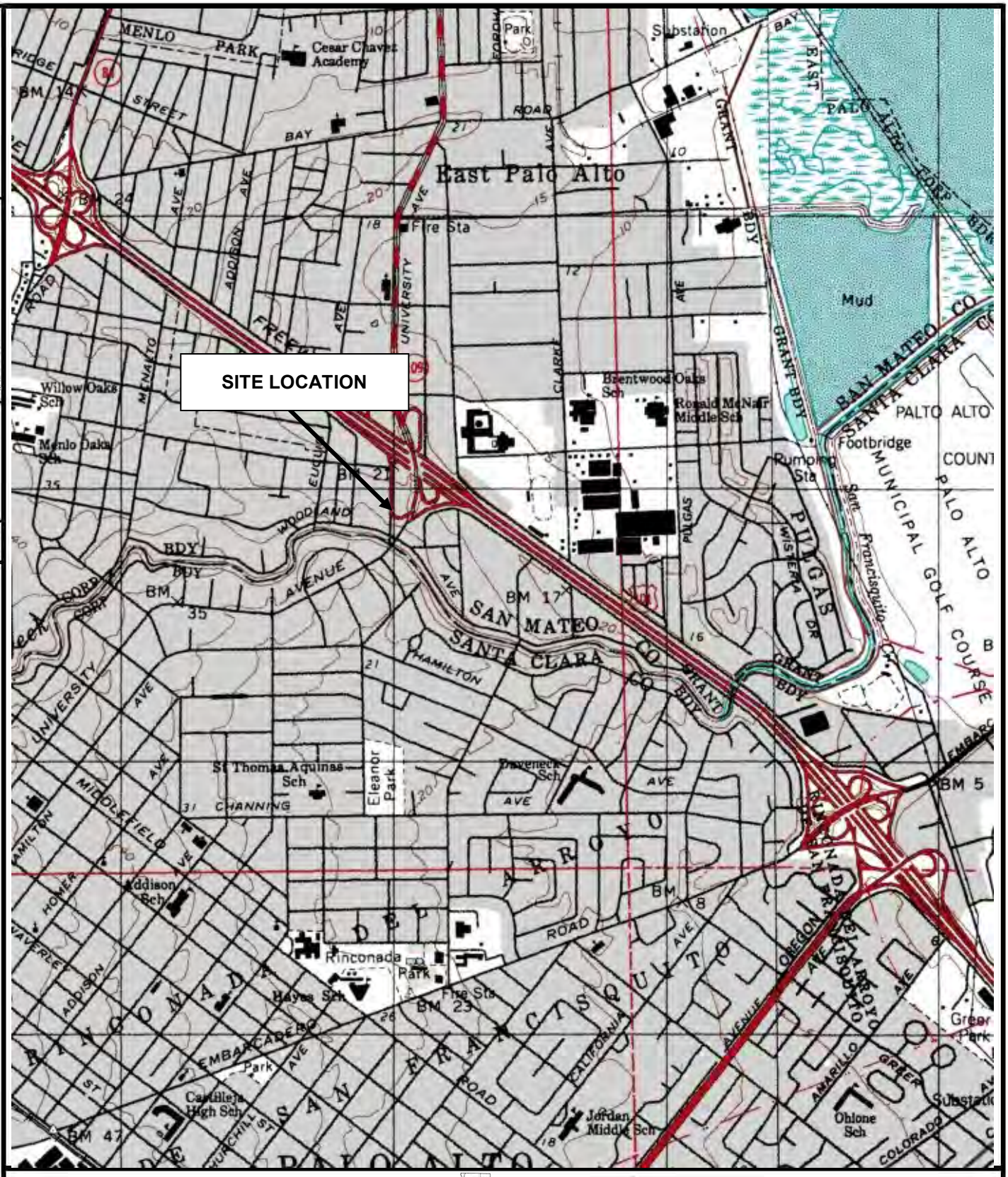
DWG. Name:
Proj #_31402179

Checked:

Approved:

Drawn By:
RD

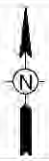
A



REFERENCE:
7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLE
PALO ALTO, CALIFORNIA 1997
SCALE 1:24,000



QUADRANGLE LOCATION



0 1000 2000 4000

SCALE, FEET

WSP USA Inc.
2025 GATEWAY PLACE
SUITE 348
SAN JOSE, CA 95110
TEL: +1 408.453.6100

FIGURE 1

SITE LOCATION

WOODLAND PARK APARTMENTS EUCLID IMPROVEMENTS AREA
EAST PALO ALTO, CALIFORNIA
PREPARED FOR
SAND HILL PROPERTY COMPANY

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WSP USA Inc.
2025 GATEWAY PLACE
SUITE 348
SAN JOSE, CA 95110
TEL: +1 408.453.6100

Figure 2

SITE LAYOUT

WOODLAND PARK APARTMENTS
EUCLID IMPROVEMENTS AREA
EAST PALO ALTO, CALIFORNIA
PREPARED FOR
SAND HILL PROPERTY COMPANY
MENLO PARK, CALIFORNIA

Drawn By: LS 9/24/2019
Checked:
Approved:
DWG Name: 314M00007-002

APPENDIX

A KEY DEFINITIONS FROM ASTM E 1527-13

KEY DEFINITIONS FROM ASTM E 1527-13

STANDARD PRACTICE FOR ENVIRONMENTAL SITE ASSESSMENTS: PHASE I ENVIRONMENTAL SITE ASSESSMENT PROCESS

As stated in ASTM E 1527-13, the goal of the Phase I site assessment process is to identify recognized environmental conditions. A recognized environmental condition means:

> ... the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

In addition, WSP used the following definitions from ASTM E 1527-13 to identify certain findings for this Phase I site assessment:

Controlled Recognized Environmental Condition – a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

Historical Recognized Environmental Condition – a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

De *minimis* Condition – a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

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APPENDIX

B STATEMENT OF QUALIFICATIONS

RICK FREUDENBERGER, PE

Executive Vice President



Years with the firm

34

Years total

47

Professional qualifications

Professional Engineer, Maryland, 1978 (11206)

Formerly Professional Engineer certifications in, New York, Virginia, Georgia, Kentucky, Indiana, Minnesota.

Formerly Maryland Certified Wastewater Treatment Plant Operator

Former Diplomate of the American Academy of Environmental Engineers

Areas of practice

RCRA and CERCLA Remediation oversight

Due Diligence

Expert Witness

Languages

English

CAREER SUMMARY

Rick Freudenberger has over 45 years of experience in performing environmental assessments and remedial investigations, in waste treatment process design, and in technical management programs.

EDUCATION

M.S., Environmental Engineering, University of Maryland, Baltimore, Maryland	1972
B.S., Civil Engineering, University of Maryland, Baltimore, Maryland	1971

ADDITIONAL TRAINING

OSHA Hazardous Waste Operations Training	1987

PROFESSIONAL EXPERIENCE

- Investigations and Corrective Action, City of Industry, California, (1992 - 2018): project manager for a wide variety of investigations and remediation activities at a lead battery recycling operation for over 25 years. Client: Revere Smelting & Refining Corporation. Project Value: Confidential.
- LDW Superfund Site, Seattle, Washington, (2017-18): Technical expert witness in allocation process for Superfund site. Client: Morgan. Lewis & Bockius, LLP. Project Value: Confidential.
- Taylor Yard G2 Site Development, Los Angeles, California, (2017 - 2018): managing investigation and subsequent remedial actions for major park redevelopment project. Client: City of Los Angeles. Project Value: Confidential. (estimated)
- Investigations and Corrective Action, Indianapolis, Indiana, (1992 - 2018): project manager for a wide variety of investigations and remediation activities at a lead battery recycling operation. Client: Revere Smelting & Refining Corporation. Project Value: Confidential.
- Groundwater Remediation, Santa Clarita, California, (2007-2015): managed investigation and remediation of groundwater by chemical injection Client: Archon Project Value: Confidential.
- Environmental Due Diligence, Palo Alto, California, (2010-2018): Managed due diligence and investigation activities for a major developer Client: Sand Hill Property Company. Project Value: Confidential.
- General Manager, San Jose, California, (1990-2015): responsible for managing up to 10 environmental professional in the WSP San Jose office in a variety of environmental projects including Phase I assessments, environmental audits, storm water/construction dewatering projects, and investigation/remediation projects for contaminated soils and groundwater. Client: Various clients Project Value: Confidential.
- Investigations and Corrective Actions, Northern and Southern California, (2004-2014): project manager for two sites for investigation and remediation of soils and groundwater contaminated with PCBs. Client: CBS Corporation. Project Value: Confidential.

APPENDIX

C SITE PHOTOGRAPHS

PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
1	September 12, 2019

View of 501 O'Connor Street (left) and 2003 Manhattan Avenue (right) buildings



Photo No.	**Date**
2	September 12, 2019

Storm drainage sump in between 501 O'Connor Street and 2003 Manhattan Avenue building



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
3	September 12, 2019

2003 Manhattan Avenue building



Photo No.	**Date**
4	September 12, 2019

Laundry room in 2003 Manhattan Avenue building



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
5	September 12, 2019

Parking beneath 2003 Manhattan Avenue building



Photo No.	**Date**
6	September 12, 2019

Storm drain sump adjacent to 2003 Manhattan Avenue parking area



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
7	September 12, 2019

2001 Manhattan Avenue building



Photo No.	**Date**
8	September 12, 2019

Laundry room within
2001 Manhattan Avenue building



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
9	September 12, 2019

Trash dumpsters near
2001 Manhattan Avenue building

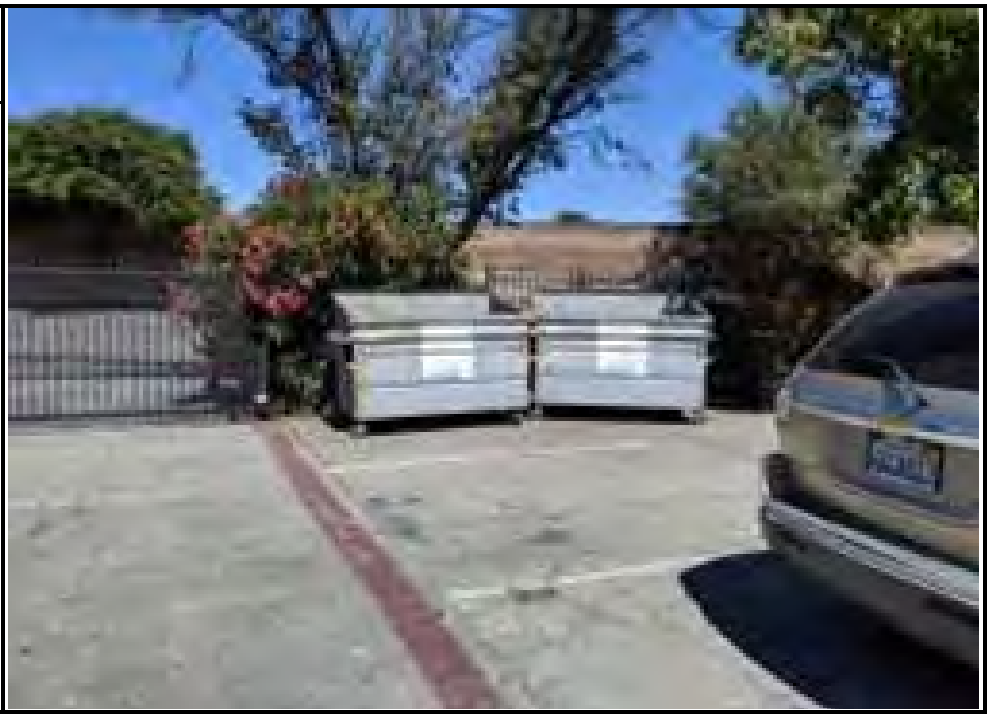


Photo No.	**Date**
10	September 12, 2019

2054 Euclid Avenue building



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
11	September 12, 2019

2044 Euclid Avenue building



Photo No.	**Date**
12	September 12, 2019

2040 Euclid Avenue building



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
13	September 12, 2019

2042 Euclid Avenue building



Photo No.	**Date**
14	September 12, 2019

2036 Euclid Avenue building



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
15	September 12, 2019

2034 Euclid Avenue building

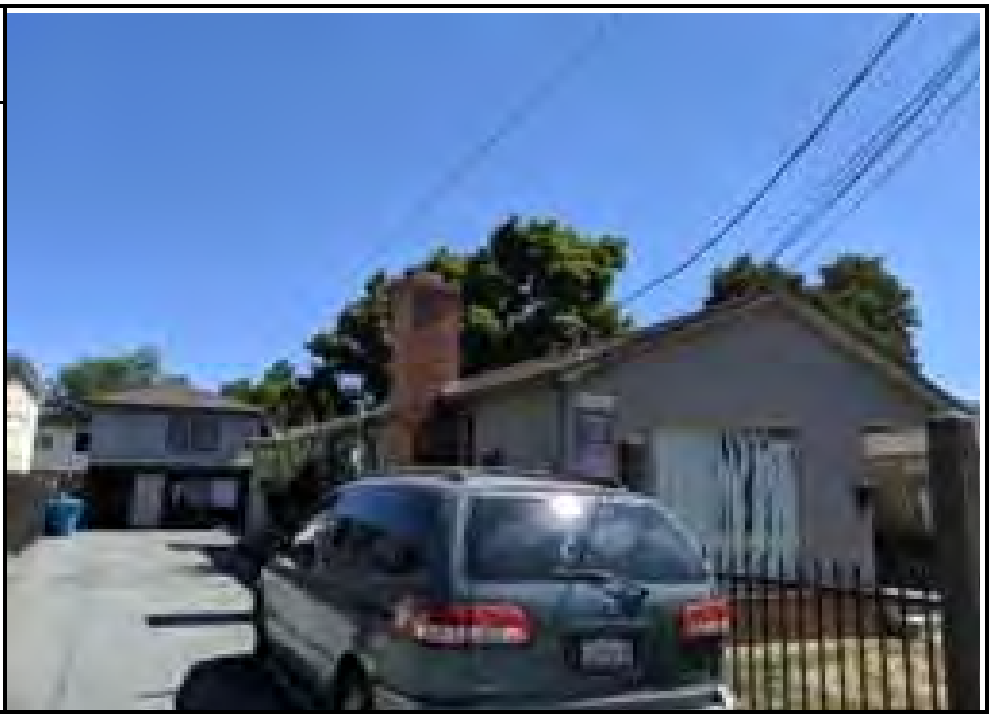


Photo No.	**Date**
16	September 12, 2019

2032 Euclid Avenue building



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
17	September 12, 2019

2012 Euclid Avenue buildings



Photo No.	**Date**
18	September 12, 2019

2021 Euclid Avenue building



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
19	September 12, 2019

2025 Euclid Avenue building



Photo No.	**Date**
20	September 12, 2019

2031 Euclid Avenue building



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
21	September 12, 2019

2041 Euclid Avenue building



Photo No.	**Date**
22	September 12, 2019

2043 Euclid Avenue building



PHOTOGRAPHIC LOG		
Woodland Park Communities	**Woodland Park Apartments Euclid Improvements East Palo Alto, California**	**[Project No.]**

Photo No.	**Date**
23	September 12, 2019

Storage area within 2041 Euclid Avenue building



APPENDIX

D ENVIRONMENTAL DATABASE REPORT

Woodland Park Properties
2032 Euclid Avenue
East Palo Alto, CA 94303

Inquiry Number: 5782182.2s
September 09, 2019

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

2032 EUCLID AVENUE
EAST PALO ALTO, CA 94303

COORDINATES

Latitude (North):	37.4611010 - 37° 27' 39.96''
Longitude (West):	122.1441050 - 122° 8' 38.77''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	575694.4
UTM Y (Meters):	4146165.2
Elevation:	28 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640620 PALO ALTO, CA
Version Date:	2012
East Map:	5641106 MOUNTAIN VIEW, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140608
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
2032 EUCLID AVENUE
EAST PALO ALTO, CA 94303

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	RAVENSWOOD SCHOOL	2021 EUCLID AVENUE	RCRA NonGen / NLR	Higher	219, 0.041, WSW
B2	DOBKO CHEVRON SERVIC	555 OCONNOR	EDR Hist Auto	Higher	233, 0.044, SSE
B3	THE FRIENDLY PLACE R	583 OCONNOR	San Mateo Co. BI	Higher	237, 0.045, SSE
C4	LA TIENDITA MARKET	510 OCONNOR	San Mateo Co. BI	Higher	273, 0.052, SSW
C5	LA TIENDITA MARKET	510 OCONNOR	San Mateo Co. BI	Higher	273, 0.052, SSW
A6	RESIDENCE	495 OCONNOR	San Mateo Co. BI	Higher	287, 0.054, SW
D7	875 O'CONNER STREET	875 O'CONNER STREET	US BROWNFIELDS, FINDS	Higher	312, 0.059, SE
D8	PENBAY CORPORATION	1997 MANHATTAN	EDR Hist Cleaner	Higher	365, 0.069, SSE
E9	FOUR SEASONS HOTEL	2050 UNIVERSITY AVE	CERS HAZ WASTE, HAZNET, CERS	Higher	589, 0.112, ESE
E10	FOUR SEASONS HOTEL S	2050 UNIVERSITY AVE	RCRA-SQG	Higher	589, 0.112, ESE
F11	FOUR SEASONS HOTEL	2050 UNIVERSITY	San Mateo Co. BI	Higher	691, 0.131, SE
F12	UNIVERSITY CIRCLE IN	2000 UNIVERSITY	San Mateo Co. BI	Higher	726, 0.138, SSE
F13	ARCO #749	1998 UNIVERSITY	LUST, San Mateo Co. BI	Higher	739, 0.140, SSE
F14	UNIVERSITY ARCO #749	1998 UNIVERSITY AVE	SWEEPS UST	Higher	739, 0.140, SSE
F15	NASSER DIN ROOHI	1998 UNIVERSITY AVE	SWEEPS UST, CA FID UST	Higher	739, 0.140, SSE
F16	NASSER DIN ROOHI	1998 UNIVERSITY AVE	HIST UST	Higher	739, 0.140, SSE
F17	ARCO	1998 UNIVERSITY	LUST, HIST CORTESE, CERS	Higher	739, 0.140, SSE
G18	RAVENSWOOD CITY SCHO	2110 EUCLID	San Mateo Co. BI	Lower	808, 0.153, North
H19	GOODWILL PROPERTY	1475 E BAYSHORE RD	LUST	Lower	825, 0.156, NNW
H20	GOODWILL PROPERTY	1475 EAST BAYSHORE R	LUST, CERS	Lower	825, 0.156, NNW
I21	CHINA JOY	1972 UNIVERSITY	San Mateo Co. BI	Higher	837, 0.159, SSE
G22	RAVENSWOOD CITY SCHO	2120 EUCLID AVE	RCRA NonGen / NLR	Lower	842, 0.159, North
J23	CHEVRON SERVICE STAT	2101 UNIVERSITY AVE	LUST, SWEEPS UST, HIST CORTESE, CERS	Lower	894, 0.169, NE
J24	CHEVRON SERVICE STAT	2101 UNIVERSITY AVE	UST	Lower	894, 0.169, NE
J25	91061	2101 UNIVERSITY AV	HIST UST	Lower	894, 0.169, NE
J26	CHEVRON 9-1081	2101 UNIVERSITY	LUST, San Mateo Co. BI	Lower	894, 0.169, NE
J27	CHEVRON SERVICE STAT	2101 UNIVERSITY AVE	CERS HAZ WASTE, CERS TANKS, CERS	Lower	894, 0.169, NE
I28	CRESENT CLEANERS	1930 UNIVERSITY AVEN	RCRA-SQG, FINDS, ECHO	Higher	896, 0.170, SSE
I29	SUTTER BAY MEDICAL F	1950 UNIVERSITY AVE	RCRA NonGen / NLR	Higher	900, 0.170, SE
I30	FUEL	1950 UNIVERSITY	San Mateo Co. BI	Higher	900, 0.170, SE
I31	SF SOUP CO	1950 UNIVERSITY	San Mateo Co. BI	Higher	900, 0.170, SE
I32	SUTTER BAY MEDICAL F	1950 UNIVERSITY	San Mateo Co. BI	Higher	900, 0.170, SE
I33	SUTTER BAY MEDICAL F	1950 UNIVERSITY	San Mateo Co. BI	Higher	900, 0.170, SE
I34	UNIVERSITY CIRCLE IN	1950 UNIVERSITY	San Mateo Co. BI	Higher	900, 0.170, SE
I35	CEI MEDICAL GROUP	1900 UNIVERSITY	San Mateo Co. BI	Higher	906, 0.172, SSE
I36	WELLS REIT II-UNIVER	1900 UNIVERSITY	San Mateo Co. BI	Higher	906, 0.172, SSE
I37	UNIVERSITY CIRCLE	1900 UNIVERSITY	San Mateo Co. BI	Higher	906, 0.172, SSE
K38	RAVENSWOOD COMMUNITY	2100 UNIVERSITY	San Mateo Co. BI	Lower	934, 0.177, NE
K39	THE SOBRATO ORGANIZA	2100 UNIVERSITY	San Mateo Co. BI	Lower	934, 0.177, NE

MAPPED SITES SUMMARY

Target Property Address:
2032 EUCLID AVENUE
EAST PALO ALTO, CA 94303

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
40	DREW HEALTH FOUNDATI	2111 UNIVERSITY	San Mateo Co. BI	Lower	939, 0.178, NNE
I41	UNIVERSITY CIRCLE RE	1973 UNIVERSITY	San Mateo Co. BI	Higher	963, 0.182, SSE
L42	RAVENSWOOD CITY SCHO	2160 EUCLID AVE	CERS HAZ WASTE, CERS TANKS, EMI, HAZNET, CERS	Lower	980, 0.186, North
L43	RAVENSWOOD CITY SCHO	2160 EUCLID AVE	SWEEPS UST	Lower	980, 0.186, North
L44	RAVENSWOOD CITY SCHO	2160 EUCLID AVE	UST	Lower	980, 0.186, North
L45	RAVENSWOOD CITY SCHO	2160 EUCLID	San Mateo Co. BI	Lower	980, 0.186, North
M46	UNIVERSITY CIRCLE	1941 UNIVERSITY	San Mateo Co. BI	Higher	1033, 0.196, SSE
N47	A1 AUTOMOTIVE REPAIR	648 DONOHOE	San Mateo Co. BI	Lower	1076, 0.204, ENE
48	ARDMORE APARTMENTS-	315 E OKEEFE STREET	RCRA NonGen / NLR	Higher	1115, 0.211, WNW
N49	COUNTRY TIME MARKET	635 DONOHOE	San Mateo Co. BI	Lower	1122, 0.213, ENE
M50	UNOCAL	1901 UNIVERSITY	HIST CORTESE	Lower	1128, 0.214, SSE
M51	UNOCAL #2862	1901 UNIVERSITY	LUST, SWEEPS UST, HIST UST, San Mateo Co. BI, HIST...	Lower	1128, 0.214, SSE
52	B & M	2118 UNIVERSITY	San Mateo Co. BI	Lower	1145, 0.217, NE
53	EL GALOPE TAQUERIA	641 DONOHOE	San Mateo Co. BI	Lower	1191, 0.226, ENE
O54	JONES MORTUARY	660 DONOHOE	LUST, CERS	Lower	1256, 0.238, ENE
O55	JONES MORTUARY INC	660 DONOHOE	San Mateo Co. BI	Lower	1256, 0.238, ENE
P56	MI PUEBLITO	2150 UNIVERSITY	San Mateo Co. BI	Lower	1289, 0.244, NE
P57	EPA FISH CHICKEN	2150 UNIVERSITY	San Mateo Co. BI	Lower	1289, 0.244, NE
P58	MARIAS TAQUERIA	2150 UNIVERSITY	San Mateo Co. BI	Lower	1289, 0.244, NE
59	LAUREL UPPER SCHOOL	275 ELLIOT DRIVE	ENVIROSTOR, SCH, HAZNET, NPDES, CIWQS	Higher	1561, 0.296, WSW
60	SHELL STATION	2194 UNIVERSITY	LUST, CERS	Lower	1742, 0.330, NNE
Q61	PRIVATE RESIDENCE	PRIVATE RESIDENCE	LUST	Higher	2083, 0.395, SSE
Q62	GIRAND RESIDENCE	590 CRESCENT	LUST, HIST LUST, HIST CORTESE	Higher	2099, 0.398, SSE
63	EAST PALO ALTO - GRE	794 GREEN ST.	US BROWNFIELDS, FINDS	Lower	2149, 0.407, ENE
64	755 SCHEMBRI LANE	755 SCHEMBRI LANE	ENVIROSTOR, VCP	Lower	2762, 0.523, NE
65	MYRTLE STREET HIGH S	980 AND 992 MYRTLE S	ENVIROSTOR, VCP, DEED	Lower	3404, 0.645, ENE
66	MYRTLE STREET HIGH S	1010, 1020, 1040, 10	ENVIROSTOR, SCH	Lower	3587, 0.679, ENE
67	KNOWN	600 WILLOW ROAD	Notify 65	Higher	4292, 0.813, West
68	1010 RUNNYMEDE	1010 RUNNYMEDE	ENVIROSTOR, CPS-SLIC, CERS	Lower	4403, 0.834, NE
69	ELECTRITE PLATING CO	1805 BAY ROAD	ENVIROSTOR, LUST, FINDS, ECHO, HIST CORTESE, CERS	Lower	4883, 0.925, NE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

EXECUTIVE SUMMARY

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land
CPS-SLIC ---------- Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Program Properties
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---------- Waste Management Unit Database
SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
ODI ---------- Open Dump Inventory
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
HIST Cal-Sites ---------- Historical Calsites Database
SCH ---------- School Property Evaluation Program
CDL ---------- Clandestine Drug Labs
Toxic Pits ---------- Toxic Pits Cleanup Act Sites
US CDL ---------- National Clandestine Laboratory Register
PFAS ---------- PFAS Contamination Site Location Listing

EXECUTIVE SUMMARY

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan

EXECUTIVE SUMMARY

Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data
ICE	ICE
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CIWQS	California Integrated Water Quality System
CERS	CERS
NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/25/2019 has revealed that there are 2 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FOUR SEASONS HOTEL S EPA ID:: CAR000280834	2050 UNIVERSITY AVE	ESE 0 - 1/8 (0.112 mi.)	E10	30
CRESENT CLEANERS EPA ID:: CAD981622814	***1930 UNIVERSITY AVEN***	***SSE 1/8 - 1/4 (0.170 mi.)***	***I28***	***71***

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 04/29/2019 has revealed that there are 6 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LAUREL UPPER SCHOOL Facility Id: 60001979 Status: Active	***275 ELLIOT DRIVE***	***WSW 1/4 - 1/2 (0.296 mi.)***	***59***	***111***

Lower Elevation	Address	Direction / Distance	Map ID	Page
755 SCHEMBRI LANE Facility Id: 60002708 Status: No Further Action	***755 SCHEMBRI LANE***	***NE 1/2 - 1 (0.523 mi.)***	***64***	***134***
MYRTLE STREET HIGH S Facility Id: 60001925 Status: Certified O&M - Land Use Restrictions Only	***980 AND 992 MYRTLE S***	***ENE 1/2 - 1 (0.645 mi.)***	***65***	***138***
MYRTLE STREET HIGH S	***1010, 1020, 1040, 10***	***ENE 1/2 - 1 (0.679 mi.)***	***66***	***145***

Facility Id: 60001223
Status: Certified

1010 RUNNYMEDE ***1010 RUNNYMEDE*** ***NE 1/2 - 1 (0.834 mi.)*** ***68*** ***151***
Facility Id: 60001548
Status: Inactive - Needs Evaluation

ELECTRITE PLATING CO ***1805 BAY ROAD*** ***NE 1/2 - 1 (0.925 mi.)*** ***69*** ***154***
Facility Id: 41340028
Status: Refer: RWQCB

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 11 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ARCO #749	***1998 UNIVERSITY***	***SSE 1/8 - 1/4 (0.140 mi.)***	***F13***	***33***
Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Status: Case Closed date9: 9/25/2000				
ARCO	***1998 UNIVERSITY***	***SSE 1/8 - 1/4 (0.140 mi.)***	***F17***	***41***
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Database: LUST, Date of Government Version: 06/10/2019 Status: Completed - Case Closed Facility Id: 890003 Facility Status: 9- Case Closed Global Id: T0608100031 Global ID: T0608100031				
PRIVATE RESIDENCE	PRIVATE RESIDENCE	SSE 1/4 - 1/2 (0.395 mi.)	Q61	126
Database: LUST, Date of Government Version: 06/10/2019 Status: Completed - Case Closed Global Id: T0608545440				
GIRAND RESIDENCE	***590 CRESCENT***	***SSE 1/4 - 1/2 (0.398 mi.)***	***Q62***	***128***
Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST SANTA CLARA, Date of Government Version: 03/03/2014 Facility Status: Case Closed Date Closed: 01/21/2000 SCVWD ID: 05S3W36F02F date9: 1/21/2000				

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOODWILL PROPERTY	1475 E BAYSHORE RD	NNW 1/8 - 1/4 (0.156 mi.)	H19	44
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019 Facility Id: 890023 Facility Status: 9- Case Closed Global ID: T0608156921				
GOODWILL PROPERTY	***1475 EAST BAYSHORE R***	***NNW 1/8 - 1/4 (0.156 mi.)***	***H20***	***44***
Database: LUST, Date of Government Version: 06/10/2019				

Status: Completed - Case Closed
Global Id: T0608156921

CHEVRON SERVICE STAT ***2101 UNIVERSITY AVE*** ***NE 1/8 - 1/4 (0.169 mi.)*** ***J23*** ***48***
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Database: LUST, Date of Government Version: 06/10/2019
Status: Completed - Case Closed
Facility Id: 890013
Facility Status: 9- Case Closed
Global Id: T0608100926
Global ID: T0608100926

CHEVRON 9-1081 ***2101 UNIVERSITY*** ***NE 1/8 - 1/4 (0.169 mi.)*** ***J26*** ***60***
Database: LUST REG 2, Date of Government Version: 09/30/2004
Facility Status: Pollution Characterization

UNOCAL #2862 ***1901 UNIVERSITY*** ***SSE 1/8 - 1/4 (0.214 mi.)*** ***M51*** ***100***
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 06/10/2019
Status: Completed - Case Closed
Facility Status: Case Closed
Facility Id: 890005
Facility Status: 9- Case Closed
Global Id: T0608100576
Global ID: T0608100576
date9: 8/31/1993

JONES MORTUARY ***660 DONOHOE*** ***ENE 1/8 - 1/4 (0.238 mi.)*** ***O54*** ***107***
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Database: LUST REG 2, Date of Government Version: 09/30/2004
Database: LUST, Date of Government Version: 06/10/2019
Status: Completed - Case Closed
Facility Status: Case Closed
Facility Id: 890020
Facility Status: 9- Case Closed
Global Id: T0608152821
Global ID: T0608152821
date9: 9/13/2003

SHELL STATION ***2194 UNIVERSITY*** ***NNE 1/4 - 1/2 (0.330 mi.)*** ***60*** ***124***
Database: SAN MATEO CO. LUST, Date of Government Version: 03/29/2019
Database: LUST, Date of Government Version: 06/10/2019
Status: Completed - Case Closed
Facility Id: 890022
Facility Status: 9- Case Closed
Global Id: T0608182543
Global ID: T0608182543

HIST LUST: A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

A review of the HIST LUST list, as provided by EDR, and dated 03/29/2005 has revealed that there is 1 HIST LUST site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GIRAND RESIDENCE	***590 CRESCENT***	***SSE 1/4 - 1/2 (0.398 mi.)***	***Q62***	***128***

SCVWD ID: 05S3W36F02

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON SERVICE STAT Database: UST, Date of Government Version: 06/10/2019 Facility Id: 41-000-018329	2101 UNIVERSITY AVE	NE 1/8 - 1/4 (0.169 mi.)	J24	58
RAVENSWOOD CITY SCHO Database: UST, Date of Government Version: 06/10/2019	2160 EUCLID AVE	N 1/8 - 1/4 (0.186 mi.)	L44	96

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 06/03/2019 has revealed that there are 2 US BROWNFIELDS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
875 O'CONNER STREET ACRES property ID: 15635	***875 O'CONNER STREET***	***SE 0 - 1/8 (0.059 mi.)***	***D7***	***10***

Lower Elevation	Address	Direction / Distance	Map ID	Page
EAST PALO ALTO - GRE ACRES property ID: 225141	***794 GREEN ST.***	***ENE 1/4 - 1/2 (0.407 mi.)***	***63***	***129***

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 08/14/2019 has revealed that there

are 3 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FOUR SEASONS HOTEL	***2050 UNIVERSITY AVE***	***ESE 0 - 1/8 (0.112 mi.)***	***E9***	***16***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON SERVICE STAT	***2101 UNIVERSITY AVE***	***NE 1/8 - 1/4 (0.169 mi.)***	***J27***	***61***
RAVENSWOOD CITY SCHO	***2160 EUCLID AVE***	***N 1/8 - 1/4 (0.186 mi.)***	***L42***	***79***

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 5 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
UNIVERSITY ARCO #749 Status: A Tank Status: A Comp Number: 890009	1998 UNIVERSITY AVE	SSE 1/8 - 1/4 (0.140 mi.)	F14	33
NASSER DIN ROOHI Status: A Tank Status: A Comp Number: 26961	***1998 UNIVERSITY AVE***	***SSE 1/8 - 1/4 (0.140 mi.)***	***F15***	***37***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON SERVICE STAT Status: A Tank Status: A Comp Number: 890013	***2101 UNIVERSITY AVE***	***NE 1/8 - 1/4 (0.169 mi.)***	***J23***	***48***
RAVENSWOOD CITY SCHO Comp Number: 890021	2160 EUCLID AVE	N 1/8 - 1/4 (0.186 mi.)	L43	95
UNOCAL #2862 Status: A Tank Status: A Comp Number: 890010	***1901 UNIVERSITY***	***SSE 1/8 - 1/4 (0.214 mi.)***	***M51***	***100***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 3 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NASSER DIN ROOHI	1998 UNIVERSITY AVE	SSE 1/8 - 1/4 (0.140 mi.)	F16	39

Facility Id: 00000026961

Lower Elevation	Address	Direction / Distance	Map ID	Page
91061 Facility Id: 00000061983	2101 UNIVERSITY AV	NE 1/8 - 1/4 (0.169 mi.)	J25	58
UNOCAL #2862 Facility Id: 00000031714	***1901 UNIVERSITY***	***SSE 1/8 - 1/4 (0.214 mi.)***	***M51***	***100***

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NASSER DIN ROOHI Facility Id: 43008436 Status: A	***1998 UNIVERSITY AVE***	***SSE 1/8 - 1/4 (0.140 mi.)***	***F15***	***37***

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 08/14/2019 has revealed that there are 2 CERS TANKS sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON SERVICE STAT	***2101 UNIVERSITY AVE***	***NE 1/8 - 1/4 (0.169 mi.)***	***J27***	***61***
RAVENSWOOD CITY SCHO	***2160 EUCLID AVE***	***N 1/8 - 1/4 (0.186 mi.)***	***L42***	***79***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/25/2019 has revealed that there are 4 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RAVENSWOOD SCHOOL EPA ID:: CAC002964777	2021 EUCLID AVENUE	WSW 0 - 1/8 (0.041 mi.)	A1	8
SUTTER BAY MEDICAL F EPA ID:: CAL000430917	1950 UNIVERSITY AVE	SE 1/8 - 1/4 (0.170 mi.)	I29	73
ARDMORE APARTMENTS-	315 E OKEEFE STREET	WNW 1/8 - 1/4 (0.211 mi.)	48	98

EPA ID:: CAC002963848

Lower Elevation	Address	Direction / Distance	Map ID	Page
RAVENSWOOD CITY SCHO EPA ID:: CAL912605650	2120 EUCLID AVE	N 1/8 - 1/4 (0.159 mi.)	G22	47

Hazardous Materials Business Plan, Hazardous Waste Generator, Underground Storage tanks

A review of the San Mateo Co. BI list, as provided by EDR, and dated 08/06/2019 has revealed that there are 33 San Mateo Co. BI sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
THE FRIENDLY PLACE R Facility Id: FA0022540	583 OCONNOR	SSE 0 - 1/8 (0.045 mi.)	B3	9
LA TIENDITA MARKET Facility Id: FA0049775	510 OCONNOR	SSW 0 - 1/8 (0.052 mi.)	C4	9
LA TIENDITA MARKET Facility Id: FA0028724	510 OCONNOR	SSW 0 - 1/8 (0.052 mi.)	C5	10
RESIDENCE Facility Id: FA0023894	495 OCONNOR	SW 0 - 1/8 (0.054 mi.)	A6	10
FOUR SEASONS HOTEL Facility Id: FA0027499 Facility Id: FA0035723	2050 UNIVERSITY	SE 1/8 - 1/4 (0.131 mi.)	F11	31
UNIVERSITY CIRCLE IN Facility Id: FA0026993	2000 UNIVERSITY	SSE 1/8 - 1/4 (0.138 mi.)	F12	32
ARCO #749 Facility Id: FA0018342 Facility Id: FA0026843	***1998 UNIVERSITY***	***SSE 1/8 - 1/4 (0.140 mi.)***	***F13***	***33***
CHINA JOY Facility Id: FA0002609	1972 UNIVERSITY	SSE 1/8 - 1/4 (0.159 mi.)	I21	47
FUEL Facility Id: FA0028213	1950 UNIVERSITY	SE 1/8 - 1/4 (0.170 mi.)	I30	74
SF SOUP CO Facility Id: FA0028239	1950 UNIVERSITY	SE 1/8 - 1/4 (0.170 mi.)	I31	75
SUTTER BAY MEDICAL F Facility Id: FA0064649	1950 UNIVERSITY	SE 1/8 - 1/4 (0.170 mi.)	I32	75
SUTTER BAY MEDICAL F Facility Id: FA0063512	1950 UNIVERSITY	SE 1/8 - 1/4 (0.170 mi.)	I33	75
UNIVERSITY CIRCLE IN Facility Id: FA0026992	1950 UNIVERSITY	SE 1/8 - 1/4 (0.170 mi.)	I34	76
CEI MEDICAL GROUP Facility Id: FA0045769	1900 UNIVERSITY	SSE 1/8 - 1/4 (0.172 mi.)	I35	76
WELLS REIT II-UNIVER Facility Id: FA0026991 Facility Id: FA0046944	1900 UNIVERSITY	SSE 1/8 - 1/4 (0.172 mi.)	I36	77
UNIVERSITY CIRCLE	1900 UNIVERSITY	SSE 1/8 - 1/4 (0.172 mi.)	I37	78

Facility Id: FA0063050				
UNIVERSITY CIRCLE RE Facility Id: FA0026132	1973 UNIVERSITY	SSE 1/8 - 1/4 (0.182 mi.)	I41	79
UNIVERSITY CIRCLE Facility Id: FA0026323	1941 UNIVERSITY	SSE 1/8 - 1/4 (0.196 mi.)	M46	97

Lower Elevation	Address	Direction / Distance	Map ID	Page
RAVENSWOOD CITY SCHO Facility Id: FA0065902	2110 EUCLID	N 1/8 - 1/4 (0.153 mi.)	G18	44
CHEVRON 9-1081 Facility Id: FA0018329	***2101 UNIVERSITY***	***NE 1/8 - 1/4 (0.169 mi.)***	***J26***	***60***
RAVENSWOOD COMMUNITY Facility Id: FA0014587	2100 UNIVERSITY	NE 1/8 - 1/4 (0.177 mi.)	K38	78
THE SOBRATO ORGANIZA Facility Id: FA0066310	2100 UNIVERSITY	NE 1/8 - 1/4 (0.177 mi.)	K39	78
DREW HEALTH FOUNDATI Facility Id: FA0022306	2111 UNIVERSITY	NNE 1/8 - 1/4 (0.178 mi.)	40	79
RAVENSWOOD CITY SCHO Facility Id: FA0009839	2160 EUCLID	N 1/8 - 1/4 (0.186 mi.)	L45	96
A1 AUTOMOTIVE REPAIR Facility Id: FA0014217	648 DONOHOE	ENE 1/8 - 1/4 (0.204 mi.)	N47	97
COUNTRY TIME MARKET Facility Id: FA0004195	635 DONOHOE	ENE 1/8 - 1/4 (0.213 mi.)	N49	99
UNOCAL #2862 Facility Id: FA0018326	***1901 UNIVERSITY***	***SSE 1/8 - 1/4 (0.214 mi.)***	***M51***	***100***
B & M Facility Id: FA0027404	2118 UNIVERSITY	NE 1/8 - 1/4 (0.217 mi.)	52	106
EL GALOPE TAQUERIA Facility Id: FA0004459	641 DONOHOE	ENE 1/8 - 1/4 (0.226 mi.)	53	107
JONES MORTUARY INC Facility Id: FA0044936	660 DONOHOE	ENE 1/8 - 1/4 (0.238 mi.)	O55	109
MI PUEBLITO Facility Id: FA0054822	2150 UNIVERSITY	NE 1/8 - 1/4 (0.244 mi.)	P56	110
EPA FISH CHICKEN Facility Id: FA0046997	2150 UNIVERSITY	NE 1/8 - 1/4 (0.244 mi.)	P57	110
MARIAS TAQUERIA Facility Id: FA0000736	2150 UNIVERSITY	NE 1/8 - 1/4 (0.244 mi.)	P58	110

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 5 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ARCO	***1998 UNIVERSITY***	***SSE 1/8 - 1/4 (0.140 mi.)***	***F17***	***41***

Reg Id: 41-0032				
GIRAND RESIDENCE Reg Id: 43-2349	***590 CRESCENT***	***SSE 1/4 - 1/2 (0.398 mi.)***	***Q62***	***128***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON SERVICE STAT Reg Id: 41-1012	***2101 UNIVERSITY AVE***	***NE 1/8 - 1/4 (0.169 mi.)***	***J23***	***48***
UNOCAL Reg Id: 43-1578	1901 UNIVERSITY	SSE 1/8 - 1/4 (0.214 mi.)	M50	100
UNOCAL #2862 Reg Id: 41-0604	***1901 UNIVERSITY***	***SSE 1/8 - 1/4 (0.214 mi.)***	***M51***	***100***

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 06/17/2019 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KNOWN	600 WILLOW ROAD	W 1/2 - 1 (0.813 mi.)	67	151

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DOBKO CHEVRON SERVIC	555 OCONNOR	SSE 0 - 1/8 (0.044 mi.)	B2	9

EXECUTIVE SUMMARY

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

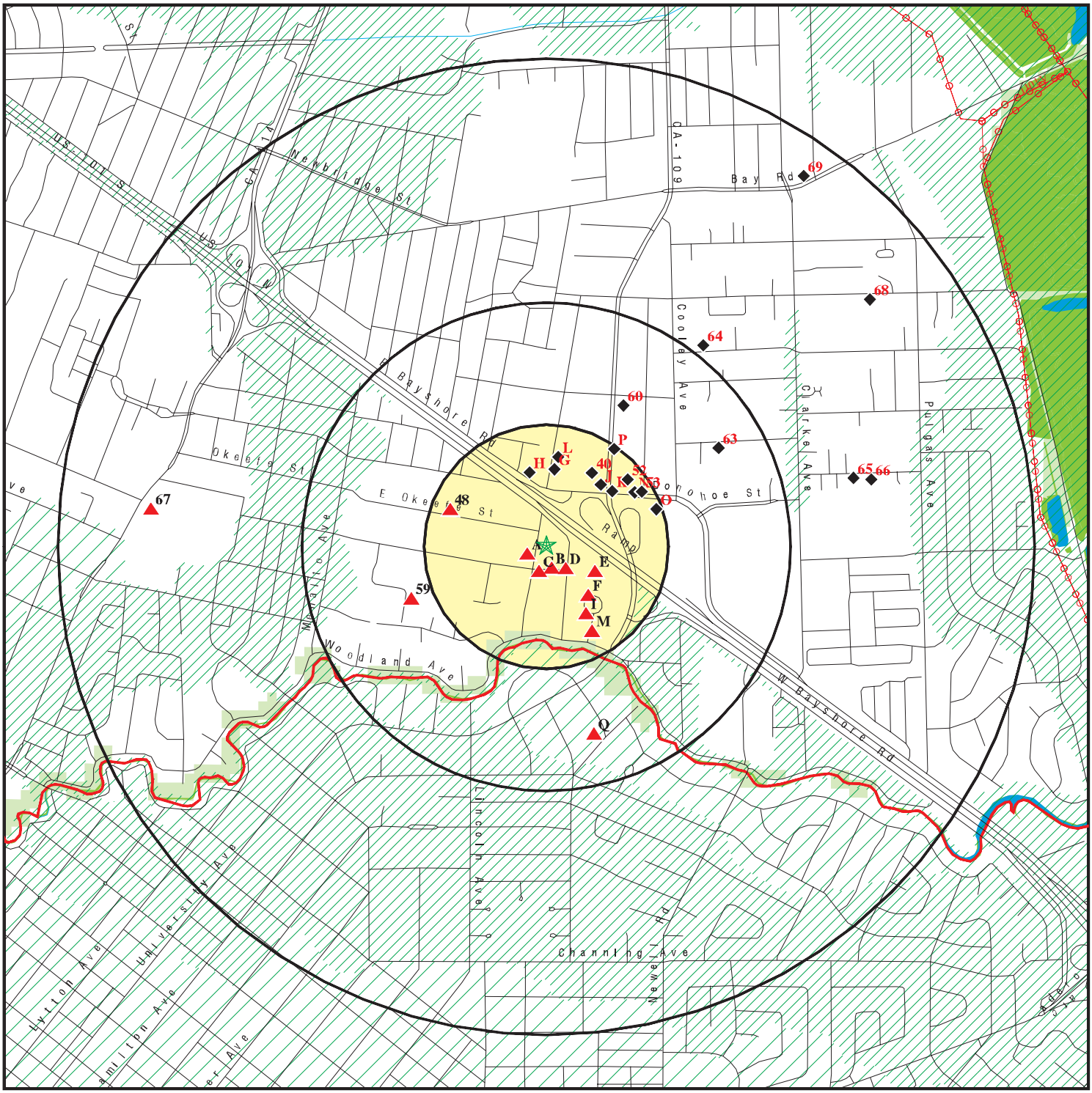
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PENBAY CORPORATION	1997 MANHATTAN	SSE 0 - 1/8 (0.069 mi.)	D8	16

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
PENINSULA SPORTSMENS CLUB	CPS-SLIC

OVERVIEW MAP - 5782182.2S



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Woodland Park Properties	CLIENT: WSP USA Inc.
ADDRESS: 2032 Euclid Avenue East Palo Alto CA 94303	CONTACT: Richard Freudenberger
LAT/LONG: 37.461101 / 122.144105	INQUIRY #: 5782182.2s DATE: September 09, 2019 6:59 pm

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DETAIL MAP - 5782182.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Woodland Park Properties	CLIENT:	WSP USA Inc.
ADDRESS:	2032 Euclid Avenue East Palo Alto CA 94303	CONTACT:	Richard Freudenberger
LAT/LONG:	37.461101 / 122.144105	INQUIRY #:	5782182.2s
		DATE:	September 09, 2019 7:04 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		1	1	NR	NR	NR	2
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	1	5	NR	6
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	8	3	NR	NR	11

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
HIST LUST	0.500		0	0	1	NR	NR	1
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	2	NR	NR	NR	2
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		1	0	1	NR	NR	2
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		1	2	NR	NR	NR	3
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	5	NR	NR	NR	5
HIST UST	0.250		0	3	NR	NR	NR	3
CA FID UST	0.250		0	1	NR	NR	NR	1
CERS TANKS	0.250		0	2	NR	NR	NR	2
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	3	NR	NR	NR	4
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
San Mateo Co. BI	0.250		4	29	NR	NR	NR	33
Cortese	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	4	1	NR	NR	5
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	1	NR	1
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP		NR	NR	NR	NR	NR	0
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		1	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	10	60	7	6	0	83

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
WSW
< 1/8
0.041 mi.
219 ft.

RAVENSWOOD SCHOOL
2021 EUCLID AVENUE
EAST PALO ALTO, CA 94303

Site 1 of 2 in cluster A

RCRA NonGen / NLR **1024745011**
CAC002964777

Relative:
Higher

Actual:
28 ft.

RCRA NonGen / NLR:

Date form received by agency:	06/04/2018
Facility name:	RAVENSWOOD SCHOOL
Facility address:	2021 EUCLID AVENUE EAST PALO ALTO, CA 94303
EPA ID:	CAC002964777
Contact:	STEVE EICHMAN, CBO
Contact address:	2021 EUCLID AVENUE EAST PALO ALTO, CA 94303
Contact country:	Not reported
Contact telephone:	650-329-2800
Contact email:	ANNIELIZ.BRIDGES@US.BELFOR.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	STEVE EICHMAN, CBO
Owner/operator address:	2021 EUCLID AVENUE EAST PALO ALTO, CA 94303
Owner/operator country:	Not reported
Owner/operator telephone:	650-329-2800
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	STEVE EICHMAN, CBO
Owner/operator address:	2021 EUCLID AVENUE EAST PALO ALTO, CA 94303
Owner/operator country:	Not reported
Owner/operator telephone:	650-329-2800
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

RAVENSWOOD SCHOOL (Continued) **1024745011**

Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

B2 **DOBKO CHEVRON SERVICE** **EDR Hist Auto** **1021511788**
SSE **555 OCONNOR** **N/A**
< 1/8 **PALO ALTO, CA 94303**
0.044 mi.
233 ft. **Site 1 of 2 in cluster B**

Relative: EDR Hist Auto
Higher

Actual:
28 ft.

Year:	Name:	Type:
1969	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1970	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1971	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1972	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1973	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1974	DOBKO CHEVRON SERVICE	Gasoline Service Stations
1975	DOBKO CHEVRON SERVICE	Gasoline Service Stations

B3 **THE FRIENDLY PLACE RESTAURANT** **San Mateo Co. BI** **S123180611**
SSE **583 OCONNOR** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
0.045 mi.
237 ft. **Site 2 of 2 in cluster B**

Relative: San Mateo Co. BI:
Higher

Actual:
28 ft.

Name:	THE FRIENDLY PLACE RESTAURANT
Address:	583 OCONNOR
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0022540
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0049958
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

C4 **LA TIENDITA MARKET** **San Mateo Co. BI** **S123182953**
SSW **510 OCONNOR** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
0.052 mi.
273 ft. **Site 1 of 2 in cluster C**

Relative: San Mateo Co. BI:
Higher

Actual:
29 ft.

Name:	LA TIENDITA MARKET
Address:	510 OCONNOR
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO

LA TIENDITA MARKET (Continued) **S123182953**

Facility ID: FA0049775
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0068167
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

C5 **LA TIENDITA MARKET** **San Mateo Co. BI** **S123181867**
SSW **510 OCONNOR** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
0.052 mi.
273 ft. **Site 2 of 2 in cluster C**

Relative: **Higher**
Actual: **29 ft.**

San Mateo Co. BI:
Name: LA TIENDITA MARKET
Address: 510 OCONNOR
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0028724
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0049949
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

A6 **RESIDENCE** **San Mateo Co. BI** **S106981806**
SW **495 OCONNOR** **N/A**
< 1/8 **MENLO PARK, CA 94025**
0.054 mi.
287 ft. **Site 2 of 2 in cluster A**

Relative: **Higher**
Actual: **29 ft.**

San Mateo Co. BI:
Name: RESIDENCE
Address: 495 OCONNOR
City,State,Zip: MENLO PARK, CA 94025
Region: SAN MATEO
Facility ID: FA0023894
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0028006
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable
Program Category: UNDERGROUND TANK PROGRAM

D7 **875 O'CONNER STREET** **US BROWNFIELDS** **1016345736**
SE **875 O'CONNER STREET** **FINDS** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303**
0.059 mi.
312 ft. **Site 1 of 2 in cluster D**

Relative: **Higher**
Actual: **28 ft.**

US BROWNFIELDS:
Name: 875 O'CONNER STREET
Address: 875 O'CONNER STREET
City,State,Zip: EAST PALO ALTO, CA 94303
Recipient Name: East Palo Alto, City of
Grant Type: Showcase Community

875 O'CONNER STREET (Continued) **1016345736**

Property Number:	063-511-480
Parcel size:	.91
Latitude:	37.460712
Longitude:	-122.134383
HCM Label:	Interpolation-Map
Map Scale:	1:24000
Point of Reference:	Entrance Point of a Facility or Station
Highlights:	Not reported
Datum:	World Geodetic System of 1984
Acres Property ID:	15635
IC Data Access:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Acres Cleaned Up:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Assessment Funding:	6262
Assessment Funding Source:	US EPA - Brownfields Assessment Cooperative Agreement
Redevelopment Funding:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Redevelopment Start Date:	12/31/2003 00:00:00
Assessment Funding Entity:	Not reported
Cleanup Funding Entity:	Not reported
Grant Type:	N/A
Accomplishment Type:	Phase II Environmental Assessment
Accomplishment Count:	1
Cooperative Agreement Number:	97931801
Start Date:	11/17/2003 00:00:00
Ownership Entity:	Not reported
Completion Date:	11/17/2003 00:00:00
Current Owner:	John Hunter
Did Owner Change:	Y
Cleanup Required:	N
Video Available:	N
Photo Available:	Y
Institutional Controls Required:	N
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	N
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported

875 O'CONNER STREET (Continued) **1016345736**

Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Not reported
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported

875 O'CONNER STREET (Continued) **1016345736**

SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	Mostly vacant with single family home, nursery
Below Poverty Number:	1420
Below Poverty Percent:	16.1%
Meidan Income:	11862
Meidan Income Number:	4224
Meidan Income Percent:	47.8%
Vacant Housing Number:	313
Vacant Housing Percent:	10.5%
Unemployed Number:	495
Unemployed Percent:	5.6%

Name:	875 O'CONNER STREET
Address:	875 O'CONNER STREET
City,State,Zip:	EAST PALO ALTO, CA 94303
Recipient Name:	East Palo Alto, City of
Grant Type:	Showcase Community
Property Number:	063-511-480
Parcel size:	.91
Latitude:	37.460712
Longitude:	-122.134383
HCM Label:	Interpolation-Map
Map Scale:	1:24000
Point of Reference:	Entrance Point of a Facility or Station
Highlights:	Not reported
Datum:	World Geodetic System of 1984
Acres Property ID:	15635
IC Data Access:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Acres Cleaned Up:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Assessment Funding:	1
Assessment Funding Source:	Other Federal Funding
Redevelopment Funding:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Redevelopment Start Date:	12/31/2003 00:00:00
Assessment Funding Entity:	Not reported
Cleanup Funding Entity:	Not reported
Grant Type:	N/A
Accomplishment Type:	Phase I Environmental Assessment
Accomplishment Count:	0
Cooperative Agreement Number:	97931801
Start Date:	05/20/2003 00:00:00
Ownership Entity:	Not reported
Completion Date:	05/20/2003 00:00:00

875 O'CONNER STREET (Continued) **1016345736**

Current Owner:	John Hunter
Did Owner Change:	Y
Cleanup Required:	N
Video Available:	N
Photo Available:	Y
Institutional Controls Required:	N
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	N
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Not reported
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported

875 O'CONNER STREET (Continued) **1016345736**

Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	Mostly vacant with single family home, nursery
Below Poverty Number:	1420
Below Poverty Percent:	16.1%
Meidan Income:	11862
Meidan Income Number:	4224
Meidan Income Percent:	47.8%
Vacant Housing Number:	313
Vacant Housing Percent:	10.5%
Unemployed Number:	495
Unemployed Percent:	5.6%

FINDS:

Registry ID: 110038698745

Environmental Interest/Information System

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an federal online database for Brownfields Grantees to electronically submit data directly to EPA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

D8 **PENBAY CORPORATION** **EDR Hist Cleaner** **1020060857**
SSE **1997 MANHATTAN** **N/A**
< 1/8 **PALO ALTO, CA 94303**
0.069 mi.
365 ft. **Site 2 of 2 in cluster D**

Relative: EDR Hist Cleaner
Higher

Actual: Year: Name: Type:
28 ft. 1971 PENBAY CORPORATION Drycleaning Plants, Except Rugs
1972 PENBAY CORPORATION Drycleaning Plants, Except Rugs
1973 PENBAY CORPORATION Drycleaning Plants, Except Rugs
1974 PENBAY CORPORATION Drycleaning Plants, Except Rugs

E9 **FOUR SEASONS HOTEL** **CERS HAZ WASTE** **S113140090**
ESE **2050 UNIVERSITY AVE** **HAZNET** **N/A**
< 1/8 **EAST PALO ALTO, CA 94303** **CERS**
0.112 mi.
589 ft. **Site 1 of 2 in cluster E**

Relative: CERS HAZ WASTE:
Higher
Name: FOUR SEASONS HOTEL
Actual: Address: 2050 UNIVERSITY AVE
29 ft. City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 31369
CERS ID: 10070101
CERS Description: Hazardous Waste Generator

HAZNET:
Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Year: 2012
GEPAID: CAL000300997
Contact: DANIEL RUGG DIR OF ENGINEERING
Telephone: 6504702831
Mailing Name: Not reported
Mailing Address: 2050 UNIVERSITY AVE
Mailing City,St,Zip: EAST PALO ALTO, CA 943030000
Gen County: San Mateo
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Tons: 0.21
CA Waste Code: 352-Other organic solids
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Year: 2011
GEPAID: CAL000300997
Contact: DANIEL RUGG DIR OF ENGINEERING
Telephone: 6504702831
Mailing Name: Not reported
Mailing Address: 2050 UNIVERSITY AVE
Mailing City,St,Zip: EAST PALO ALTO, CA 943030000
Gen County: San Mateo

FOUR SEASONS HOTEL (Continued) **S113140090**

TSD EPA ID: CAD982444481
TSD County: San Bernardino
Tons: 0.903
CA Waste Code: 135-Unspecified aqueous solution
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Year: 2011
GEPAID: CAL000300997
Contact: DANIEL RUGG DIR OF ENGINEERING
Telephone: 6504702831
Mailing Name: Not reported
Mailing Address: 2050 UNIVERSITY AVE
Mailing City,St,Zip: EAST PALO ALTO, CA 943030000
Gen County: San Mateo
TSD EPA ID: CAD982444481
TSD County: San Bernardino
Tons: 0.66
CA Waste Code: 331-Off-specification, aged or surplus organics
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Year: 2011
GEPAID: CAL000300997
Contact: DANIEL RUGG DIR OF ENGINEERING
Telephone: 6504702831
Mailing Name: Not reported
Mailing Address: 2050 UNIVERSITY AVE
Mailing City,St,Zip: EAST PALO ALTO, CA 943030000
Gen County: San Mateo
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Tons: 0.4
CA Waste Code: 352-Other organic solids
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Year: 2010
GEPAID: CAL000300997
Contact: DANIEL RUGG DIR OF ENGINEERING
Telephone: 6504702831
Mailing Name: Not reported
Mailing Address: 2050 UNIVERSITY AVE
Mailing City,St,Zip: EAST PALO ALTO, CA 943030000
Gen County: San Mateo

FOUR SEASONS HOTEL (Continued) **S113140090**

TSD EPA ID: CAD059494310
TSD County: Santa Clara
Tons: 0.2
CA Waste Code: 352-Other organic solids
Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Click this hyperlink while viewing on your computer to access
10 additional CA_HAZNET: record(s) in the EDR Site Report.

CERS:
Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 31369
CERS ID: 10070101
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 01-31-2018
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Training records not available during the inspection. Within 30 days, please provide verification of the training of all staff in emergency response and spill cleanup within the last 12 months.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 01-31-2018
Citation: 22 CCR 23 66273.35 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.35
Violation Description: Failure to accumulate universal waste for one year or less and to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received.
Violation Notes: Returned to compliance on 03/22/2018. See narrative for violation for hazardous waste above.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the

FOUR SEASONS HOTEL (Continued) **S113140090**

	generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 03/02/2016. Every waste container that I observed was incorrectly labeled or not labeled at all. All waste containers must be labeled compliantly. label all waste containers immediately and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	02-03-2016
Citation:	40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description:	Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.
Violation Notes:	Returned to compliance on 04/04/2016. There is no records for employees handling hazardous waste that they have been trained on hazardous waste. All employees handling waste must be trained to do so. Train employees and provide verification to the County within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	02-03-2016
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain and/or maintain an Active EPA ID.
Violation Notes:	Returned to compliance on 03/02/2016. Your EPA number is inactive. You must have an active EPA number. Reactivate and provide verification to the County within 30 days. DTSC Form 1358 provided
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	01-31-2018
Citation:	HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)
Violation Description:	Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met: (1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms. (2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f). (3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.
Violation Notes:	Returned to compliance on 03/30/2018. Observed hazardous dry cleaner waste in a drum with start date of November 2016 and universal fluorescent tubes with a start date of February 2016. All hazardous waste must be disposed within 6 months of accumulation start date and

FOUR SEASONS HOTEL (Continued) **S113140090**

all universal waste must be disposed within a year of accumulation start date. Please dispose of these two waste streams within the next 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 10-29-2013
Citation: HSC 6.95 25504(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25504(a)
Violation Description: Failure to complete and/or submit hazardous material inventory forms for all reportable hazardous materials on site.
Violation Notes: Returned to compliance on 01/08/2014. Diesel fuel for backup generator not reported on HMBP
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 01-31-2018
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes: Returned to compliance on 02/26/2018. HMBP must be certified annually. Last submission was September 2015. Please review and revise HMBP as needed within 30 days of receipt of new userID and password for the portal.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 01-31-2018
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Release/Leaks/Spills - General
Violation Notes: Returned to compliance on 03/22/2018. Spills observed in the dry cleaning chemicals storage area. Please clean up these spills immediately and maintain the area spill free. Provide verification of cleanup to inspector within 7 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34
Violation Description: Failure to properly label the following categories of universal waste as: 1) Each batteries or the container in which the batteries are

FOUR SEASONS HOTEL (Continued) **S113140090**

contained as "Universal Waste-Battery(ies)". 2) Each mercury-containing equipment or the container in which the mercury-containing equipment is contained as "Universal Waste -Mercury-Containing Equipment". 3) Each Florescent lamp or the container or package in which the lamps are contained as "Universal Waste-Lamp(s)". 4) Each electronic devices or the container or pallet in or on which the electronic devices are contained as "Universal Waste-Electronic Device(s)". 5) Each CRTs or the container or pallet in or on which the CRTs are contained as "Universal Waste-CRT(s)". 6) A container of CRT glass shall be labeled or marked clearly with the following phrase: "Universal Waste-CRT glass". 7) In lieu of labeling individual electronic devices, CRTs, and/or containers of CRT glass pursuant to subsections d) through f) of this section, a universal waste handler may combine, package, and accumulate those universal wastes in appropriate containers or within a designated area demarcated by boundaries that are clearly labeled with the applicable portion(s) of the following phrase: "Universal Waste-Electronic Device(s)/Universal Waste - CRT(s)/Universal Waste-CRT Glass".

Violation Notes: Returned to compliance on 03/02/2016. Your universal waste containers(batteries & lamps) are not labeled properly. All universal waste containers must be labeled compliantly. label all containers immediately and provide verification to the County within 30 days
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 22 CCR 23 66273.5 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.5
Violation Description: Failure to properly manage mercury containing lamp bulbs which are destined for reclamation or recycling from the date the bulbs were first discarded or broken.
Violation Notes: Returned to compliance on 03/02/2016. Your universal waste must be stored in closed containers when not actively filling them. Your batteries drums are overflowing and your lamps are stored in a box without a lid. Place all universal waste in a closed container. Provide verification to the County within 30 days
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 22 CCR 23 66273.36 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.36
Violation Description: Failure of the universal waste handler to initially train and provide annually, thereafter, all personnel who manage or who supervise those who manage universal wastes and to maintain a written record by date indicating the names of personnel who received the information. The universal waste handler shall maintain these records for at least three years from the date the person last managed any universal waste at the facility. This training shall include: 1) The types and hazards associated with the universal waste that personnel may manage at the facility; 2) The proper disposition of universal wastes managed at the

FOUR SEASONS HOTEL (Continued) **S113140090**

facility; 3) The proper procedures for responding to releases of universal wastes including the position titles and the means of contacting those personnel at the facility who are designated to respond to reports of releases and/or to respond to questions received from other personnel at the facility; and 4) The applicable requirements of universal waste regarding labeling, collecting, handling, consolidating, and shipping universal wastes at the facility, including, but not limited to, the prohibition on the disposal of universal wastes, and for personnel involved in shipping universal wastes who are ?hazmat employees?.

Violation Notes: Returned to compliance on 04/04/2016. There is no records for employees handling universal waste that they have been trained on universal waste. All employees handling universal waste must be trained to do so. Train employees and provide verification to the County within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 10-29-2013
Citation: 22 CCR 23 66273.5 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.5
Violation Description: Failure to properly manage mercury containing lamp bulbs which are destined for reclamation or recycling from the date the bulbs were first discarded or broken.
Violation Notes: Returned to compliance on 01/08/2014.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 01-31-2018
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description: Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.
Violation Notes: Returned to compliance on 03/22/2018. EPAID# has become deactivated. Please re-activate the number within 30 days. Use the materials provided by the inspector to re-activate the number and ensure electronic verification, which should enable better maintenance of the EPAID#.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 10-29-2013
Citation: 40 CFR 1 265.177 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.177
Violation Description: Failure to ensure incompatible waste and/or materials are not placed or stored in the same container or nearby or into an unwashed container, which previously contained incompatible waste and/or

FOUR SEASONS HOTEL (Continued) **S113140090**

materials, so that it does not potentially result in the following: 1) Generate extreme heat or pressure, fire or explosion, or violent reaction; 2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment; 3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; 4) Damage the structural integrity of the device or facility containing the waste; or 5) Through other like means threaten human health or the environment.

Violation Notes: Returned to compliance on 01/08/2014. Pool chemicals observed store together in a closet, muriatic acid and hypochlorite solution should be segregated to prevent chlorine gas.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 01-31-2018
Citation: HSC 6.95 25505.1 - California Health and Safety Code, Chapter 6.95, Section(s) 25505.1
Violation Description: Failure to notify property owner in writing that the business is subject to the business plan program and has complied with its provisions.
Violation Notes: The owner of the property must be given written notification of the storage of hazardous materials onsite and the availability of the HMBP. If Four Seasons leases the property, please use the template provided by the inspector (with revisions, as needed) to notify the property owner within 30 days and copy the inspector. Otherwise, within 30 days please provide a statement that Four Seasons is the property owner.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 10-29-2013
Citation: 19 CCR 4 2729.5 - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.5
Violation Description: Failure to submit inventory reports (Activities, Owner/Operator, Hazardous Materials Descriptions and Map pages, if required. Documentation must be resubmitted (for facilities which exceed EPCRA thresholds) or re-certified (for facilities which do not exceed EPCRA thresholds) by March 1.
Violation Notes: Returned to compliance on 01/08/2014.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or

FOUR SEASONS HOTEL (Continued) **S113140090**

	non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or surface water which could threaten human health or the environment..
Violation Notes:	Returned to compliance on 03/02/2016. Your facility has spills that I observed that have not been cleaned up. You must clean up all spills immediately upon discovery. Two areas where spills were observed: 1. Elevator mechanical room; spilled oil 2. Laundry chemical room; spills all over floor, walls and drums Additionally your dock storage closet for the pool chemicals contains chemicals incompatibly stored. This type of storage could lead to a leak or release. Clean up closet immediately Clean up these areas immediately and provide verification to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	10-29-2013
Citation:	19 CCR 4 2729.2(a)(1) - California Code of Regulations, Title 19, Chapter 4, Section(s) 2729.2(a)(1)
Violation Description:	Owner/Operator failed to complete and/or submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes:	Returned to compliance on 01/08/2014. 24 hour emergency response phone numbers not accurate on plan. One employee is no longer with the company.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	02-03-2016
Citation:	40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description:	Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes:	Returned to compliance on 03/02/2016. Based upon my observations of noncompliance with waste containers I believe you do not have an inspection program. You must inspect your waste areas weekly to ensure compliance. Develop a procedure for weekly inspections, maintain this program and provide verification of such a program to the County within 30 days
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	31369
Site Name:	FOUR SEASONS HOTEL
Violation Date:	02-03-2016
Citation:	HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description:	Business Plan Program - Release/Leaks/Spills - General
Violation Notes:	Returned to compliance on 03/02/2016. Your facility has spills that I observed that have not been cleaned up. You must clean up all spills immediately upon discovery. Two areas where spills were observed: 1. Elevator mechanical room; spilled oil 2. Laundry chemical room; spills all over floor, walls and drums Additionally your dock storage closet

FOUR SEASONS HOTEL (Continued) **S113140090**

for the pool chemicals contains chemicals incompatibly stored. This type of storage could lead to a leak or release. Clean up closet immediately Clean up these areas immediately and provide verification to the County within 30 days

Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 10-29-2013
Citation: 22 CCR 15 66265.33 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.33
Violation Description: Failure of the facility to test and maintain all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment.
Violation Notes: Returned to compliance on 01/08/2014. Facility had blocked eyewash station, blocked fire extinguishers throughout the kitchen and a blocked emergency gas shutoff valve.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Violation Date: 02-03-2016
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)
Violation Description: Failure to dispose of hazardous waste within 180 days (or 270 if waste is transported over 200 miles) for the generator who generates less than 1000 kilogram per month, but more than 100 kilograms per month.
Violation Notes: Returned to compliance on 03/02/2016. There is no evidence of your hazardous waste being shipped off-site since August 2014. I also observed numerous waste containers (Dry cleaning waste). in the Garage storage cage unlabeled and old (based on generation rates). You must dispose of waste every 180 days. Dispose of all waste on-site immediately and provide verification to the County within 30 days
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 01-31-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-31-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health

FOUR SEASONS HOTEL (Continued) **S113140090**

Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-31-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-31-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-03-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-03-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-22-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-30-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

FOUR SEASONS HOTEL (Continued) **S113140090**

Eval General Type: Other/Unknown
Eval Date: 10-14-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-31-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-31-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: portal approvals
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Site Address: 2050 UNIVERSITY AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 10-29-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HMRRP

FOUR SEASONS HOTEL (Continued) **S113140090**

Enf Action Source: CERS

Site ID: 31369
Site Name: FOUR SEASONS HOTEL
Site Address: 2050 UNIVERSITY AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 10-29-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Nilesh Lal
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 2050 UNIVERSITY AVE
Affiliation City: EAST PALO ALTO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94303
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: EPA HOTEL DEVELOPMENT LLC
Entity Title: Not reported
Affiliation Address: 2050 university
Affiliation City: east palo alto
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94303
Affiliation Phone: (650) 566-1200

Affiliation Type Desc: Environmental Contact
Entity Name: Nilesh Lal
Entity Title: Not reported
Affiliation Address: 2050 university ave
Affiliation City: east palo alto
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94303
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer

FOUR SEASONS HOTEL (Continued) **S113140090**

Entity Name:	Nilesh Lal
Entity Title:	Chief Engineer
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Fourseasons Hotel
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 470-2831
Affiliation Type Desc:	Parent Corporation
Entity Name:	FOUR SEASONS HOTEL
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200
Affiliation Type Desc:	Property Owner
Entity Name:	FourSeasons Hotel
Entity Title:	Not reported
Affiliation Address:	2050 university ave
Affiliation City:	east palo alto
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94303
Affiliation Phone:	(650) 566-1221

E10
ESE
< 1/8
0.112 mi.
589 ft.

FOUR SEASONS HOTEL SILICON VALLEY
2050 UNIVERSITY AVE
PALO ALTO, CA 94303

Site 2 of 2 in cluster E

RCRA-SQG | **1024876664** | **CAR000280834**

Relative: Higher

Actual: 29 ft.

RCRA-SQG:

Date form received by agency:	02/26/2018
Facility name:	FOUR SEASONS HOTEL SILICON VALLEY
Facility address:	2050 UNIVERSITY AVE PALO ALTO, CA 94303
EPA ID:	CAR000280834
Mailing address:	UNIVERSITY AVE PALO ALTO, CA 94303
Contact:	NILESH LAL
Contact address:	UNIVERSITY AVE PALO ALTO, CA 94303
Contact country:	US
Contact telephone:	650-470-2831
Contact email:	NILESH.LAL@FOURSEASONS.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	DTRS PALO ALTO
Owner/operator address:	UNIVERSITY AVENUE PALO ALTO, CA 94303
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	DTRS PALO ALTO
Owner/operator address:	UNIVERSITY AVENUE PALO ALTO, CA 94303
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No

FOUR SEASONS HOTEL SILICON VALLEY (Continued) **1024876664**

Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

. Waste code: 121
. Waste name: Alkaline solution (pH >12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)

. Waste code: F039
. Waste name: LEACHATE RESULTING FROM THE TREATMENT, STORAGE, OR DISPOSAL OF WASTES CLASSIFIED BY MORE THAN ONE WASTE CODE UNDER SUBPART D, OR FROM A MIXTURE OF WASTES CLASSIFIED UNDER SUBPARTS C AND D OF THIS PART. (LEACHATE RESULTING FROM THE MANAGEMENT OF ONE OR MORE OF THE FOLLOWING EPA HAZARDOUS WASTES AND NO OTHER HAZARDOUS WASTES RETAINS ITS HAZARDOUS WASTE CODE(S): F020, F021, F022, F023, F026, F027, AND/OR F028.)

Violation Status: No violations found

F11 **FOUR SEASONS HOTEL** **San Mateo Co. BI** **S113758339**
SE **2050 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.131 mi.
691 ft. **Site 1 of 7 in cluster F**

Relative: **Higher**

Actual: **29 ft.**

San Mateo Co. BI:

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0027499
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0050181
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

Name:	FOUR SEASONS HOTEL
Address:	2050 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0035723
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0053261
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS

FOUR SEASONS HOTEL (Continued) **S113758339**

Facility Status: Inactive, non-billable
Program Category: STORMWATER

Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0035723
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0053260
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Active, billable
Program Category: HAZARDOUS WASTE PROGRAM

Name: FOUR SEASONS HOTEL
Address: 2050 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0035723
Prog Element Code: STORES HAZ MAT <1,199GAL,9,999LB,4,799FT3
Record Id: PR0053259
Description: STORES HAZ MAT <1,199GAL,9,999LB,4,799CF
Facility Status: Active, billable
Program Category: BUSINESS PLAN PROGRAM

F12 **UNIVERSITY CIRCLE INVESTORS** **San Mateo Co. BI** **S113757610**
SSE **2000 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.138 mi.
726 ft. **Site 2 of 7 in cluster F**

Relative: **Higher**
Actual: **31 ft.**

San Mateo Co. BI:
Name: UNIVERSITY CIRCLE INVESTORS
Address: 2000 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0026993
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0041189
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

Name: UNIVERSITY CIRCLE INVESTORS
Address: 2000 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0026993
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0041187
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable
Program Category: BUSINESS PLAN PROGRAM

F13 **ARCO #749** **LUST** **S104493667**
SSE **1998 UNIVERSITY** **San Mateo Co. BI** **N/A**
1/8-1/4 **E PALO ALTO, CA 94303**
0.140 mi.
739 ft. **Site 3 of 7 in cluster F**

Relative: **Higher**

Actual: **31 ft.**

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	890003
How Discovered:	OM
Leak Cause:	Unknown
Leak Source:	Unknown
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	Not reported
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

San Mateo Co. BI:

Name:	UNIVERSITY ARCO
Address:	1998 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0018342
Prog Element Code:	UNDERGROUND TANK - GENERAL
Record Id:	PR0025693
Description:	UNDERGROUND TANK - GENERAL
Facility Status:	Inactive, non-billable
Program Category:	UNDERGROUND TANK PROGRAM

Name:	UNIVERSITY CIRCLE INVESTORS
Address:	1998 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0026843
Prog Element Code:	UNDERGROUND TANK - GENERAL
Record Id:	PR0039813
Description:	UNDERGROUND TANK - GENERAL
Facility Status:	Inactive, non-billable
Program Category:	UNDERGROUND TANK PROGRAM

F14 **UNIVERSITY ARCO #749** **SWEEPS UST** **S106826161**
SSE **1998 UNIVERSITY AVE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.140 mi.
739 ft. **Site 4 of 7 in cluster F**

Relative: **Higher**

Actual: **31 ft.**

SWEEPS UST:

Name:	UNIVERSITY ARCO #749
Address:	1998 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Not reported
Comp Number:	890009
Number:	Not reported

UNIVERSITY ARCO #749 (Continued) **S106826161**

Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 41-000-890009-000006
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REGULAR UNLE
Number Of Tanks: 5

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Not reported
Comp Number: 890009
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 41-000-890009-000007
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REGULAR UNLE
Number Of Tanks: Not reported

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Not reported
Comp Number: 890009
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 41-000-890009-000008
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REGULAR UNLE
Number Of Tanks: Not reported

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO

UNIVERSITY ARCO #749 (Continued) **S106826161**

Status:	Not reported
Comp Number:	890009
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890009-000009
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REGULAR UNLE
Number Of Tanks:	Not reported

Name:	UNIVERSITY ARCO #749
Address:	1998 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Not reported
Comp Number:	890009
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890009-000010
Tank Status:	Not reported
Capacity:	500
Active Date:	Not reported
Tank Use:	OIL
STG:	WASTE
Content:	WASTE OIL
Number Of Tanks:	Not reported

Name:	UNIVERSITY ARCO #749
Address:	1998 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Active
Comp Number:	890009
Number:	2
Board Of Equalization:	Not reported
Referral Date:	11-08-93
Action Date:	11-08-93
Created Date:	10-13-88
Owner Tank Id:	1
SWRCB Tank Id:	41-000-890009-000001
Tank Status:	A
Capacity:	6000
Active Date:	05-21-91
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	5

UNIVERSITY ARCO #749 (Continued) **S106826161**

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890009
Number: 2
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 2
SWRCB Tank Id: 41-000-890009-000002
Tank Status: A
Capacity: 6000
Active Date: 05-21-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890009
Number: 2
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 3
SWRCB Tank Id: 41-000-890009-000003
Tank Status: A
Capacity: 6000
Active Date: 05-21-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890009
Number: 2
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 4
SWRCB Tank Id: 41-000-890009-000004
Tank Status: A
Capacity: 6000
Active Date: 05-21-91
Tank Use: M.V. FUEL
STG: P

UNIVERSITY ARCO #749 (Continued) **S106826161**

Content: LEADED
Number Of Tanks: Not reported

Name: UNIVERSITY ARCO #749
Address: 1998 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890009
Number: 2
Board Of Equalization: Not reported
Referral Date: 11-08-93
Action Date: 11-08-93
Created Date: 10-13-88
Owner Tank Id: 5
SWRCB Tank Id: 41-000-890009-000005
Tank Status: A
Capacity: 500
Active Date: 05-21-91
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

F15 **NASSER DIN ROOHI** **SWEEPS UST** **S101623402**
SSE **1998 UNIVERSITY AVE** **CA FID UST** **N/A**
1/8-1/4 **PALO ALTO, CA 94303**
0.140 mi.
739 ft. **Site 5 of 7 in cluster F**

Relative: **Higher**

Actual: **31 ft.**

SWEEPS UST:
Name: NASSER DIN ROOHI
Address: 1998 UNIVERSITY AVE
City: PALO ALTO
Status: Active
Comp Number: 26961
Number: 9
Board Of Equalization: 44-000506
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: 1
SWRCB Tank Id: 43-006-026961-000001
Tank Status: A
Capacity: 6000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 5

Name: NASSER DIN ROOHI
Address: 1998 UNIVERSITY AVE
City: PALO ALTO
Status: Active
Comp Number: 26961
Number: 9
Board Of Equalization: 44-000506
Referral Date: 07-01-85

NASSER DIN ROOHI (Continued) **S101623402**

Action Date:	Not reported
Created Date:	02-29-88
Owner Tank Id:	2
SWRCB Tank Id:	43-006-026961-000002
Tank Status:	A
Capacity:	6000
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Name:	NASSER DIN ROOHI
Address:	1998 UNIVERSITY AVE
City:	PALO ALTO
Status:	Active
Comp Number:	26961
Number:	9
Board Of Equalization:	44-000506
Referral Date:	07-01-85
Action Date:	Not reported
Created Date:	02-29-88
Owner Tank Id:	3
SWRCB Tank Id:	43-006-026961-000003
Tank Status:	A
Capacity:	6000
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Name:	NASSER DIN ROOHI
Address:	1998 UNIVERSITY AVE
City:	PALO ALTO
Status:	Active
Comp Number:	26961
Number:	9
Board Of Equalization:	44-000506
Referral Date:	07-01-85
Action Date:	Not reported
Created Date:	02-29-88
Owner Tank Id:	4
SWRCB Tank Id:	43-006-026961-000004
Tank Status:	A
Capacity:	6000
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Name:	NASSER DIN ROOHI
Address:	1998 UNIVERSITY AVE
City:	PALO ALTO
Status:	Active
Comp Number:	26961

NASSER DIN ROOHI (Continued) **S101623402**

Number:	9
Board Of Equalization:	44-000506
Referral Date:	07-01-85
Action Date:	Not reported
Created Date:	02-29-88
Owner Tank Id:	5
SWRCB Tank Id:	43-006-026961-000005
Tank Status:	A
Capacity:	500
Active Date:	07-01-85
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	43008436
Regulated By:	UTNKA
Regulated ID:	00026961
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	1998 UNIVERSITY AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	PALO ALTO 94303
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

F16 **NASSER DIN ROOHI** **HIST UST** **U001595883**
SSE **1998 UNIVERSITY AVE** **N/A**
1/8-1/4 **PALO ALTO, CA 94303**
0.140 mi.
739 ft. **Site 6 of 7 in cluster F**

Relative: HIST UST:
Higher

Actual: **31 ft.**

Name:	NASSER DIN ROOHI
Address:	1998 UNIVERSITY AVE
City,State,Zip:	PALO ALTO, CA 94303
File Number:	0002CDF8
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002CDF8.pdf
Region:	STATE
Facility ID:	00000026961
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	0000000000
Owner Name:	ARCO PETROLEUM PRODUCTS CO.
Owner Address:	515 SOUTH FLOWER STREET
Owner City,St,Zip:	LOS ANGELES, CA 90071
Total Tanks:	0005

NASSER DIN ROOHI (Continued) **U001595883**

Tank Num:	001
Container Num:	0000000001
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	001
Container Num:	0000000001
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	002
Container Num:	0000000002
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	002
Container Num:	0000000002
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	003
Container Num:	0000000003
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	003
Container Num:	0000000003
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	004
Container Num:	0000000004
Year Installed:	1969

NASSER DIN ROOHI (Continued) **U001595883**

Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	004
Container Num:	0000000004
Year Installed:	1969
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	0000240
Leak Detection:	Stock Inventor, 10

Tank Num:	005
Container Num:	0000000005
Year Installed:	1969
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	WASTE OIL
Container Construction Thickness:	0000093
Leak Detection:	Stock Inventor

Tank Num:	005
Container Num:	0000000005
Year Installed:	1969
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	WASTE OIL
Container Construction Thickness:	0000093
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

F17 **ARCO** **LUST** **S101303086**
SSE **1998 UNIVERSITY** **HIST CORTESE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303** **CERS**
0.140 mi.
739 ft. **Site 7 of 7 in cluster F**

Relative: LUST:
Higher

Actual:
31 ft.

Name:	ARCO #0749
Address:	1998 UNIVERSITY AVENUE
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100031
Global Id:	T0608100031
Latitude:	37.459975
Longitude:	-122.1407063
Status:	Completed - Case Closed
Status Date:	09/25/2000
Case Worker:	DGM
RB Case Number:	41-0032
Local Agency:	SAN MATEO COUNTY LOP
File Location:	Local Agency Warehouse
Local Case Number:	890003

ARCO (Continued) **S101303086**

Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0608100031
Contact Type: Local Agency Caseworker
Contact Name: DENO MILANO
Organization Name: SAN MATEO COUNTY LOP
Address: 2000 ALAMEDA DE LAS PULGAS SUITE 100
City: SAN MATEO
Email: dmilano@smcgov.org
Phone Number: 6503726292

Global Id: T0608100031
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0608100031
Action Type: Other
Date: 04/01/1988
Action: Leak Discovery

Global Id: T0608100031
Action Type: ENFORCEMENT
Date: 02/16/1989
Action: Notice of Responsibility - #1

Global Id: T0608100031
Action Type: REMEDIATION
Date: 09/13/1994
Action: Excavation

Global Id: T0608100031
Action Type: REMEDIATION
Date: 09/13/1994
Action: Excavation

Global Id: T0608100031
Action Type: REMEDIATION
Date: 09/13/1994
Action: Pump & Treat (P&T) Groundwater

Global Id: T0608100031
Action Type: REMEDIATION
Date: 09/13/1994
Action: Other (Use Description Field)

Global Id: T0608100031
Action Type: Other
Date: 02/16/1989

ARCO (Continued) **S101303086**

Action: Leak Reported

LUST:
Global Id: T0608100031
Status: Open - Case Begin Date
Status Date: 04/01/1988

Global Id: T0608100031
Status: Completed - Case Closed
Status Date: 09/25/2000

SAN MATEO CO. LUST:
Name: ARCO #749
Address: 1998 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 890003
Facility Status: 9- Case Closed
Global ID: T0608100031
APN Number: Not reported
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

HIST CORTESE:
edr_fname: ARCO
edr_fadd1: 1998 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: CORTESE
Facility County Code: 41
Reg By: LTNKA
Reg Id: 41-0032

CERS:
Name: ARCO #0749
Address: 1998 UNIVERSITY AVENUE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 231379
CERS ID: T0608100031
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: DENO MILANO - SAN MATEO COUNTY LOP
Entity Title: Not reported
Affiliation Address: 2000 ALAMEDA DE LAS PULGAS SUITE 100

ARCO (Continued) **S101303086**

Affiliation City:	SAN MATEO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	6503726292

G18 **RAVENSWOOD CITY SCHOOL DISTRICT** **San Mateo Co. BI** **S124430647**
North **2110 EUCLID** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.153 mi.
808 ft. **Site 1 of 2 in cluster G**

Relative: **Lower**
Actual: **23 ft.**

San Mateo Co. BI:

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2110 EUCLID
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0065902
Prog Element Code:	MEDICAL WASTE MANAGEMENT - GENERAL
Record Id:	PR0088930
Description:	MEDICAL WASTE MANAGEMENT - GENERAL
Facility Status:	Active, billable
Program Category:	MEDICAL WASTE

H19 **GOODWILL PROPERTY** **LUST** **S106034992**
NNW **1475 E BAYSHORE RD** **N/A**
1/8-1/4 **EAST PALO ALTO, CA**
0.156 mi.
825 ft. **Site 1 of 2 in cluster H**

Relative: **Lower**
Actual: **23 ft.**

SAN MATEO CO. LUST:

Name:	GOODWILL PROPERTY
Address:	1475 E BAYSHORE RD
City,State,Zip:	EAST PALO ALTO, CA
Region:	SAN MATEO
Facility ID:	890023
Facility Status:	9- Case Closed
Global ID:	T0608156921
APN Number:	063184010
Case Type:	EAST PALO ALTO, CA
EDR Link ID:	EAST PALO ALTO, CA

H20 **GOODWILL PROPERTY** **LUST** **S109285798**
NNW **1475 EAST BAYSHORE ROAD** **CERS** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.156 mi.
825 ft. **Site 2 of 2 in cluster H**

Relative: **Lower**
Actual: **23 ft.**

LUST:

Name:	GOODWILL PROPERTY
Address:	1475 EAST BAYSHORE ROAD
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site

GOODWILL PROPERTY (Continued) **S109285798**

Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608156921
Global Id:	T0608156921
Latitude:	37.4633794917219
Longitude:	-122.144901752472
Status:	Completed - Case Closed
Status Date:	02/26/2004
Case Worker:	Not reported
RB Case Number:	Not reported
Local Agency:	Not reported
File Location:	Local Agency Warehouse
Local Case Number:	890023
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0608156921
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0608156921
Action Type:	Other
Date:	10/01/1998
Action:	Leak Discovery
Global Id:	T0608156921
Action Type:	REMEDIATION
Date:	08/24/2003
Action:	Excavation
Global Id:	T0608156921
Action Type:	ENFORCEMENT
Date:	02/26/2004
Action:	Closure/No Further Action Letter - #20040226
Global Id:	T0608156921
Action Type:	ENFORCEMENT
Date:	05/19/2003
Action:	Staff Letter - #20030519A
Global Id:	T0608156921
Action Type:	ENFORCEMENT
Date:	03/20/2003
Action:	Notice of Responsibility - #20030320
Global Id:	T0608156921
Action Type:	ENFORCEMENT
Date:	04/11/2003
Action:	Staff Letter - #20030411
Global Id:	T0608156921

GOODWILL PROPERTY (Continued) **S109285798**

Action Type: ENFORCEMENT
Date: 05/19/2003
Action: Staff Letter - #20030519B

Global Id: T0608156921
Action Type: Other
Date: 10/01/1998
Action: Leak Reported

Global Id: T0608156921
Action Type: RESPONSE
Date: 05/22/2003
Action: Preliminary Site Assessment Workplan

Global Id: T0608156921
Action Type: RESPONSE
Date: 07/11/2003
Action: Soil and Water Investigation Report

Global Id: T0608156921
Action Type: RESPONSE
Date: 12/01/2003
Action: Electronic Reporting Submittal Due

Global Id: T0608156921
Action Type: RESPONSE
Date: 11/19/2003
Action: Tank Removal Report / UST Sampling Report

LUST:
Global Id: T0608156921
Status: Open - Case Begin Date
Status Date: 10/01/1998

Global Id: T0608156921
Status: Open - Site Assessment
Status Date: 03/20/2003

Global Id: T0608156921
Status: Open - Remediation
Status Date: 05/19/2003

Global Id: T0608156921
Status: Open - Verification Monitoring
Status Date: 09/29/2003

Global Id: T0608156921
Status: Completed - Case Closed
Status Date: 02/26/2004

CERS:
Name: GOODWILL PROPERTY
Address: 1475 EAST BAYSHORE ROAD
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 252551

GOODWILL PROPERTY (Continued) **S109285798**

CERS ID: T0608156921
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

I21 **CHINA JOY** **San Mateo Co. BI** **S123179779**
SSE **1972 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.159 mi.
837 ft. **Site 1 of 12 in cluster I**

Relative: **Higher**
Actual: **33 ft.**

San Mateo Co. BI:
Name: CHINA JOY
Address: 1972 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0002609
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0049955
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

G22 **RAVENSWOOD CITY SCHOOL DISTRICT** **RCRA NonGen / NLR** **1024875448**
North **2120 EUCLID AVE** **CAL912605650**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.159 mi.
842 ft. **Site 2 of 2 in cluster G**

Relative: **Lower**
Actual: **23 ft.**

RCRA NonGen / NLR:
Date form received by agency: 09/17/1991
Facility name: RAVENSWOOD CITY SCHOOL DISTRICT
Facility address: 2120 EUCLID AVE
EAST PALO ALTO, CA 94303-1703
EPA ID: CAL912605650
Contact: DELMA CAMACHO
Contact address: 2120 EUCLID AVE
EAST PALO ALTO, CA 94303-1703
Contact country: Not reported
Contact telephone: 650-838-3569
Contact email: DCAMACHO@RAVENSWOODSCHOOLS.ORG
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **1024875448**

Owner/operator name:	DELMA CAMACHO
Owner/operator address:	2120 EUCLID AVE
	EAST PALO ALTO, CA 94303
Owner/operator country:	Not reported
Owner/operator telephone:	650-838-3569
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	RAVENSWOOD CITY SCHOOL DISTRICT
Owner/operator address:	2120 EUCLID AVE
	EAST PALO ALTO, CA 94303
Owner/operator country:	Not reported
Owner/operator telephone:	650-329-2800
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

J23 **CHEVRON SERVICE STATION 91081** **LUST** **S103641369**
NE **2101 UNIVERSITY AVE** **SWEEPS UST** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303** **HIST CORTESE**
0.169 mi. **CERS**
894 ft. **Site 1 of 5 in cluster J**

Relative: LUST:
Lower

Name:	CHEVRON 9-1081
Address:	2101 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100926

Actual:
23 ft.

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Global Id:	T0608100926
Latitude:	37.462912312
Longitude:	-122.14197901
Status:	Completed - Case Closed
Status Date:	07/17/2012
Case Worker:	Not reported
RB Case Number:	41-1012
Local Agency:	Not reported
File Location:	Local Agency
Local Case Number:	890013
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Extracted from CRA's DECEMBER 19, 2008 DISPENSER ISLAND AND PRODUCT LINE SOIL SAMPLING REPORT, San Mateo County does not take responsibility for the accuracy of the statements made or any professional interpretations made in the referenced report. The site is an active Chevron service station located on the northwest corner of the intersection of University Avenue and Donahoe Street in East Palo Alto, California in a mixed residential and commercial area. Site structures include a station building, three gasoline underground gasoline storage tanks (USTs), eight dispensers, and associated underground piping. 1997 Dispenser Islands and Product Piping Removal: In February 1997, Touchstone Developments (Touchstone) of Santa Rosa, California oversaw the removal of four dispenser islands and the associated piping, and collected soil samples beneath the former dispenser islands and product lines at approximately 3 fbg. No groundwater was encountered in the pits. Eight of the eleven samples contained total petroleum hydrocarbons as gasoline (TPHg) at concentrations ranging from 0.084 milligrams per kilogram (mg/kg) to 260 mg/kg. Lead was detected in seven soil samples with concentrations ranging between 10 mg/kg and 24 mg/kg (consistent with naturally occurring lead concentrations). Approximately 120 cubic yards (yd3) of soil were excavated from the product line trenches; 100 yd3 were removed from the site and 20 yd3 of were reused as backfill. 1997 Monitoring Well Installation: In September 1997, G-R of Dublin, California installed groundwater monitoring wells MW-1 through MW-3. Soil samples collected within the capillary fringe from well borings MW-1 and MW-2 contained up to 18 mg/kg TPHg, 0.3 mg/kg benzene, and 1.5 mg/kg methyl tertiary-butyl ether (MTBE). No TPHg, benzene, or MTBE were detected in soil from the capillary fringe from MW-3. 1998 Monitoring Well Installation: In June 1998, G-R installed groundwater monitoring wells MW-4 through MW-6. A soil sample collected from MW-4 at 10.5 fbg contained 970 mg/kg TPHg and 2.2 mg/kg benzene. No TPHg or benzene was detected in soil samples collected from offsite wells MW-5 and MW-6. MTBE was detected in the initial groundwater sample from MW-5 and MW-6 at 200 micrograms per liter (%g/L) and 360 %g/L, respectively. 2004 Well Receptor Survey Report: Cambria Environmental Technology Inc. (Cambria) conducted a well receptor survey of all properties within 300 feet upgradient and crossgradient, and 1,000 feet downgradient of the site. Of the 75 questionnaires mailed, 21 questionnaires were returned and identified one active and one inactive well within the survey area. An active domestic irrigation well is located at 2126 University Avenue approximately 350 feet north-northeast (downgradient) of the site, and the inactive well is located at 2137 Cooley Avenue, approximately 860 feet northeast (downgradient) of the site. The active irrigation well has a shallow completion depth (18

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

feet) and small casing diameter (4-inches). Groundwater extraction rates from this well are expected to be very low and are not likely to significantly affect local groundwater flow or induce petroleum hydrocarbon migration from the site. No sumps were identified in the returned questionnaires. Cambria also contacted the SMCHD and American Water Services (AWS V the local water purveyor) to identify other potential water supply wells within a 2,000-foot radius of the site. SMCHDs records identified eight irrigation wells, eleven monitoring wells, six properly destroyed wells, and one improperly destroyed well within a 2,000-foot radius of the site. No municipal drinking-water wells were identified by the SMCHD or AWS within 1,500 feet downgradient of the site. No drinking-water wells were identified within 800 feet upgradient or crossgradient from the site. AWS stated that they do not have any water supply wells within 2,000 feet of the site and that they currently receive their water from the HetchHetchy reservoir. 2004 Monitoring Wells Installation: In August 2004, Cambria installed groundwater monitoring wells MW-7 and MW-8. No TPHg or BTEX were detected in any soil samples collected from the well borings. The initial groundwater samples collected from MW-7 and MW-8 contained MTBE concentrations of 1,000 %g/L and 2,900 %g/L, respectively. 2005 OffSite Subsurface Investigation: In August 2005, Cambria advanced direct push borings B-1 through B-6. The results of the investigation indicated that dissolved MTBE in groundwater had migrated northeast (downgradient) of the site. 2006 OffSite Monitoring Well Installation: In March 2006, Cambria installed monitoring wells MW-9, MW-10 and MW-11 to further define the lateral and vertical extent of the dissolved MTBE plume. No TPHg or BTEX were detected in any groundwater samples collected from wells MW-9, MW-10 and MW-11. MTBE was only detected in the groundwater sample from well MW-11, at 11 %g/L. 2007 Well Destruction: In August and September 2007, CRA destroyed offsite wells MW-7, MW-8, and MW-9, located on the properties at 2100-2118 University Avenue, at the request of the property owner. Wells MW-5, MW-6, MW-10, and MW-11, located in high traffic areas of University and Capitol Avenues, were also destroyed due to the health and safety risks associated with the monitoring and maintenance of these wells. Well MW-7 was destroyed by drilling out the sand pack and casing. The rest of the wells were destroyed by pressure grouting. On November 10, 2008, CRA collected nine compliance soil samples beneath the dispensers and in the product piping trench between the southern dispenser islands.

LUST:

Global Id:	T0608100926
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0608100926
Action Type:	ENFORCEMENT
Date:	07/22/2009
Action:	Staff Letter - #20090722

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2008
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 07/20/2010
Action: Soil and Water Investigation Workplan

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 04/20/2010
Action: Staff Letter - #20100420

Global Id: T0608100926
Action Type: RESPONSE
Date: 12/03/2010
Action: Soil and Water Investigation Report

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 08/04/2010
Action: Staff Letter - #20100804

Global Id: T0608100926
Action Type: Other
Date: 04/08/1997
Action: Leak Discovery

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 02/18/2011
Action: Staff Letter - #20110218

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 12/14/2010
Action: Staff Letter - #20101214

Global Id: T0608100926
Action Type: ENFORCEMENT

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Date: 10/18/2011
Action: Staff Letter - #20111018

Global Id: T0608100926
Action Type: RESPONSE
Date: 10/18/2012
Action: Well Destruction Report

Global Id: T0608100926
Action Type: RESPONSE
Date: 02/14/2011
Action: Other Report / Document - Regulator Responded

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 05/09/1997
Action: Notice of Responsibility - #1

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 07/28/2004
Action: Staff Letter - #20040728

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 03/21/2006
Action: Staff Letter - #20060321

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 06/30/2004
Action: Staff Letter - #20040630

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 10/26/2005
Action: * Historical Enforcement - #20051026

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 04/27/2000
Action: Staff Letter - #20000427

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 07/30/2007
Action: * Historical Enforcement - #20070730

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 03/09/2005
Action: * Verbal Communication - #20050309

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 08/02/2006
Action: Staff Letter - #20060802

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 12/05/2006
Action: Technical Correspondence / Assistance / Other - #20061205

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 03/15/2006
Action: * Historical Enforcement - #20060315

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 12/04/2002
Action: Staff Letter - #20021204

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 06/06/2005
Action: Staff Letter - #20050606

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 01/11/2006
Action: Staff Letter - #20060111

Global Id: T0608100926
Action Type: Other
Date: 05/01/1997
Action: Leak Reported

Global Id: T0608100926
Action Type: ENFORCEMENT
Date: 07/17/2012
Action: Closure/No Further Action Letter - #20120717

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2006
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2005
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2007
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2006
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Date: 11/15/2003
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2000
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2004
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2001
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2002
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 12/04/2003
Action: Soil and Water Investigation Report

Global Id: T0608100926
Action Type: RESPONSE
Date: 07/19/2004
Action: Other Report / Document

Global Id: T0608100926
Action Type: RESPONSE
Date: 07/20/2004
Action: Unknown

Global Id: T0608100926
Action Type: RESPONSE
Date: 09/30/2004
Action: Unknown

Global Id: T0608100926
Action Type: RESPONSE
Date: 10/03/2005
Action: Other Report / Document

Global Id: T0608100926
Action Type: RESPONSE
Date: 06/08/2006
Action: Soil and Water Investigation Report

Global Id: T0608100926
Action Type: RESPONSE
Date: 08/02/2007
Action: Other Report / Document

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Global Id: T0608100926
Action Type: RESPONSE
Date: 03/30/2007
Action: Other Report / Document

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/30/2005
Action: Other Workplan

Global Id: T0608100926
Action Type: RESPONSE
Date: 03/22/2006
Action: Soil and Water Investigation Workplan

Global Id: T0608100926
Action Type: RESPONSE
Date: 10/30/2007
Action: Unknown

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2008
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2007
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2002
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2001
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 05/15/2004
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Date: 05/15/2003
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 11/15/2005
Action: Monitoring Report - Semi-Annually

Global Id: T0608100926
Action Type: RESPONSE
Date: 12/04/2003
Action: Sensitive Receptor Survey Report

Global Id: T0608100926
Action Type: RESPONSE
Date: 02/14/2006
Action: Soil and Water Investigation Workplan

LUST:
Global Id: T0608100926
Status: Open - Case Begin Date
Status Date: 03/16/1997

Global Id: T0608100926
Status: Open - Site Assessment
Status Date: 03/16/1997

Global Id: T0608100926
Status: Open - Site Assessment
Status Date: 12/04/2002

Global Id: T0608100926
Status: Open - Verification Monitoring
Status Date: 03/01/2006

Global Id: T0608100926
Status: Completed - Case Closed
Status Date: 07/17/2012

SAN MATEO CO. LUST:
Name: CHEVRON 9-1081
Address: 2101 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 890013
Facility Status: 9- Case Closed
Global ID: T0608100926
APN Number: 063292180
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

SWEEPS UST:
Name: CHEVRON SERVICE STATION 91081
Address: 2101 UNIVERSITY AVE
City: EAST PALO ALTO

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

Status: Active
Comp Number: 890013
Number: 2
Board Of Equalization: Not reported
Referral Date: 03-30-94
Action Date: 03-30-94
Created Date: 10-13-88
Owner Tank Id: 1
SWRCB Tank Id: 41-000-890013-000001
Tank Status: A
Capacity: 10000
Active Date: 03-30-94
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Name: CHEVRON SERVICE STATION 91081
Address: 2101 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890013
Number: 2
Board Of Equalization: Not reported
Referral Date: 03-30-94
Action Date: 03-30-94
Created Date: 10-13-88
Owner Tank Id: 2
SWRCB Tank Id: 41-000-890013-000002
Tank Status: A
Capacity: 10000
Active Date: 03-30-94
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: Not reported

Name: CHEVRON SERVICE STATION 91081
Address: 2101 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Active
Comp Number: 890013
Number: 2
Board Of Equalization: Not reported
Referral Date: 03-30-94
Action Date: 03-30-94
Created Date: 10-13-88
Owner Tank Id: 3
SWRCB Tank Id: 41-000-890013-000003
Tank Status: A
Capacity: 10000
Active Date: 03-30-94
Tank Use: M.V. FUEL
STG: P
Content: PLUS UNLEADED
Number Of Tanks: Not reported

CHEVRON SERVICE STATION 91081 (Continued) **S103641369**

HIST CORTESE:

edr_fname:	CHEVRON
edr_fadd1:	2101 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	CORTESE
Facility County Code:	41
Reg By:	LTNKA
Reg Id:	41-1012

CERS:

Name:	CHEVRON 9-1081
Address:	2101 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	240549
CERS ID:	T0608100926
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

J24 **CHEVRON SERVICE STATION #1081** **UST** **U004262432**
NE **2101 UNIVERSITY AVE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.169 mi.
894 ft. **Site 2 of 5 in cluster J**

Relative:
Lower

Actual:
23 ft.

UST:

Name:	CHEVRON SERVICE STATION #1081
Address:	2101 UNIVERSITY AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	41-000-018329
Permitting Agency:	San Mateo County Environmental Health
Latitude:	37.462963
Longitude:	-122.142189

J25 **91061** **HIST UST** **U001595857**
NE **2101 UNIVERSITY AV** **N/A**
1/8-1/4 **PALO ALTO, CA 94303**
0.169 mi.
894 ft. **Site 3 of 5 in cluster J**

Relative:
Lower

Actual:
23 ft.

HIST UST:

Name:	91061
Address:	2101 UNIVERSITY AV
City,State,Zip:	PALO ALTO, CA 94303
File Number:	0002CFED
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002CFED.pdf

91061 (Continued) **U001595857**

Region:	STATE
Facility ID:	00000061983
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	STORUM, WILLIAM A.
Telephone:	4153263194
Owner Name:	CHEVRON U.S.A. INC.
Owner Address:	575 MARKET
Owner City,St,Zip:	SAN FRANCISCO, CA 94105
Total Tanks:	0004
Tank Num:	001
Container Num:	1
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	001
Container Num:	1
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1970
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1970
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor
Tank Num:	003

91061 (Continued) **U001595857**

Container Num:	3
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0000250
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	4
Year Installed:	1970
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	0000100
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	4
Year Installed:	1970
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	0000100
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

J26 **CHEVRON 9-1081** **LUST S105030392**
NE **2101 UNIVERSITY** **San Mateo Co. BI N/A**
1/8-1/4 **E PALO ALTO, CA 94303**
0.169 mi.
894 ft. **Site 4 of 5 in cluster J**

Relative:
Lower

Actual:
23 ft.

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Pollution Characterization
Case Number:	890013
How Discovered:	OM
Leak Cause:	Unknown
Leak Source:	Unknown
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	Not reported
Pollution Characterization Began:	1/1/1965
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

San Mateo Co. BI:

Name:	CHEVRON SERVICE STATION #1081
Address:	2101 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0018329

CHEVRON 9-1081 (Continued) **S105030392**

Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040386
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0018329
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0022981
Description: UNDERGROUND TANK - GENERAL
Facility Status: Active, billable
Program Category: UNDERGROUND TANK PROGRAM

Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0018329
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0038463
Description: GENERATES <27 GAL/YEAR
Facility Status: Active, billable
Program Category: HAZARDOUS WASTE PROGRAM

Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0018329
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0025552
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Active, billable
Program Category: BUSINESS PLAN PROGRAM

J27 **CHEVRON SERVICE STATION #1081** **CERS HAZ WASTE** **S121737760**
NE **2101 UNIVERSITY AVE** **CERS TANKS** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303** **CERS**
0.169 mi.
894 ft. **Site 5 of 5 in cluster J**

Relative:
Lower

Actual:
23 ft.

CERS HAZ WASTE:
Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 104877
CERS ID: 10066609
CERS Description: Hazardous Waste Generator

CERS TANKS:
Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Site ID: 104877
CERS ID: 10066609
CERS Description: Underground Storage Tank

CERS:
Name: CHEVRON SERVICE STATION #1081
Address: 2101 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 104877
CERS ID: 10066609
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 104877
Site Name: CHEVRON SERVICE STATION #1081
Violation Date: 12-06-2018
Citation: 23 CCR 16 2632(c)(2)(B), 2634(d)(1)(a), 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(c)(2)(B), 2634(d)(1)(a), 2636(f)(1)
Violation Description: Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes: Returned to compliance on 01/10/2019. Sensor S-1 (Diesel piping and UDCs 1-4) failed to trigger alarm. Please repair/replace sensor and test with inspector present within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 104877
Site Name: CHEVRON SERVICE STATION #1081
Violation Date: 12-21-2015
Citation: HSC 6.7 25290.1(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(e)
Violation Description: Failure to maintain the interstitial space under constant vacuum, pressure, or hydrostatic such that a breach in the primary or secondary containment is detected before the liquid or vapor phase of the hazardous substance stored in the UST tank is released into the environment. (Product Tight)
Violation Notes: Returned to compliance on 12/21/2015. Tank 4, Diesel only VPH, 2014 install VPH for Tank 4 only: S2 vac float failed initially. New float installed, tested and passed while onsite
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-02-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-02-2015

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-02-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	01-15-2019
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	rvw sb989 results
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	01-16-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	VPH plan check system for new Diesel tanks.
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	02-20-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	secondary containment test results efiled.
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-04-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	03-24-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-24-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: UST forms in CERS
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-30-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: hMBP AND UST TANK FORMS REVIEWED
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-09-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-12-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Review UST forms in CERs
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-21-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: ELD TEST RESULTS efiled
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-12-2014
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: AMC scanning and contacting chevron reps
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval General Type:	Other/Unknown
Eval Date:	06-18-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	07-02-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	SB989 review and efiled
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	07-05-2013
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	CERS review and approvals
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	07-07-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	07-26-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	08-15-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	SB989 report
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	08-18-2015
Violations Found:	No

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval Type: Other, not routine, done by local agency
Eval Notes: includes HMBP review
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-29-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Documentation follow up
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-30-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-30-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-06-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-06-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-07-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-07-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-07-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-07-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-07-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-07-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-19-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-20-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Diesel STP not re-setting after 208 alarm triggered. Replaced 208 in diesel, retested, passed. Diesel piping, UDCs, and vent sump under vacuum. Each tested for communication and alarm. To facilitate testing and reduce the time required for the certification and inspection your technician recommends placing gauge or ball valve on end of test line. Problems testing the PLLD for diesel were resolved after the diesel turbine re-established vacuum.
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	12-20-2016
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-21-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-21-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	12-21-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	12-24-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Eval Program: UST
Eval Source: CERS

Coordinates:
Site ID: 104877
Facility Name: CHEVRON SERVICE STATION #1081
Env Int Type Code: HWG
Program ID: 10066609
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.462952
Longitude: -122.142174

Affiliation:
Affiliation Type Desc: Identification Signer
Entity Name: Ted Lamph
Entity Title: Retail OE/HES Specialist
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A.)
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (650) 326-3194

Affiliation Type Desc: Parent Corporation
Entity Name: CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: San Mateo County Environmental Health
Entity Title: Not reported
Affiliation Address: 2000 Alameda de las Pulgas, Suite 100
Affiliation City: San Mateo
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94403
Affiliation Phone: (650) 372-6200

Affiliation Type Desc: Environmental Contact
Entity Name: CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A.)

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Entity Title:	Not reported
Affiliation Address:	PO BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94583
Affiliation Phone:	Not reported
Affiliation Type Desc:	UST Permit Applicant
Entity Name:	CHARLES BITTLE
Entity Title:	RETAIL HES
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 842-9002
Affiliation Type Desc:	UST Tank Owner
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002
Affiliation Type Desc:	Document Preparer
Entity Name:	TED LAMPH
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	PO BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94583
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A.)
Entity Title:	Not reported
Affiliation Address:	PO BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

CHEVRON SERVICE STATION #1081 (Continued) **S121737760**

Affiliation Type Desc:	Property Owner
Entity Name:	CHEVRON PRODUCTS COMPANY(A DIVISION OF CHEVRON U.S.A.)
Entity Title:	Not reported
Affiliation Address:	PO BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

Affiliation Type Desc:	UST Property Owner Name
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

Affiliation Type Desc:	UST Tank Operator
Entity Name:	CHEVRON PRODUCTS COMPANY (A DIVISION OF CHEVRON U.S.A. INC.)
Entity Title:	Not reported
Affiliation Address:	P.O. BOX 6004, ATTN: PERMIT DESK
Affiliation City:	SAN RAMON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94583
Affiliation Phone:	(925) 842-9002

I28 **CRESENT CLEANERS** **RCRA-SQG 1000379931**
SSE **1930 UNIVERSITY AVENUE** **FINDS CAD981622814**
1/8-1/4 **PALO ALTO, CA 94303** **ECHO**
0.170 mi.
896 ft. **Site 2 of 12 in cluster I**

Relative:
Higher

Actual:
33 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	CRESENT CLEANERS
Facility address:	1930 UNIVERSITY AVE PALO ALTO, CA 94303
EPA ID:	CAD981622814
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

CRESENT CLEANERS (Continued) **1000379931**

Owner/Operator Summary:

Owner/operator name:	ENRIGHT GERALOINE
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	12/29/1987
Site name:	CRESENT CLEANERS
Classification:	Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110006472138

Environmental Interest/Information System

CRESENT CLEANERS (Continued) **1000379931**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000379931
Registry ID:	110006472138
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110006472138

I29 **SUTTER BAY MEDICAL FOUNDATION/P.A.M.F.** **RCRA NonGen / NLR** **1024862401**
SE **1950 UNIVERSITY AVE** **CAL000430917**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.170 mi.
900 ft. **Site 3 of 12 in cluster I**

Relative: **Higher**

Actual: **32 ft.**

RCRA NonGen / NLR:

Date form received by agency:	09/20/2017
Facility name:	SUTTER BAY MEDICAL FOUNDATION/P.A.M.F.
Facility address:	1950 UNIVERSITY AVE EAST PALO ALTO, CA 94303
EPA ID:	CAL000430917
Mailing address:	2350 W. EL CAMINO REAL MOUNATIN VIEW, CA 94040
Contact:	DIANA ECHOLS
Contact address:	2350 W. EL CAMINO REAL MOUNATIN VIEW, CA 94040
Contact country:	Not reported
Contact telephone:	650-934-3577
Contact email:	FACILITIES2@PAMF.ORG
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	DIANA ECHOLS
Owner/operator address:	2350 W. EL CAMINO REAL MOUNATIN VIEW, CA 94040
Owner/operator country:	Not reported
Owner/operator telephone:	650-934-3577
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	PALO ALTO MEDICAL FOUNDATION
Owner/operator address:	2350 W. EL CAMINO REAL MOUNATIN VIEW, CA 94040

SUTTER BAY MEDICAL FOUNDATION/P.A.M.F. (Continued) **1024862401**

Owner/operator country:	Not reported
Owner/operator telephone:	650-934-3577
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

I30 **FUEL** **San Mateo Co. BI** **S123181762**
SE **1950 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.170 mi.
900 ft. **Site 4 of 12 in cluster I**

Relative:
Higher

Actual:
32 ft.

San Mateo Co. BI:

Name:	FUEL
Address:	1950 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0028213
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0047250
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

I31 **SF SOUP CO** **San Mateo Co. BI** **S123181776**
SE **1950 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.170 mi.
900 ft. **Site 5 of 12 in cluster I**

Relative: San Mateo Co. BI:
Higher

Actual: Name: SF SOUP CO
32 ft. Address: 1950 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0028239
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0047617
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

I32 **SUTTER BAY MEDICAL FOUNDATION** **San Mateo Co. BI** **S123184413**
SE **1950 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.170 mi.
900 ft. **Site 6 of 12 in cluster I**

Relative: San Mateo Co. BI:
Higher

Actual: Name: SUTTER BAY MEDICAL FOUNDATION
32 ft. Address: 1950 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0064649
Prog Element Code: GENERATES <27 GAL/YEAR
Record Id: PR0087697
Description: GENERATES <27 GAL/YEAR
Facility Status: Active, billable
Program Category: HAZARDOUS WASTE PROGRAM

Name: SUTTER BAY MEDICAL FOUNDATION
Address: 1950 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0064649
Prog Element Code: SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id: PR0087512
Description: SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status: Active, billable
Program Category: MEDICAL WASTE

I33 **SUTTER BAY MEDICAL FOUNDATION** **San Mateo Co. BI** **S123184350**
SE **1950 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.170 mi.
900 ft. **Site 7 of 12 in cluster I**

Relative: San Mateo Co. BI:
Higher

Actual: Name: SUTTER BAY MEDICAL FOUNDATION
32 ft. Address: 1950 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO

SUTTER BAY MEDICAL FOUNDATION (Continued) **S123184350**

Facility ID: FA0063512
Prog Element Code: SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id: PR0086357
Description: SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status: Active, billable
Program Category: MEDICAL WASTE

I34 **UNIVERSITY CIRCLE INVESTORS** **San Mateo Co. BI** **S113757609**
SE **1950 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.170 mi.
900 ft. **Site 8 of 12 in cluster I**

Relative: **Higher**
Actual: **32 ft.**

San Mateo Co. BI:
Name: UNIVERSITY CIRCLE INVESTORS
Address: 1950 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0026992
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0041186
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

Name: UNIVERSITY CIRCLE INVESTORS
Address: 1950 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0026992
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0041184
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable
Program Category: BUSINESS PLAN PROGRAM

I35 **CEI MEDICAL GROUP** **San Mateo Co. BI** **S123182585**
SSE **1900 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.172 mi.
906 ft. **Site 9 of 12 in cluster I**

Relative: **Higher**
Actual: **32 ft.**

San Mateo Co. BI:
Name: CEI MEDICAL GROUP
Address: 1900 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0045769
Prog Element Code: SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id: PR0060951
Description: SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status: Active, billable
Program Category: MEDICAL WASTE

I36 **WELLS REIT II-UNIVERSITY CIRCLE** **San Mateo Co. BI** **S113757608**
SSE **1900 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.172 mi.
906 ft. **Site 10 of 12 in cluster I**

Relative:
Higher

Actual:
32 ft.

San Mateo Co. BI:

Name:	WELLS REIT II-UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0026991
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0041183
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

Name:	WELLS REIT II-UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0026991
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0041181
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Inactive, non-billable
Program Category:	BUSINESS PLAN PROGRAM

Name:	AT&T MOBILITY - FOREST AVE & CENTER DR (USID47675)
Address:	1900 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0046944
Prog Element Code:	STORES HAZ MAT <219GAL,1,999LB, 879FT3
Record Id:	PR0063949
Description:	STORES HAZ MAT <219GAL,1,999LB, 879CF
Facility Status:	Active, billable
Program Category:	BUSINESS PLAN PROGRAM

Name:	AT&T MOBILITY - FOREST AVE & CENTER DR (USID47675)
Address:	1900 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0046944
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0081586
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

I37 **UNIVERSITY CIRCLE** **San Mateo Co. BI** **S121700842**
SSE **1900 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.172 mi.
906 ft. **Site 11 of 12 in cluster I**

Relative: **Higher**
Actual: **32 ft.**

San Mateo Co. BI:

Name:	UNIVERSITY CIRCLE
Address:	1900 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0063050
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0085972
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Active, billable
Program Category:	BUSINESS PLAN PROGRAM

K38 **RAVENSWOOD COMMUNITY** **San Mateo Co. BI** **S123180386**
NE **2100 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.177 mi.
934 ft. **Site 1 of 2 in cluster K**

Relative: **Lower**
Actual: **23 ft.**

San Mateo Co. BI:

Name:	RAVENSWOOD COMMUNITY
Address:	2100 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0014587
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0041654
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

K39 **THE SOBRATO ORGANIZATION** **San Mateo Co. BI** **S124430740**
NE **2100 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.177 mi.
934 ft. **Site 2 of 2 in cluster K**

Relative: **Lower**
Actual: **23 ft.**

San Mateo Co. BI:

Name:	THE SOBRATO ORGANIZATION
Address:	2100 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0066310
Prog Element Code:	STORES MV FUELS OR WASTE ONLY
Record Id:	PR0089435
Description:	STORES MV FUELS OR WASTE ONLY
Facility Status:	Active, billable
Program Category:	BUSINESS PLAN PROGRAM

40
NNE
1/8-1/4
0.178 mi.
939 ft.

DREW HEALTH FOUNDATION
2111 UNIVERSITY
EAST PALO ALTO, CA 94303

San Mateo Co. BI

S123180568
N/A

Relative:
Lower

Actual:
22 ft.

San Mateo Co. BI:

Name:	DREW HEALTH FOUNDATION
Address:	2111 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0022306
Prog Element Code:	SQG (1-199 LBS/MO) HEALTH FACILITY/SNF
Record Id:	PR0023887
Description:	SQG HEALTH FACILITY/SNF (1-199 LB/MO)
Facility Status:	Inactive, non-billable
Program Category:	MEDICAL WASTE

I41
SSE
1/8-1/4
0.182 mi.
963 ft.

UNIVERSITY CIRCLE REDEVELOPMENT
1973 UNIVERSITY
EAST PALO ALTO, CA 94305
Site 12 of 12 in cluster I

San Mateo Co. BI

S113757451
N/A

Relative:
Higher

Actual:
33 ft.

San Mateo Co. BI:

Name:	UNIVERSITY CIRCLE REDEVELOPMENT
Address:	1973 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94305
Region:	SAN MATEO
Facility ID:	FA0026132
Prog Element Code:	UNDERGROUND TANK - GENERAL
Record Id:	PR0037694
Description:	UNDERGROUND TANK - GENERAL
Facility Status:	Inactive, non-billable
Program Category:	UNDERGROUND TANK PROGRAM

L42
North
1/8-1/4
0.186 mi.
980 ft.

RAVENSWOOD CITY SCHOOL DISTRICT
2160 EUCLID AVE
EAST PALO ALTO, CA 94303
Site 1 of 4 in cluster L

CERS HAZ WASTE
CERS TANKS
EMI
HAZNET
CERS

S113163622
N/A

Relative:
Lower

Actual:
22 ft.

CERS HAZ WASTE:

Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	400418
CERS ID:	10064314
CERS Description:	Hazardous Waste Generator

CERS TANKS:

Name:	RAVENSWOOD CITY SCHOOL DIST
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	400418
CERS ID:	10064314
CERS Description:	Underground Storage Tank

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

EMI:

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 94303
Year:	2017
County Code:	41
Air Basin:	SF
Facility ID:	100157
Air District Name:	BA
SIC Code:	5411
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00154746
Reactive Organic Gases Tons/Yr:	0.00154746
Carbon Monoxide Emissions Tons/Yr:	Not reported
NOX - Oxides of Nitrogen Tons/Yr:	Not reported
SOX - Oxides of Sulphur Tons/Yr:	Not reported
Particulate Matter Tons/Yr:	Not reported
Part. Matter 10 Micrometers and Smllr Tons/Yr:	Not reported

HAZNET:

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2015
GEPAID:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Mailing City,St,Zip:	PALO ALTO, CA 943031703
Gen County:	San Mateo
TSD EPA ID:	CAD059494310
TSD County:	Santa Clara
Tons:	2.1
CA Waste Code:	331-Off-specification, aged or surplus organics
Method:	H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo

Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2013
GEPAID:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Mailing City,St,Zip:	PALO ALTO, CA 943031703
Gen County:	San Mateo
TSD EPA ID:	CAD980887418
TSD County:	Alameda
Tons:	6.19245
CA Waste Code:	223-Unspecified oil-containing waste

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Method:	H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo
Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2012
GEPAID:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Mailing City,St,Zip:	PALO ALTO, CA 943031703
Gen County:	San Mateo
TSD EPA ID:	CAD980887418
TSD County:	Alameda
Tons:	2.18255
CA Waste Code:	223-Unspecified oil-containing waste
Method:	H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo
Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2011
GEPAID:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Mailing City,St,Zip:	PALO ALTO, CA 943031703
Gen County:	San Mateo
TSD EPA ID:	CAD980887418
TSD County:	Alameda
Tons:	0.05
CA Waste Code:	223-Unspecified oil-containing waste
Method:	H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	San Mateo
Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Address:	2160 EUCLID AVE
City,State,Zip:	EAST PALO ALTO, CA 943031703
Year:	2009
GEPAID:	CAL912605650
Contact:	JOSE LUIS ALCARAZ/MEGAN CURTIS
Telephone:	6503292800
Mailing Name:	Not reported
Mailing Address:	2160 EUCLID AVE
Mailing City,St,Zip:	PALO ALTO, CA 943031703
Gen County:	San Mateo
TSD EPA ID:	CAD980887418
TSD County:	Alameda
Tons:	0.05
CA Waste Code:	223-Unspecified oil-containing waste

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Method: H141-Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: San Mateo

Click this hyperlink while viewing on your computer to access
20 additional CA_HAZNET: record(s) in the EDR Site Report.

CERS:
Name: RAVENSWOOD CITY SCHOOL DIST
Address: 2160 EUCLID AVE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 400418
CERS ID: 10064314
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 10/28/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 10/28/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2015
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.
Violation Notes: Returned to compliance on 12/07/2015. There are no records of your employees being trained. All employees handling hazardous waste must be trained. You must train your waste handlers within 30 days and provide verification to the County. Second year in a row for this violation.
Violation Division: San Mateo County Environmental Health
Violation Program: HW

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.
Violation Notes: Returned to compliance on 12/07/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: 23 CCR 16 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2711(a)(8)
Violation Description: Failure to submit, obtain approval, or maintain a complete/accurate plot plan.
Violation Notes: Returned to compliance on 01/14/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: 22 CCR 12 66262.34(d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(d)
Violation Description: Failure to dispose of hazardous waste within 180 days (or 270 if waste is transported over 200 miles) for the generator who generates less than 1000 kilogram per month, but more than 100 kilograms per month.
Violation Notes: Returned to compliance on 10/28/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-31-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 11/09/2017. Observed in hazardous waste storage shed, one open rolling container with used oil, and 1 drum of used oil filters and 1 drum of contaminated solids that need accumulation start dates. Please empty the open rolling container into a drum and label properly. Label the used oil filter drum with a label provided by the inspector for used oil filters. Label the other drum with the standard hazardous waste label. Please provide photo verification to inspector within 30 days.

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: 23 CCR 16 2715(a) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(a)
Violation Description: Failure to submit statement of UST compliance and/or Designated Operator certification.
Violation Notes: Returned to compliance on 01/14/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: 22 CCR 15 66265.174 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes: Returned to compliance on 10/28/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014
Citation: HSC 6.7 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25286
Violation Description: Failure to obtain and maintain a valid Board of Equalization account number.
Violation Notes: Returned to compliance on 01/14/2015.
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2015
Citation: 23 CCR 16 2715 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715
Violation Description: Failure of service technician, installer, designated operator, and/or employee to obtain and maintain proper manufacturer certification.
Violation Notes: Returned to compliance on 12/07/2015. Your Financial Certification has expired. You must have a current certification and submit this to the County. Submit a new Financial Certification to the County electronically within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Violation Date: 10-28-2014

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Citation:	23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description:	Failure to submit, obtain approval, or maintain a complete/accurate response plan.
Violation Notes:	Returned to compliance on 01/14/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2015
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description:	Failure to obtain and/or maintain an Active EPA ID.
Violation Notes:	Returned to compliance on 12/07/2015. Your EPA number is inactive. You must have an active EPA number. Reactivate your number immediately and provide verification to the County within 30 days. (DTSC form 1358 provided)
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-31-2017
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 02/05/2018. Observed batteries on ground near other debris from a district building. This debris should be sorted before it is dumped at the Ravenswood facility to avoid crushing any hazardous materials that may be present in the load. Please implement a process to ensure this occurs and send a copy of the procedure to the inspector within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	11-02-2015
Citation:	HSC 6.7 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25292(e)
Violation Description:	Failure to maintain secondary containment, as evidenced by failure of secondary containment testing.
Violation Notes:	Returned to compliance on 01/11/2016. UDC #1 failed SB989. Client notified 11/2/15
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2015
Citation:	22 CCR 23 66273.36 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.36

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Violation Description:	Failure of the universal waste handler to initially train and provide annually, thereafter, all personnel who manage or who supervise those who manage universal wastes and to maintain a written record by date indicating the names of personnel who received the information. The universal waste handler shall maintain these records for at least three years from the date the person last managed any universal waste at the facility. This training shall include: 1) The types and hazards associated with the universal waste that personnel may manage at the facility; 2) The proper disposition of universal wastes managed at the facility; 3) The proper procedures for responding to releases of universal wastes including the position titles and the means of contacting those personnel at the facility who are designated to respond to reports of releases and/or to respond to questions received from other personnel at the facility; and 4) The applicable requirements of universal waste regarding labeling, collecting, handling, consolidating, and shipping universal wastes at the facility, including, but not limited to, the prohibition on the disposal of universal wastes, and for personnel involved in shipping universal wastes who are ?hazmat employees?.
Violation Notes:	Returned to compliance on 12/07/2015. There are no records of your employees being trained. All employees handling universal waste must be trained. You must train your universal waste handlers within 30 days and provide verification to the County.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2014
Citation:	HSC 6.95 25508(d) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(d)
Violation Description:	Failure to complete and/or electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes:	Returned to compliance on 03/28/2015. In Portal
Violation Division:	San Mateo County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2014
Citation:	HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Description:	Failure to submit an complete and accurate application for a permit to operate an underground storage tank, or for renewal of the permit.
Violation Notes:	Returned to compliance on 01/14/2015.
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-31-2017
Citation:	22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Violation Description:	Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.
Violation Notes:	Returned to compliance on 10/31/2017. Facility EPAID# deactivated due to staff changes. Please re-activate the number and sign up for electronic verification questionnaire. Copy your inspector on this request. Contact your inspector with any questions.
Violation Division:	San Mateo County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-26-2016
Citation:	23 CCR 16 2632(d)(1)(C), 2641(h), 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(d)(1)(C), 2641(h), 2711(a)(8)
Violation Description:	Failure to submit or update a plot plan.
Violation Notes:	Returned to compliance on 01/24/2018. Plot plan is missing information and mislabeled. Please revise and resubmit within 30 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-26-2016
Citation:	23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Description:	Failure to comply with one or more of the following: Failure to install or maintain a liquid-tight spill bucket. Have a minimum capacity of five gallons. Have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container. Be resistant to galvanic corrosion.
Violation Notes:	Returned to compliance on 11/09/2016. Diesel spill bucket drain valve failed. Please replace drain valve within 14 days.
Violation Division:	San Mateo County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	400418
Site Name:	RAVENSWOOD CITY SCHOOL DIST
Violation Date:	10-28-2015
Citation:	22 CCR 23 66273.34 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.34
Violation Description:	Failure to properly label the following categories of universal waste as: 1) Each batteries or the container in which the batteries are contained as "Universal Waste-Battery(ies)". 2) Each mercury-containing equipment or the container in which the mercury-containing equipment is contained as "Universal Waste -Mercury-Containing Equipment". 3) Each Florescent lamp or the container or package in which the lamps are contained as "Universal Waste-Lamp(s)". 4) Each electronic devices or the container or pallet in or on which the electronic devices are contained as "Universal Waste-Electronic Device(s)". 5) Each CRTs or the container or pallet in or on which the CRTs are contained as "Universal Waste-CRT(s)". 6) A container of CRT glass shall be labeled or marked clearly with the

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

following phrase: "Universal Waste-CRT glass". 7) In lieu of labeling individual electronic devices, CRTs, and/or containers of CRT glass pursuant to subsections d) through f) of this section, a universal waste handler may combine, package, and accumulate those universal wastes in appropriate containers or within a designated area demarcated by boundaries that are clearly labeled with the applicable portion(s) of the following phrase: "Universal Waste-Electronic Device(s)/Universal Waste - CRT(s)/Universal Waste-CRT Glass".

Violation Notes: Returned to compliance on 12/07/2015. Your waste lamp boxes are not labeled properly or at all. You must label all waste fluorescent lamp boxes. Do so immediately and provide verification to the County within 30 days.
Violation Division: San Mateo County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 01-14-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: UST forms in portal
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-18-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-27-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-05-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-26-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-26-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Last SB989 testing 10-27-15. Installation date 9-1-98. Single 2 x 2000-gallon compartment DW tank. Floats & chains in UDCs required roughly 12 ounces to trigger. Test water flowed away from cup. Conventional suction and whether DW not confirmed for diesel. Inspector will review situation with specialist and report back in 14 days.
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-28-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-28-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HW
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-28-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	UST
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-28-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	San Mateo County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-28-2015

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-28-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-30-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-30-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-08-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: amc results
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-19-2015
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-31-2013
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-31-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-31-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Installation date 9-1-1998.
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-31-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-31-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-31-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-31-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: San Mateo County Environmental Health
Eval Program: HW
Eval Source: CERS

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Eval General Type: Other/Unknown
Eval Date: 11-02-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: SB989 and AMC report review and documentation
Eval Division: San Mateo County Environmental Health
Eval Program: UST
Eval Source: CERS

Enforcement Action:
Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Site Address: 2160 EUCLID AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 08-23-2017
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: 1/29/18: facility violations have yet to be resolved 4/23/18:Facility violations closed in dispatch center.
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Site Address: 2160 EUCLID AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 10-28-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Site Address: 2160 EUCLID AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 10-28-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 400418
Site Name: RAVENSWOOD CITY SCHOOL DIST
Site Address: 2160 EUCLID AVE
Site City: EAST PALO ALTO
Site Zip: 94303
Enf Action Date: 10-28-2014
Enf Action Type: Notice of Violation (Unified Program)

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: San Mateo County Environmental Health
Enf Action Program: UST
Enf Action Source: CERS

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Delma Camacho
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 2120 EUCLID
Affiliation City: EAST PALO ALTO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94303
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: RAVENSWOOD CITY SCHOOL DIST
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (650) 329-2800

Affiliation Type Desc: Parent Corporation
Entity Name: RAVENSWOOD CITY SCHOOL DIST
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Tank Operator
Entity Name: Carl Taft
Entity Title: Not reported
Affiliation Address: 785 yuba drive
Affiliation City: mountain view
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94041
Affiliation Phone: (650) 987-2253

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Affiliation Type Desc:	UST Tank Owner
Entity Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Entity Title:	Not reported
Affiliation Address:	2160 EUCLID AVE
Affiliation City:	EAST PALO ALTO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94303-
Affiliation Phone:	(650) 329-2800

Affiliation Type Desc:	Identification Signer
Entity Name:	Delma Camacho
Entity Title:	Transportation Supervisor
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	RAVENSWOOD CITY SCHOOL DIST
Entity Title:	Not reported
Affiliation Address:	2120 EUCLID
Affiliation City:	EAST PALO ALTO
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94303
Affiliation Phone:	(650) 838-3569

Affiliation Type Desc:	UST Permit Applicant
Entity Name:	Mahendra Chahal
Entity Title:	Director of MOT
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(650) 329-2800

Affiliation Type Desc:	CUPA District
Entity Name:	San Mateo County Environmental Health
Entity Title:	Not reported
Affiliation Address:	2000 Alameda de las Pulgas, Suite 100
Affiliation City:	San Mateo
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94403
Affiliation Phone:	(650) 372-6200

Affiliation Type Desc:	Environmental Contact
Entity Name:	Delma Camacho
Entity Title:	Not reported
Affiliation Address:	2120 EUCLID
Affiliation City:	EAST PALO ALTO
Affiliation State:	CA
Affiliation Country:	Not reported

RAVENSWOOD CITY SCHOOL DISTRICT (Continued) **S113163622**

Affiliation Zip:	94303
Affiliation Phone:	Not reported
Affiliation Type Desc:	UST Property Owner Name
Entity Name:	RAVENSWOOD CITY SCHOOL DISTRICT
Entity Title:	Not reported
Affiliation Address:	2160 EUCLID AVE
Affiliation City:	EAST PALO ALTO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94303-
Affiliation Phone:	(650) 329-2800

L43 **RAVENSWOOD CITY SCHOOL DIST.** **SWEEPS UST** **S103642168**
North **2160 EUCLID AVE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.186 mi.
980 ft. **Site 2 of 4 in cluster L**

Relative: SWEEPS UST:
Lower

Name:	RAVENSWOOD CITY SCHOOL DIST.
Address:	2160 EUCLID AVE
City:	EAST PALO ALTO
Status:	Not reported
Comp Number:	890021
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890021-000001
Tank Status:	Not reported
Capacity:	1000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	DIESEL
Number Of Tanks:	2

Actual:
22 ft.

Name:	RAVENSWOOD CITY SCHOOL DIST.
Address:	2160 EUCLID AVE
City:	EAST PALO ALTO
Status:	Not reported
Comp Number:	890021
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	41-000-890021-000002
Tank Status:	Not reported
Capacity:	2000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT

RAVENSWOOD CITY SCHOOL DIST. (Continued) **S103642168**

Content: REG UNLEADED
Number Of Tanks: Not reported

L44 **RAVENSWOOD CITY SCHOOL DIST** **UST** **U004266210**
North **2160 EUCLID AVE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.186 mi.
980 ft. **Site 3 of 4 in cluster L**

Relative: UST:
Lower
Name: RAVENSWOOD CITY SCHOOL DIST
Actual: Address: 2160 EUCLID AVE
22 ft. City,State,Zip: EAST PALO ALTO, CA 94303
Facility ID: Not reported
Permitting Agency: San Mateo County Environmental Health
Latitude: 37.463787
Longitude: -122.14328

L45 **RAVENSWOOD CITY SCHOOL DIST** **San Mateo Co. BI** **S113755505**
North **2160 EUCLID** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.186 mi.
980 ft. **Site 4 of 4 in cluster L**

Relative: San Mateo Co. BI:
Lower
Name: RAVENSWOOD CITY SCHOOL DIST
Actual: Address: 2160 EUCLID
22 ft. City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0009839
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040368
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

Name: RAVENSWOOD CITY SCHOOL DIST
Address: 2160 EUCLID
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0009839
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0022986
Description: UNDERGROUND TANK - GENERAL
Facility Status: Active, billable
Program Category: UNDERGROUND TANK PROGRAM

Name: RAVENSWOOD CITY SCHOOL DIST
Address: 2160 EUCLID
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0009839
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0028245
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Active, billable

RAVENSWOOD CITY SCHOOL DIST (Continued) **S113755505**

Program Category: BUSINESS PLAN PROGRAM

Name: RAVENSWOOD CITY SCHOOL DIST
Address: 2160 EUCLID
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0009839
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0028246
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Active, billable
Program Category: HAZARDOUS WASTE PROGRAM

M46 **UNIVERSITY CIRCLE** **San Mateo Co. BI** **S113757480**
SSE **1941 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.196 mi.
1033 ft. **Site 1 of 3 in cluster M**

Relative: **Higher**
Actual: **32 ft.**

San Mateo Co. BI:
Name: UNIVERSITY CIRCLE
Address: 1941 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0026323
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0038006
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable
Program Category: UNDERGROUND TANK PROGRAM

N47 **A1 AUTOMOTIVE REPAIR SHOP** **San Mateo Co. BI** **S113755992**
ENE **648 DONOHOE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.204 mi.
1076 ft. **Site 1 of 2 in cluster N**

Relative: **Lower**
Actual: **23 ft.**

San Mateo Co. BI:
Name: A1 AUTOMOTIVE REPAIR SHOP
Address: 648 DONOHOE
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0014217
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0040378
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

Name: A1 AUTOMOTIVE REPAIR SHOP
Address: 648 DONOHOE
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0014217
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0028274

A1 AUTOMOTIVE REPAIR SHOP (Continued) **S113755992**

Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable
Program Category: UNDERGROUND TANK PROGRAM

Name: A1 AUTOMOTIVE REPAIR SHOP
Address: 648 DONOHOE
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0014217
Prog Element Code: GENERATES and RECYCLES WASTE OIL/SOLVENT
Record Id: PR0024591
Description: GENERATES & RECYCLES WASTE OIL/SOLVENT
Facility Status: Inactive, non-billable
Program Category: HAZARDOUS WASTE PROGRAM

Name: A1 AUTOMOTIVE REPAIR SHOP
Address: 648 DONOHOE
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0014217
Prog Element Code: STORES MV FUELS OR WASTE ONLY
Record Id: PR0024592
Description: STORES MV FUELS OR WASTE ONLY
Facility Status: Inactive, non-billable
Program Category: BUSINESS PLAN PROGRAM

48
WNW
1/8-1/4
0.211 mi.
1115 ft.

ARDMORE APARTMENTS- UNIT #36 **RCRA NonGen / NLR** **1024744471**
315 E OKEEFE STREET #36 **CAC002963848**
EAST PALO ALTO, CA 94303

Relative:
Higher

Actual:
31 ft.

RCRA NonGen / NLR:
Date form received by agency: 05/29/2018
Facility name: ARDMORE APARTMENTS- UNIT #36
Facility address: 315 E OKEEFE STREET #36
EAST PALO ALTO, CA 94303
EPA ID: CAC002963848
Mailing address: 3028 THOMPSON AVENUE
ALAMEDA, CA 94501
Contact: DOMINIC PASSANISI
Contact address: 3028 THOMPSON AVENUE
ALAMEDA, CA 94501
Contact country: Not reported
Contact telephone: 510-865-0462
Contact email: DANELLBAGBY@ALLIANCE-ENVIRO.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: DOMINIC PASSANISI
Owner/operator address: 3028 THOMPSON AVENUE
ALAMEDA, CA 94501
Owner/operator country: Not reported
Owner/operator telephone: 510-865-0462
Owner/operator email: Not reported

ARDMORE APARTMENTS- UNIT #36 (Continued) **1024744471**

Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	DOMINIC PASSANISI
Owner/operator address:	3028 THOMPSON AVENUE ALAMEDA, CA 94501
Owner/operator country:	Not reported
Owner/operator telephone:	510-865-0462
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

N49 **COUNTRY TIME MARKET** **San Mateo Co. BI** **S123179944**
ENE **635 DONOHOE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.213 mi.
1122 ft. **Site 2 of 2 in cluster N**

Relative:
Lower

Actual:
22 ft.

San Mateo Co. BI:

Name:	COUNTRY TIME MARKET
Address:	635 DONOHOE
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0004195
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0041635
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

M50 **UNOCAL** **HIST CORTESE** **S104660370**
SSE **1901 UNIVERSITY** **N/A**
1/8-1/4 **PALO ALTO, CA**
0.214 mi.
1128 ft. **Site 2 of 3 in cluster M**

Relative: **Lower**

Actual: **26 ft.**

HIST CORTESE:

edr_fname:	UNOCAL
edr_fadd1:	1901 UNIVERSITY
City,State,Zip:	PALO ALTO, CA
Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-1578

M51 **UNOCAL #2862** **LUST** **1000167099**
SSE **1901 UNIVERSITY** **SWEEPS UST** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303** **HIST UST**
0.214 mi. **San Mateo Co. BI**
1128 ft. **Site 3 of 3 in cluster M** **HIST CORTESE**
CERS

Relative: **Lower**

Actual: **26 ft.**

LUST:

Name:	UNOCAL #2862
Address:	1901 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608100576
Global Id:	T0608100576
Latitude:	37.4580296
Longitude:	-122.1418089
Status:	Completed - Case Closed
Status Date:	08/31/1993
Case Worker:	DGM
RB Case Number:	41-0604
Local Agency:	SAN MATEO COUNTY LOP
File Location:	Local Agency Warehouse
Local Case Number:	890005
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0608100576
Contact Type:	Local Agency Caseworker
Contact Name:	DENO MILANO
Organization Name:	SAN MATEO COUNTY LOP
Address:	2000 ALAMEDA DE LAS PULGAS SUITE 100
City:	SAN MATEO
Email:	dmilano@smcgov.org
Phone Number:	6503726292

Global Id:	T0608100576
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported

UNOCAL #2862 (Continued) **1000167099**

Phone Number: Not reported

LUST:
Global Id: T0608100576
Action Type: ENFORCEMENT
Date: 02/05/1990
Action: Notice of Responsibility - #1

Global Id: T0608100576
Action Type: Other
Date: 02/02/1990
Action: Leak Reported

LUST:
Global Id: T0608100576
Status: Open - Case Begin Date
Status Date: 02/02/1990

Global Id: T0608100576
Status: Completed - Case Closed
Status Date: 08/31/1993

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 890005
How Discovered: OM
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SAN MATEO CO. LUST:
Name: UNOCAL #2862
Address: 1901 MANHATTAN AVE
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 890005
Facility Status: 9- Case Closed
Global ID: T0608100576
APN Number: 063473200
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

SWEEPS UST:
Name: UNION OIL SERVICE STATION 2862
Address: 1901 UNIVERSITY AVE

UNOCAL #2862 (Continued) **1000167099**

City: EAST PALO ALTO
Status: Not reported
Comp Number: 890010
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 41-000-890010-000004
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 3

Name: UNION OIL SERVICE STATION 2862
Address: 1901 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Not reported
Comp Number: 890010
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 41-000-890010-000005
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: UNION OIL SERVICE STATION 2862
Address: 1901 UNIVERSITY AVE
City: EAST PALO ALTO
Status: Not reported
Comp Number: 890010
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 41-000-890010-000006
Tank Status: Not reported
Capacity: 280
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

UNOCAL #2862 (Continued) **1000167099**

Name:	UNION OIL SERVICE STATION 2862
Address:	1901 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Active
Comp Number:	890010
Number:	9
Board Of Equalization:	Not reported
Referral Date:	11-08-93
Action Date:	11-08-93
Created Date:	10-13-88
Owner Tank Id:	2862-RU-1
SWRCB Tank Id:	41-000-890010-000001
Tank Status:	A
Capacity:	10000
Active Date:	07-06-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	3

Name:	UNION OIL SERVICE STATION 2862
Address:	1901 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Active
Comp Number:	890010
Number:	9
Board Of Equalization:	Not reported
Referral Date:	11-08-93
Action Date:	11-08-93
Created Date:	10-13-88
Owner Tank Id:	2862-RU-1
SWRCB Tank Id:	41-000-890010-000002
Tank Status:	A
Capacity:	10000
Active Date:	07-06-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Name:	UNION OIL SERVICE STATION 2862
Address:	1901 UNIVERSITY AVE
City:	EAST PALO ALTO
Status:	Active
Comp Number:	890010
Number:	9
Board Of Equalization:	Not reported
Referral Date:	11-08-93
Action Date:	11-08-93
Created Date:	10-13-88
Owner Tank Id:	2862-WO-1
SWRCB Tank Id:	41-000-890010-000003
Tank Status:	A
Capacity:	280
Active Date:	07-06-92
Tank Use:	OIL
STG:	W

UNOCAL #2862 (Continued) **1000167099**

Content: WASTE OIL
Number Of Tanks: Not reported

HIST UST:
Name: UNION OIL SS 2862
Address: 1901 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA 94303
File Number: 0002C3F4
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002C3F4.pdf
Region: STATE
Facility ID: 00000031714
Facility Type: Gas Station
Other Type: Not reported
Contact Name: A.O.T. INC.
Telephone: 4153221659
Owner Name: UNION OIL CO.
Owner Address: 1 CALIFORNIA ST. SUITE 2700
Owner City,St,Zip: SAN FRANCISCO, CA 94111
Total Tanks: 0003

Tank Num: 001
Container Num: 2862-1-1
Year Installed: 1965
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 001
Container Num: 2862-1-1
Year Installed: 1965
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2862-2-1
Year Installed: 1965
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2862-2-1
Year Installed: 1965
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 003

UNOCAL #2862 (Continued) **1000167099**

Container Num: 2862-4-1
Year Installed: Not reported
Tank Capacity: 00000280
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 2862-4-1
Year Installed: Not reported
Tank Capacity: 00000280
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 1
Year Installed: 1965
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 6
Leak Detection: Visual

Tank Num: 004
Container Num: 1
Year Installed: 1965
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 6
Leak Detection: Visual

Click here for Geo Tracker PDF:

San Mateo Co. BI:
Name: UNOCAL SERVICE STATION 2862
Address: 1901 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0018326
Prog Element Code: UNDERGROUND TANK - GENERAL
Record Id: PR0025694
Description: UNDERGROUND TANK - GENERAL
Facility Status: Inactive, non-billable
Program Category: UNDERGROUND TANK PROGRAM

HIST CORTESE:
edr_fname: UNOCAL
edr_fadd1: 1901 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA
Region: CORTESE
Facility County Code: 41
Reg By: LTNKA

UNOCAL #2862 (Continued) **1000167099**

Reg Id: 41-0604

CERS:
Name: UNOCAL #2862
Address: 1901 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 205219
CERS ID: T0608100576
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: DENO MILANO - SAN MATEO COUNTY LOP
Entity Title: Not reported
Affiliation Address: 2000 ALAMEDA DE LAS PULGAS SUITE 100
Affiliation City: SAN MATEO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 6503726292

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52 **B & M** **San Mateo Co. BI** **S123181563**
NE **2118 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.217 mi.
1145 ft.

Relative: **Lower**
Actual: **21 ft.**

San Mateo Co. BI:
Name: B & M
Address: 2118 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0027404
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0049954
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

53 **EL GALOPE TAQUERIA** **San Mateo Co. BI** **S123179979**
ENE **641 DONOHOE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.226 mi.
1191 ft.

Relative:
Lower

Actual:
21 ft.

San Mateo Co. BI:

Name:	EL GALOPE TAQUERIA
Address:	641 DONOHOE
City,State,Zip:	EAST PALO ALTO, CA 94303
Region:	SAN MATEO
Facility ID:	FA0004459
Prog Element Code:	STORMWATER ANNUAL INSPECTION FEE
Record Id:	PR0049956
Description:	STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status:	Inactive, non-billable
Program Category:	STORMWATER

O54 **JONES MORTUARY** **LUST** **S105427667**
ENE **660 DONOHOE** **CERS** **N/A**
1/8-1/4 **E PALO ALTO, CA 94303**
0.238 mi.
1256 ft. **Site 1 of 2 in cluster O**

Relative:
Lower

Actual:
22 ft.

LUST:

Name:	JONES MORTUARY
Address:	660 DONOHOE
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608152821
Global Id:	T0608152821
Latitude:	37.462636
Longitude:	-122.140441
Status:	Completed - Case Closed
Status Date:	09/13/2003
Case Worker:	Not reported
RB Case Number:	Not reported
Local Agency:	Not reported
File Location:	Local Agency Warehouse
Local Case Number:	890020
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0608152821
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0608152821
Action Type:	Other
Date:	01/30/2002
Action:	Leak Discovery

JONES MORTUARY (Continued) **S105427667**

Global Id: T0608152821
Action Type: ENFORCEMENT
Date: 04/01/2002
Action: Notice of Responsibility - #1

Global Id: T0608152821
Action Type: ENFORCEMENT
Date: 09/13/2003
Action: Closure/No Further Action Letter - #2

Global Id: T0608152821
Action Type: ENFORCEMENT
Date: 08/11/2003
Action: Staff Letter - #20030811

Global Id: T0608152821
Action Type: ENFORCEMENT
Date: 08/29/2002
Action: Staff Letter - #20020829

Global Id: T0608152821
Action Type: Other
Date: 01/30/2002
Action: Leak Reported

Global Id: T0608152821
Action Type: RESPONSE
Date: 06/29/2003
Action: Electronic Reporting Submittal Due

Global Id: T0608152821
Action Type: RESPONSE
Date: 11/11/2003
Action: Request for Closure

LUST:
Global Id: T0608152821
Status: Open - Case Begin Date
Status Date: 01/30/2002

Global Id: T0608152821
Status: Open - Site Assessment
Status Date: 01/30/2002

Global Id: T0608152821
Status: Open - Verification Monitoring
Status Date: 08/29/2002

Global Id: T0608152821
Status: Completed - Case Closed
Status Date: 09/13/2003

LUST REG 2:
Region: 2
Facility Id: Not reported

JONES MORTUARY (Continued) **S105427667**

Facility Status: Case Closed
Case Number: 890020
How Discovered: OM
Leak Cause: Unknown
Leak Source: Unknown
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 1/1/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: 8/29/2002

SAN MATEO CO. LUST:
Name: JONES MORTUARY
Address: 660 DONOHOE ST
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 890020
Facility Status: 9- Case Closed
Global ID: T0608152821
APN Number: 063312440
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

CERS:
Name: JONES MORTUARY
Address: 660 DONOHOE
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 209197
CERS ID: T0608152821
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

O55 **JONES MORTUARY INC** **San Mateo Co. BI** **S123182466**
ENE **660 DONOHOE** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.238 mi.
1256 ft. **Site 2 of 2 in cluster O**

Relative: San Mateo Co. BI:
Lower Name: JONES MORTUARY INC
Actual: Address: 660 DONOHOE
22 ft. City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO

JONES MORTUARY INC (Continued) **S123182466**

Facility ID: FA0044936
Prog Element Code: SML QUANTITY GENERATOR(1-199lbs/Mo) OFF-SITE
Record Id: PR0057174
Description: SQG OFF-SITE TREATMENT (1-199 LB/MO)
Facility Status: Active, billable
Program Category: MEDICAL WASTE

P56 **MI PUEBLITO** **San Mateo Co. BI** **S123183584**
NE **2150 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.244 mi.
1289 ft. **Site 1 of 3 in cluster P**

Relative: **Lower**
Actual: **20 ft.**

San Mateo Co. BI:
Name: MI PUEBLITO
Address: 2150 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0054822
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0075604
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

P57 **EPA FISH CHICKEN** **San Mateo Co. BI** **S123182730**
NE **2150 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94043**
0.244 mi.
1289 ft. **Site 2 of 3 in cluster P**

Relative: **Lower**
Actual: **20 ft.**

San Mateo Co. BI:
Name: EPA FISH CHICKEN
Address: 2150 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94043
Region: SAN MATEO
Facility ID: FA0046997
Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0064076
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

P58 **MARIAS TAQUERIA** **San Mateo Co. BI** **S123179256**
NE **2150 UNIVERSITY** **N/A**
1/8-1/4 **EAST PALO ALTO, CA 94303**
0.244 mi.
1289 ft. **Site 3 of 3 in cluster P**

Relative: **Lower**
Actual: **20 ft.**

San Mateo Co. BI:
Name: MARIAS TAQUERIA
Address: 2150 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: SAN MATEO
Facility ID: FA0000736

MARIAS TAQUERIA (Continued) **S123179256**

Prog Element Code: STORMWATER ANNUAL INSPECTION FEE
Record Id: PR0041633
Description: STORMWATER ANNUAL FEE - INSP FREQ EVERY 2 YRS
Facility Status: Inactive, non-billable
Program Category: STORMWATER

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59 **LAUREL UPPER SCHOOL CAMPUS** **ENVIROSTOR** **S115779977**
WSW **275 ELLIOT DRIVE** **SCH** **N/A**
1/4-1/2 **MENLO PARK, CA 94027** **HAZNET**
0.296 mi. **NPDES**
1561 ft. **CIWQS**

Relative: **Higher**

Actual: **39 ft.**

ENVIROSTOR:
Name: O'CONNOR SCHOOL SITE
Address: 275 ELLIOTT DRIVE
City,State,Zip: MENLO PARK, CA 94025
Facility ID: 60001979
Status: Active
Status Date: 02/21/2014
Site Code: 204261
Site Type: School Cleanup
Site Type Detailed: School
Acres: 6
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Mellan Songco
Supervisor: Jose Salcedo
Division Branch: Northern California Schools & Santa Susana
Assembly: 24
Senate: 13
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 37.45961
Longitude: -122.1484
APN: 063-430-310-1, 063430310
Past Use: AGRICULTURAL - ROW CROPS, SCHOOL - ELEMENTARY
Potential COC: Under Investigation Arsenic Chlordane DDD DDE DDT Lead Polychlorinated biphenyls (PCBs Toxaphene Dieldrin
Confirmed COC: NONE SPECIFIED
Potential Description: SOIL
Alias Name: Laurel School Upper Campus
Alias Type: Alternate Name
Alias Name: 063-430-310-1
Alias Type: APN
Alias Name: 063430310
Alias Type: APN
Alias Name: 204261
Alias Type: Project Code (Site Code)
Alias Name: 60001979
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Completed Date: 03/06/2014
Comments: Scoping meeting at Terraphase Office in Oakland at noon, then site visit with Terraphase and District at 2:00 pm.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 03/25/2014
Comments: EOA execution letter completed and sent to District with fully executed EOA on 3/25/2014.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 06/20/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 05/21/2015
Comments: On May 21, 2015, the District and DTSC entered into an O&M Agreement.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/24/2014
Comments: Phase I Report for Background, O'Connor School Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/24/2014
Comments: Geotechnical Report for Background, O'Connor School Site

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/11/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/21/2015
Comments: On May 21, 2015, DTSC approved the PEA Report and the SFPD 4.15 with a further action determination. The District entered into an O&M Agreement with DTSC on 5/21/2015 for the NOA in the AB material underneath the parking area/building.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/29/2014
Comments: On May 29, 2014, DTSC received the PEA Workplan Addendum and approved it for implementation on the same day.

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/17/2015
Comments: On July 16, 2015, DTSC conducted a site visit during the District's construction project where there's NOA intrusive work. During the site visit, DTSC observed the dust monitoring, dust mitigation and posting of the site that NOA intrusive work activities will be happening at the site per the O&M Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 04/04/2018
Comments: On April 4, 2018, DTSC approved the revised Radon Sampling Workplan for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/28/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 12/18/2018
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2023
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Plan
Schedule Due Date: 01/11/2019
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 01/14/2019
Schedule Revised Date: Not reported

SCH:

Name: O'CONNOR SCHOOL SITE
Address: 275 ELLIOTT DRIVE
City,State,Zip: MENLO PARK, CA 94025
Facility ID: 60001979
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 6
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Mellan Songco
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Site Code:	204261
Assembly:	24
Senate:	13
Special Program Status:	Not reported
Status:	Active
Status Date:	02/21/2014
Restricted Use:	NO
Funding:	School District
Latitude:	37.45961
Longitude:	-122.1484
APN:	063-430-310-1, 063430310
Past Use:	AGRICULTURAL - ROW CROPS, SCHOOL - ELEMENTARY
Potential COC:	Under Investigation, Arsenic, Chlordane, DDD, DDE, DDT, Lead, Polychlorinated biphenyls (PCBs, Toxaphene, Dieldrin
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL
Alias Name:	Laurel School Upper Campus
Alias Type:	Alternate Name
Alias Name:	063-430-310-1
Alias Type:	APN
Alias Name:	063430310
Alias Type:	APN
Alias Name:	204261
Alias Type:	Project Code (Site Code)
Alias Name:	60001979
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	03/06/2014
Comments:	Scoping meeting at Terraphase Office in Oakland at noon, then site visit with Terraphase and District at 2:00 pm.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	03/25/2014
Comments:	EOA execution letter completed and sent to District with fully executed EOA on 3/25/2014.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Amendment - Order/Agreement
Completed Date:	06/20/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operation & Maintenance Order/Agreement
Completed Date:	05/21/2015
Comments:	On May 21, 2015, the District and DTSC entered into an O&M Agreement.

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/24/2014
Comments: Phase I Report for Background, O'Connor School Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/24/2014
Comments: Geotechnical Report for Background, O'Connor School Site

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/11/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/21/2015
Comments: On May 21, 2015, DTSC approved the PEA Report and the SFPD 4.15 with a further action determination. The District entered into an O&M Agreement with DTSC on 5/21/2015 for the NOA in the AB material underneath the parking area/building.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/29/2014
Comments: On May 29, 2014, DTSC received the PEA Workplan Addendum and approved it for implementation on the same day.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/17/2015
Comments: On July 16, 2015, DTSC conducted a site visit during the District's construction project where there's NOA intrusive work. During the site visit, DTSC observed the dust monitoring, dust mitigation and posting of the site that NOA intrusive work activities will be happening at the site per the O&M Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 04/04/2018
Comments: On April 4, 2018, DTSC approved the revised Radon Sampling Workplan for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/28/2017
Comments: Not reported

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 12/18/2018
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2023
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Plan
Schedule Due Date: 01/11/2019
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 01/14/2019
Schedule Revised Date: Not reported

HAZNET:
Name: LAUREL SCHOOL UPPER CAMPUS
Address: 275 ELLIOTT DR
City,State,Zip: MENLO PARK, CA 940252624
Year: 2015
GEPAID: CAC002814277
Contact: AHMAD SHEIKHOLESLAMI
Telephone: 6503217140
Mailing Name: Not reported
Mailing Address: 181 ENCINAL AVE
Mailing City,St,Zip: ATHERTON, CA 940273102
Gen County: San Mateo
TSD EPA ID: AZD983476680
TSD County: 99
Tons: 0.20497
CA Waste Code: 261-Polychlorinated biphenyls and material containing PCBs
Method: -
Facility County: San Mateo

Name: LAUREL SCHOOL UPPER CAMPUS
Address: 275 ELLIOTT DR
City,State,Zip: MENLO PARK, CA 940252624
Year: 2015
GEPAID: CAC002814277
Contact: AHMAD SHEIKHOLESLAMI
Telephone: 6503217140
Mailing Name: Not reported
Mailing Address: 181 ENCINAL AVE
Mailing City,St,Zip: ATHERTON, CA 940273102
Gen County: San Mateo
TSD EPA ID: CAD980675276
TSD County: Kern
Tons: 21.15
CA Waste Code: 611-Contaminated soil from site clean-up
Method: H132-Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Facility County: San Mateo

Name: LAUREL SCHOOL UPPER CAMPUS
Address: 275 ELLIOTT DR
City,State,Zip: MENLO PARK, CA 940252624
Year: 2015
GEPAID: CAC002814277
Contact: AHMAD SHEIKHOLESLAMI
Telephone: 6503217140
Mailing Name: Not reported
Mailing Address: 181 ENCINAL AVE
Mailing City,St,Zip: ATHERTON, CA 940273102
Gen County: San Mateo
TSD EPA ID: CAD982042475
TSD County: Solano
Tons: 6.9
CA Waste Code: 151-Asbestos containing waste
Method: H132-Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: San Mateo

NPDES:
Name: LAUREL UPPER SCHOOL CAMPUS
Address: 275 ELLIOT DRIVE
City,State,Zip: MENLO PARK, CA 94027
Facility Status: Terminated
NPDES Number: CAS000002
Region: 2
Agency Number: 0
Regulatory Measure ID: 453401
Place ID: Not reported
Order Number: 2009-0009-DWQ
WDID: 2 41C372558
Regulatory Measure Type: Enrollee
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 04/02/2015
Termination Date Of Regulatory Measure: 04/12/2017
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: 181 Encinal Ave
Discharge Name: Menlo Park City School District
Discharge City: Atherton
Discharge State: California
Discharge Zip: 94027
Status: Not reported
Status Date: Not reported
Operator Name: Not reported
Operator Address: Not reported
Operator City: Not reported
Operator State: Not reported
Operator Zip: Not reported

NPDES as of 03/2018:
NPDES Number: CAS000002
Status: Terminated
Agency Number: 0
Region: 2

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Regulatory Measure ID:	453401
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41C372558
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/02/2015
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	04/12/2017
Discharge Name:	Menlo Park City School District
Discharge Address:	181 Encinal Ave
Discharge City:	Atherton
Discharge State:	California
Discharge Zip:	94027
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	453401
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 41C372558
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	04/12/2017
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	03/27/2015
Processed Date:	04/02/2015
Status:	Terminated
Status Date:	04/12/2017
Place Size:	6
Place Size Unit:	Acres
Contact:	Ahmad Sheikholeslami
Contact Title:	Not reported
Contact Phone:	650-321-7140
Contact Phone Ext:	5614
Contact Email:	ahmad@mpcsd.org
Operator Name:	Menlo Park City School District
Operator Address:	181 Encinal Ave
Operator City:	Atherton
Operator State:	California
Operator Zip:	94027
Operator Contact:	Ahmad Sheikholeslami
Operator Contact Title:	Not reported
Operator Contact Phone:	650-321-7140
Operator Contact Phone Ext:	5614
Operator Contact Email:	ahmad@mpcsd.org
Operator Type:	Other
Developer:	Menlo Park City School District

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Developer Address:	181 Encinal Ave
Developer City:	Atherton
Developer State:	California
Developer Zip:	94027
Developer Contact:	Ahmad Sheikholeslami
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisquito
Certifier:	Ahmad Sheikholeslami
Certifier Title:	Chief Business and Operations Officer
Certification Date:	27-MAR-15
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Name:	LAUREL UPPER SCHOOL CAMPUS
Address:	275 ELLIOT DRIVE
City,State,Zip:	MENLO PARK, CA 94027
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 41C372558
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Status:	Terminated
Status Date:	04/12/2017
Operator Name:	Menlo Park City School District
Operator Address:	181 Encinal Ave
Operator City:	Atherton
Operator State:	California
Operator Zip:	94027

NPDES as of 03/2018:

NPDES Number:	CAS000002
Status:	Terminated
Agency Number:	0
Region:	2
Regulatory Measure ID:	453401
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 41C372558
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/02/2015
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	04/12/2017
Discharge Name:	Menlo Park City School District
Discharge Address:	181 Encinal Ave
Discharge City:	Atherton
Discharge State:	California
Discharge Zip:	94027
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	453401
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 41C372558
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	04/12/2017
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	03/27/2015
Processed Date:	04/02/2015
Status:	Terminated
Status Date:	04/12/2017
Place Size:	6
Place Size Unit:	Acres
Contact:	Ahmad Sheikholeslami
Contact Title:	Not reported
Contact Phone:	650-321-7140
Contact Phone Ext:	5614
Contact Email:	ahmad@mpcsd.org

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Operator Name:	Menlo Park City School District
Operator Address:	181 Encinal Ave
Operator City:	Atherton
Operator State:	California
Operator Zip:	94027
Operator Contact:	Ahmad Sheikholeslami
Operator Contact Title:	Not reported
Operator Contact Phone:	650-321-7140
Operator Contact Phone Ext:	5614
Operator Contact Email:	ahmad@mpcsd.org
Operator Type:	Other
Developer:	Menlo Park City School District
Developer Address:	181 Encinal Ave
Developer City:	Atherton
Developer State:	California
Developer Zip:	94027
Developer Contact:	Ahmad Sheikholeslami
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Francisquito
Certifier:	Ahmad Sheikholeslami
Certifier Title:	Chief Business and Operations Officer
Certification Date:	27-MAR-15
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CIWQS:

Name:	LAUREL UPPER SCHOOL CAMPUS
Address:	275 ELLIOT DRIVE
City,State,Zip:	MENLO PARK, CA 94027
Agency:	Menlo Park City School District
Agency Address:	181 Encinal Ave, Atherton, CA 94027
Place/Project Type:	Construction
SIC/NAICS:	Not reported
Region:	2
Program:	CONSTW

LAUREL UPPER SCHOOL CAMPUS (Continued) **S115779977**

Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	2 41C372558
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	04/02/2015
Termination Date:	04/12/2017
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.45943
Longitude:	-122.14667

---

60 **SHELL STATION** **LUST S109285813**
NNE **2194 UNIVERSITY** **CERS N/A**
1/4-1/2 **EAST PALO ALTO, CA 94303**
0.330 mi.
1742 ft.

Relative:
Lower

Actual:
18 ft.

LUST:

Name:	SHELL STATION
Address:	2194 UNIVERSITY
City,State,Zip:	EAST PALO ALTO, CA 94303
Lead Agency:	SAN MATEO COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608182543
Global Id:	T0608182543
Latitude:	37.465311
Longitude:	-122.141234
Status:	Completed - Case Closed
Status Date:	12/10/2004
Case Worker:	Not reported
RB Case Number:	Not reported
Local Agency:	Not reported
File Location:	Local Agency Warehouse
Local Case Number:	890022
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0608182543
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0608182543
Action Type:	Other

SHELL STATION (Continued) **S109285813**

Date: 12/03/2002
Action: Leak Discovery

Global Id: T0608182543
Action Type: ENFORCEMENT
Date: 12/30/2002
Action: Notice of Responsibility - #1

Global Id: T0608182543
Action Type: ENFORCEMENT
Date: 12/10/2004
Action: Closure/No Further Action Letter - #20041210

Global Id: T0608182543
Action Type: ENFORCEMENT
Date: 04/01/2003
Action: Staff Letter - #20030401

Global Id: T0608182543
Action Type: ENFORCEMENT
Date: 02/10/2004
Action: Staff Letter - #20040210

Global Id: T0608182543
Action Type: Other
Date: 12/03/2002
Action: Leak Reported

Global Id: T0608182543
Action Type: RESPONSE
Date: 08/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0608182543
Action Type: RESPONSE
Date: 02/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0608182543
Action Type: RESPONSE
Date: 05/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0608182543
Action Type: RESPONSE
Date: 08/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0608182543
Action Type: RESPONSE
Date: 11/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0608182543
Action Type: RESPONSE
Date: 04/13/2004
Action: Request for Closure

SHELL STATION (Continued) **S109285813**

LUST:
Global Id: T0608182543
Status: Open - Case Begin Date
Status Date: 12/03/2002

Global Id: T0608182543
Status: Open - Verification Monitoring
Status Date: 02/10/2004

Global Id: T0608182543
Status: Completed - Case Closed
Status Date: 12/10/2004

SAN MATEO CO. LUST:
Name: SHELL STATION
Address: 2194 UNIVERSITY AVE
City,State,Zip: EAST PALO ALTO, CA
Region: SAN MATEO
Facility ID: 890022
Facility Status: 9- Case Closed
Global ID: T0608182543
APN Number: 063321400
Case Type: EAST PALO ALTO, CA
EDR Link ID: EAST PALO ALTO, CA

CERS:
Name: SHELL STATION
Address: 2194 UNIVERSITY
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 217626
CERS ID: T0608182543
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Q61 **PRIVATE RESIDENCE** **LUST** **S110655460**
SSE **PRIVATE RESIDENCE** **N/A**
1/4-1/2 **PALO ALTO, CA 94301**
0.395 mi.
2083 ft. **Site 1 of 2 in cluster Q**

Relative: **Higher**
Actual: **28 ft.**

LUST:
Name: PRIVATE RESIDENCE
Address: PRIVATE RESIDENCE
City,State,Zip: PALO ALTO, CA 94301
Lead Agency: SANTA CLARA COUNTY LOP

PRIVATE RESIDENCE (Continued) **S110655460**

Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608545440
Global Id: T0608545440
Latitude: 37.455557
Longitude: -122.142323
Status: Completed - Case Closed
Status Date: 01/21/2000
Case Worker: UST
RB Case Number: Not reported
Local Agency: SANTA CLARA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: Not reported
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0608545440
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

Global Id: T0608545440
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

LUST:
Global Id: T0608545440
Action Type: RESPONSE
Date: 01/21/2000
Action: Other Report / Document

Global Id: T0608545440
Action Type: RESPONSE
Date: 08/13/1999
Action: Tank Removal Report / UST Sampling Report

Global Id: T0608545440
Action Type: ENFORCEMENT
Date: 01/21/2000
Action: Closure/No Further Action Letter

Global Id: T0608545440
Action Type: Other
Date: 12/15/1998
Action: Leak Reported

Global Id: T0608545440

PRIVATE RESIDENCE (Continued) **S110655460**

Action Type: RESPONSE
Date: 01/04/1999
Action: Unauthorized Release Form

LUST:
Global Id: T0608545440
Status: Open - Case Begin Date
Status Date: 12/15/1998

Global Id: T0608545440
Status: Open - Site Assessment
Status Date: 08/01/1999

Global Id: T0608545440
Status: Completed - Case Closed
Status Date: 01/21/2000

Q62 **GIRAND RESIDENCE** **LUST S103971588**
SSE **590 CRESCENT** **HIST LUST N/A**
1/4-1/2 **PALO ALTO, CA 94301** **HIST CORTESE**
0.398 mi.
2099 ft. **Site 2 of 2 in cluster Q**

Relative:
Higher

Actual:
28 ft.

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 05S3W36F02f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 8/1/1999
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Name: GIRAND RESIDENCE
Address: 590 E CRESCENT DR
City,State,Zip: PALO ALTO, CA
Region: SANTA CLARA
SCVWD ID: 05S3W36F02F
Date Closed: 01/21/2000
EDR Link ID: 05S3W36F02F

HIST LUST SANTA CLARA:
Name: Girand Residence
Address: 590 E Crescent Dr
City: Palo Alto
Region: SANTA CLARA
Region Code: 2

GIRAND RESIDENCE (Continued) **S103971588**

SCVWD ID: 05S3W36F02
Oversite Agency: SCVWD
Date Listed: 2000-01-21 00:00:00
Closed Date: 2000-01-21 00:00:00

HIST CORTESE:
edr_fname: GIRAND RESIDENCE
edr_fadd1: 590 CRESCENT
City,State,Zip: PALO ALTO, CA 94301
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-2349

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63 **EAST PALO ALTO - GREEN STREET 794** **US BROWNFIELDS** **1024008518**
ENE **794 GREEN ST.** **FINDS** **N/A**
1/4-1/2 **PALO ALTO, CA 94303**
0.407 mi.
2149 ft.

Relative:
Lower

Actual:
17 ft.

US BROWNFIELDS:
Name: EAST PALO ALTO - GREEN STREET 794
Address: 794 GREEN ST.
City,State,Zip: PALO ALTO, CA 94303
Recipient Name: R9 TBA (STAG Funded)
Grant Type: TBA
Property Number: Not reported
Parcel size: .25
Latitude: 37.4640676
Longitude: -122.1375431
HCM Label: Not reported
Map Scale: Not reported
Point of Reference: Not reported
Highlights: Not reported
Datum: Not reported
Acres Property ID: 225141
IC Data Access: Not reported
Start Date: Not reported
Redev Completition Date: Not reported
Completed Date: Not reported
Acres Cleaned Up: Not reported
Cleanup Funding: Not reported
Cleanup Funding Source: Not reported
Assessment Funding: 10000
Assessment Funding Source: US EPA - TBA Funding
Redevelopment Funding: Not reported
Redev. Funding Source: Not reported
Redev. Funding Entity Name: Not reported
Redevelopment Start Date: Not reported
Assessment Funding Entity: EPA
Cleanup Funding Entity: Not reported
Grant Type: N/A
Accomplishment Type: Phase I Environmental Assessment
Accomplishment Count: 1
Cooperative Agreement Number: n/a
Start Date: 12/01/2014 00:00:00
Ownership Entity: Private

EAST PALO ALTO - GREEN STREET 794 (Continued) **1024008518**

Completion Date:	07/11/2016 00:00:00
Current Owner:	Apostolic Assembly of Faith
Did Owner Change:	N
Cleanup Required:	Y
Video Available:	N
Photo Available:	Y
Institutional Controls Required:	U
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	N
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Y
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported

EAST PALO ALTO - GREEN STREET 794 (Continued) **1024008518**

Future use commercial acreage:	.25
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	There is a site history of agricultural land use and more recently use of Site for vehicle storage. The proposed reuse of this Site is as a day care facility or early childhood education program. Cleanup of the Site will be required to a residential standard before planned reuse/redevelopment can begin. The findings of this TBA may also have implications for the resident caretaker and two children who currently reside on the Site.
Below Poverty Number:	1919
Below Poverty Percent:	22.1%
Meidan Income:	16461
Meidan Income Number:	4241
Meidan Income Percent:	48.8%
Vacant Housing Number:	177
Vacant Housing Percent:	7.8%
Unemployed Number:	480
Unemployed Percent:	5.5%
Name:	EAST PALO ALTO - GREEN STREET 794
Address:	794 GREEN ST.
City,State,Zip:	PALO ALTO, CA 94303
Recipient Name:	R9 TBA (STAG Funded)
Grant Type:	TBA

EAST PALO ALTO - GREEN STREET 794 (Continued) **1024008518**

Property Number:	Not reported
Parcel size:	.25
Latitude:	37.4640676
Longitude:	-122.1375431
HCM Label:	Not reported
Map Scale:	Not reported
Point of Reference:	Not reported
Highlights:	Not reported
Datum:	Not reported
Acres Property ID:	225141
IC Data Access:	Not reported
Start Date:	Not reported
Redev Completition Date:	Not reported
Completed Date:	Not reported
Acres Cleaned Up:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Assessment Funding:	67300
Assessment Funding Source:	US EPA - TBA Funding
Redevelopment Funding:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	EPA
Cleanup Funding Entity:	Not reported
Grant Type:	N/A
Accomplishment Type:	Phase II Environmental Assessment
Accomplishment Count:	0
Cooperative Agreement Number:	n/a
Start Date:	12/01/2014 00:00:00
Ownership Entity:	Private
Completion Date:	07/11/2016 00:00:00
Current Owner:	Apostolic Assembly of Faith
Did Owner Change:	N
Cleanup Required:	Y
Video Available:	N
Photo Available:	Y
Institutional Controls Required:	U
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	N
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported

EAST PALO ALTO - GREEN STREET 794 (Continued) **1024008518**

Lead contaminant found:	Y
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Y
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	.25
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported

EAST PALO ALTO - GREEN STREET 794 (Continued) **1024008518**

SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	There is a site history of agricultural land use and more recently use of Site for vehicle storage. The proposed reuse of this Site is as a day care facility or early childhood education program. Cleanup of the Site will be required to a residential standard before planned reuse/redevelopment can begin. The findings of this TBA may also have implications for the resident caretaker and two children who currently reside on the Site.
Below Poverty Number:	1919
Below Poverty Percent:	22.1%
Meidan Income:	16461
Meidan Income Number:	4241
Meidan Income Percent:	48.8%
Vacant Housing Number:	177
Vacant Housing Percent:	7.8%
Unemployed Number:	480
Unemployed Percent:	5.5%

FINDS:

Registry ID: 110070106108

Environmental Interest/Information System
US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an federal online database for Brownfields Grantees to electronically submit data directly to EPA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

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64 **755 SCHEMBRI LANE** **ENVIROSTOR** **S123133187**
NE **755 SCHEMBRI LANE** **VCP** **N/A**
1/2-1 **EAST PALO ALTO, CA 94303**
0.523 mi.
2762 ft.

Relative:
Lower

Actual:
16 ft.

ENVIROSTOR:

Name:	755 SCHEMBRI LANE
Address:	755 SCHEMBRI LANE
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	60002708
Status:	No Further Action
Status Date:	10/23/2018
Site Code:	202197
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	1.5
NPL:	NO

755 SCHEMBRI LANE (Continued) **S123133187**

Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Nicole Yuen
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: , 24
Senate: , 13
Special Program: Voluntary Cleanup Program
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.46751
Longitude: -122.1376
APN: 063-361-260, 063-361-400, 063361260, 063361400
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: Chlordane DDE DDT Dieldrin
Confirmed COC: Chlordane DDE DDT Dieldrin
Potential Description: SOIL
Alias Name: 063-361-260
Alias Type: APN
Alias Name: 063-361-400
Alias Type: APN
Alias Name: 063361260
Alias Type: APN
Alias Name: 063361400
Alias Type: APN
Alias Name: 202197
Alias Type: Project Code (Site Code)
Alias Name: 60002708
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/17/2018
Comments: This letter provides notification to the project proponent that DTSC was determined to be the appropriate lead agency for oversight of this project.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 10/03/2018
Comments: Voluntary Oversight Agreement between DTSC and the Richard and Susan Jacobsen Family Trust. DTSC will review the submitted data to determine if remediation conducted without DTSC oversight fully addressed hazardous substances on the Site that may pose a significant risk to human health and the environment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 08/17/2018
Comments: Request for Agency Oversight Application submitted by the Site owner to DTSC.

Completed Area Name: PROJECT WIDE

755 SCHEMBRI LANE (Continued) **S123133187**

Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	10/23/2018
Comments:	Organochlorine pesticides from past agricultural use were detected in shallow soil samples collected at the Site. Arsenic, dieldrin, DDE/DDT, chlordane, and beta-BHC were the only contaminants detected at concentrations above the applicable residential DTSC screening levels and the USEPA Regional Screening Levels. Arsenic concentrations were consistent with naturally-occurring background concentrations in Santa Clara County. Soil with contaminant concentrations above residential screening levels were excavated from the Site. This work was conducted without DTSC oversight and summarized in the report reviewed by DTSC. DTSC concludes that no further action is required at the Site.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

VCP:

Name:	755 SCHEMBRI LANE
Address:	755 SCHEMBRI LANE
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	60002708
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.5
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Nicole Yuen
Supervisor:	Mark Piros
Division Branch:	Cleanup Berkeley
Site Code:	202197
Assembly:	, 24
Senate:	, 13
Special Programs Code:	Voluntary Cleanup Program
Status:	No Further Action
Status Date:	10/23/2018
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	37.46751 / -122.1376
APN:	063-361-260, 063-361-400, 063361260, 063361400
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC:	30004, 30007, 30008, 30207
Confirmed COC:	30004,30007,30008,30207
Potential Description:	SOIL
Alias Name:	063-361-260
Alias Type:	APN

755 SCHEMBRI LANE (Continued) **S123133187**

Alias Name: 063-361-400
Alias Type: APN
Alias Name: 063361260
Alias Type: APN
Alias Name: 063361400
Alias Type: APN
Alias Name: 202197
Alias Type: Project Code (Site Code)
Alias Name: 60002708
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/17/2018
Comments: This letter provides notification to the project proponent that DTSC was determined to be the appropriate lead agency for oversight of this project.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 10/03/2018
Comments: Voluntary Oversight Agreement between DTSC and the Richard and Susan Jacobsen Family Trust. DTSC will review the submitted data to determine if remediation conducted without DTSC oversight fully addressed hazardous substances on the Site that may pose a significant risk to human health and the environment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 08/17/2018
Comments: Request for Agency Oversight Application submitted by the Site owner to DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/23/2018
Comments: Organochlorine pesticides from past agricultural use were detected in shallow soil samples collected at the Site. Arsenic, dieldrin, DDE/DDT, chlordane, and beta-BHC were the only contaminants detected at concentrations above the applicable residential DTSC screening levels and the USEPA Regional Screening Levels. Arsenic concentrations were consistent with naturally-occurring background concentrations in Santa Clara County. Soil with contaminant concentrations above residential screening levels were excavated from the Site. This work was conducted without DTSC oversight and summarized in the report reviewed by DTSC. DTSC concludes that no further action is required at the Site.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported

755 SCHEMBRI LANE (Continued) **S123133187**

Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

65
ENE
1/2-1
0.645 mi.
3404 ft.

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 **ENVIROSTOR** **S114002217**
980 AND 992 MYRTLE STREET **VCP** **N/A**
EAST PALO ALTO, CA 94303 **DEED**

Relative:
Lower

Actual:
12 ft.

ENVIROSTOR:
Name: MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2
Address: 980 AND 992 MYRTLE STREET
City,State,Zip: EAST PALO ALTO, CA 94303
Facility ID: 60001925
Status: Certified O&M - Land Use Restrictions Only
Status Date: 06/30/2015
Site Code: 201984
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 0.9
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Claude Jemison
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: 24
Senate: 13
Special Program: Voluntary Cleanup Program
Restricted Use: YES
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.46288
Longitude: -122.1326
APN: 063352170
Past Use: AGRICULTURAL - ORCHARD
Potential COC: Arsenic DDD DDE DDT Lead Dieldrin
Confirmed COC: Arsenic DDD DDE DDT Lead Dieldrin
Potential Description: SOIL
Alias Name: 063352170
Alias Type: APN
Alias Name: 201984
Alias Type: Project Code (Site Code)
Alias Name: 60001925
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 09/23/2013
Comments: Agreement signed for cleanup of lead and pesticide contamination in soil at the proposed school expansion.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Completed Document Type: CEQA - Notice of Exemption
Completed Date: 12/26/2013
Comments: Finalized NOE. No comments were received during the 37-day comment period that ran from November 18 through December 24, 2013. The comment period was extended for an additional seven days because of the holidays.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 06/29/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 06/30/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 06/23/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/27/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: LUR - Notification Response
Completed Date: 06/30/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/28/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/13/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 10/10/2013
Comments: The document presents the results of soil sampling and risk evaluation. Contaminants of concern includes pesticides and lead.

Completed Area Name: PROJECT WIDE

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 12/27/2013
Comments: Final RAW approved for removal of contaminated soil from the Site. Contaminants include arsenic, lead, chlordane, dieldrin and DDT.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 12/24/2013
Comments: Public comment period on the Draft RAW ran from November 18 through December 24, 2013. The comment period was extended for an additional seven days because of the holidays.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/09/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/09/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 11/12/2013
Comments: Fact Sheet for RAW comment period of 11/18 to 12/24/2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 01/27/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 01/30/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 10/09/2013
Comments: The Community Profile for the phase 1 school site was updated for demographics and elected officials for use at this site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 09/19/2013
Comments: Workplan for soil and groundwater sampling to supplemen the Phase 1 ESA data. Previous data and results of this sampling will be used in

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

the human health risk evaluation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/14/2014
Comments: Soil remediation by capping and school construction completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 02/27/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 02/23/2017
Comments: Report for gymnasium construction and annual cap inspection.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 03/12/2018
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2019
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:
Name: MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2
Address: 980 AND 992 MYRTLE STREET
City,State,Zip: EAST PALO ALTO, CA 94303
Facility ID: 60001925
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 0.9
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Claude Jemison
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Site Code: 201984
Assembly: 24
Senate: 13
Special Programs Code: Voluntary Cleanup Program
Status: Certified O&M - Land Use Restrictions Only

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Status Date:	06/30/2015
Restricted Use:	YES
Funding:	Responsible Party
Lat/Long:	37.46288 / -122.1326
APN:	063352170
Past Use:	AGRICULTURAL - ORCHARD
Potential COC:	30001, 30006, 30007, 30008, 30013, 30207
Confirmed COC:	30001,30006,30007,30008,30013,30207
Potential Description:	SOIL
Alias Name:	063352170
Alias Type:	APN
Alias Name:	201984
Alias Type:	Project Code (Site Code)
Alias Name:	60001925
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	09/23/2013
Comments:	Agreement signed for cleanup of lead and pesticide contamination in soil at the proposed school expansion.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Notice of Exemption
Completed Date:	12/26/2013
Comments:	Finalized NOE. No comments were received during the 37-day comment period that ran from November 18 through December 24, 2013. The comment period was extended for an additional seven days because of the holidays.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction
Completed Date:	06/29/2015
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	06/30/2015
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operation & Maintenance Order/Agreement
Completed Date:	06/23/2015
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	08/27/2014
Comments:	Not reported

Completed Area Name:	PROJECT WIDE

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Completed Sub Area Name: Not reported
Completed Document Type: LUR - Notification Response
Completed Date: 06/30/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/28/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/13/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 10/10/2013
Comments: The document presents the results of soil sampling and risk evaluation. Contaminants of concern includes pesticides and lead.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 12/27/2013
Comments: Final RAW approved for removal of contaminated soil from the Site. Contaminants include arsenic, lead, chlordane, dieldrin and DDT.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 12/24/2013
Comments: Public comment period on the Draft RAW ran from November 18 through December 24, 2013. The comment period was extended for an additional seven days because of the holidays.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/09/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/09/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 11/12/2013
Comments: Fact Sheet for RAW comment period of 11/18 to 12/24/2013.

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	01/27/2015
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Plan
Completed Date:	01/30/2015
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Community Profile
Completed Date:	10/09/2013
Comments:	The Community Profile for the phase 1 school site was updated for demographics and elected officials for use at this site.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation Workplan
Completed Date:	09/19/2013
Comments:	Workplan for soil and groundwater sampling to supplemen the Phase 1 ESA data. Previous data and results of this sampling will be used in the human health risk evaluation.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	08/14/2014
Comments:	Soil remediation by capping and school construction completed.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Characterization Report
Completed Date:	02/27/2014
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Report
Completed Date:	02/23/2017
Comments:	Report for gymnasium construction and annual cap inspection.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Land Use Restriction Monitoring Report
Completed Date:	03/12/2018
Comments:	Not reported

Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	5 Year Review Reports
Future Due Date:	2019
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported

MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2 (Continued) **S114002217**

Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

DEED:
Name: MYRTLE STREET HIGH SCHOOL CAMPUS PHASE 2
Address: 980 AND 992 MYRTLE STREET
City,State,Zip: EAST PALO ALTO, CA 94303
Envirostor ID: 60001925
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 06/29/2015
File Name: Envirostor Land Use Restrictions

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66 **MYRTLE STREET HIGH SCHOOL CAMPUS** **ENVIROSTOR** **S110121734**
ENE **1010, 1020, 1040, 1054 & 1056 MYRTLE STREET** **SCH** **N/A**
1/2-1 **EAST PALO ALTO, CA 94303**
0.679 mi.
3587 ft.

Relative:
Lower

Actual:
12 ft.

ENVIROSTOR:
Name: MYRTLE STREET HIGH SCHOOL CAMPUS
Address: 1010, 1020, 1040, 1054 & 1056 MYRTLE STREET
City,State,Zip: EAST PALO ALTO, CA 94303
Facility ID: 60001223
Status: Certified
Status Date: 02/08/2011
Site Code: 204238
Site Type: School Cleanup
Site Type Detailed: School
Acres: 2
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Mellan Songco
Supervisor: Juan Koponen
Division Branch: Northern California Schools & Santa Susana
Assembly: 24
Senate: 13
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 37.4631
Longitude: -122.132
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ORCHARD, NURSERY, RESIDENTIAL AREA
Potential COC: Chlordane DDD DDE DDT Lead Dieldrin
Confirmed COC: 30004-NO 30013-NO 30006-NO 30007-NO 30008-NO 31000-NO 30207-NO
Potential Description: CSS, SOIL
Alias Name: Myrtle Street Campus
Alias Type: Alternate Name
Alias Name: 204238

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

Alias Type: Project Code (Site Code)
Alias Name: 60001223
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 01/21/2011
Comments: Received signed Removal Action Site Certification

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/21/2010
Comments: DTSC sent responses to public comments received during the draft RAW public comment period.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 03/15/2010
Comments: received fully executed agreement

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 12/23/2009
Comments: mailed fully executed EOA agreement to district

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 06/21/2010
Comments: Finalized the Sequoia Union High School District's NOE for the Myrtle St Campus. Forwarded the original copy of the NOE to the Office of Planning and Environmental Analysis on June 21, 2010.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/27/2010
Comments: DTSC (B. Duke) observed the implementation of the approved RAW on July 27, 2010.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/07/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/15/2010
Comments: DTSC approved the PEA with a further action determination

Completed Area Name: PROJECT WIDE

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/22/2009
Comments: An electronic copy of the Phase I Environmental Site Assessment for the Myrtle Street Campus was received on December 12, 2009 to be used as background information.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/10/2010
Comments: Received the electronic copy of the PEA workplan on 2/10/2010. This PEA workplan presents the sampling activities discussed during prior meetings and have already implemented. The PEA report will present this data.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 06/21/2010
Comments: DTSC approved the final RAW for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 05/17/2010
Comments: DTSC finalized the Community Profile Report for the Myrtle Street High School Campus.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 03/29/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 05/04/2010
Comments: DTSC approved the SSI with a further action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 05/13/2010
Comments: Final Factsheet was provided to the District to be filed in the information repository for the 30-day public comment period. The public comment period is from May 17 through June 15, 2010.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/25/2010
Comments: DTSC approved the Sandis confirmation land survey

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

Completed Document Type:	Removal Action Completion Report
Completed Date:	12/23/2010
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	MYRTLE STREET HIGH SCHOOL CAMPUS
Address:	1010, 1020, 1040, 1054 & 1056 MYRTLE STREET
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	60001223
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	2
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Mellan Songco
Supervisor:	Juan Koponen
Division Branch:	Northern California Schools & Santa Susana
Site Code:	204238
Assembly:	24
Senate:	13
Special Program Status:	Not reported
Status:	Certified
Status Date:	02/08/2011
Restricted Use:	NO
Funding:	School District
Latitude:	37.4631
Longitude:	-122.132
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD, NURSERY, RESIDENTIAL AREA
Potential COC:	Chlordane, Chlordane, DDD, DDE, DDT, Lead, Dieldrin
Confirmed COC:	30004-NO, 30013-NO, 30006-NO, 30007-NO, 30008-NO, 31000-NO, 30207-NO
Potential Description:	CSS, SOIL
Alias Name:	Myrtle Street Campus
Alias Type:	Alternate Name
Alias Name:	204238
Alias Type:	Project Code (Site Code)
Alias Name:	60001223
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

Completed Date:	01/21/2011
Comments:	Received signed Removal Action Site Certification
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	06/21/2010
Comments:	DTSC sent responses to public comments received during the draft RAW public comment period.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	School Cleanup Agreement
Completed Date:	03/15/2010
Comments:	received fully executed agreement
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	12/23/2009
Comments:	mailed fully executed EOA agreement to district
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Notice of Exemption
Completed Date:	06/21/2010
Comments:	Finalized the Sequoia Union High School District's NOE for the Myrtle St Campus. Forwarded the original copy of the NOE to the Office of Planning and Environmental Analysis on June 21, 2010.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	07/27/2010
Comments:	DTSC (B. Duke) observed the implementation of the approved RAW on July 27, 2010.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	02/07/2011
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	04/15/2010
Comments:	DTSC approved the PEA with a further action determination
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	12/22/2009
Comments:	An electronic copy of the Phase I Environmental Site Assessment for the Myrtle Street Campus was received on December 12, 2009 to be used as background information.

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	02/10/2010
Comments:	Received the electronic copy of the PEA workplan on 2/10/2010. This PEA workplan presents the sampling activities discussed during prior meetings and have already implemented. The PEA report will present this data.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	06/21/2010
Comments:	DTSC approved the final RAW for implementation.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Community Profile
Completed Date:	05/17/2010
Comments:	DTSC finalized the Community Profile Report for the Myrtle Street High School Campus.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Workplan
Completed Date:	03/29/2010
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	05/04/2010
Comments:	DTSC approved the SSI with a further action determination

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fact Sheets
Completed Date:	05/13/2010
Comments:	Final Factsheet was provided to the District to be filed in the information repository for the 30-day public comment period. The public comment period is from May 17 through June 15, 2010.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	08/25/2010
Comments:	DTSC approved the Sandis confirmation land survey

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	12/23/2010
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported

MYRTLE STREET HIGH SCHOOL CAMPUS (Continued) **S110121734**

Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

67
West
1/2-1
0.813 mi.
4292 ft.

KNOWN
600 WILLOW ROAD
MENLO PARK, CA 92231

Database(s): Notify 65
EDR ID Number: S100178925
EPA ID Number: N/A

Relative:
Higher

Actual:
40 ft.

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

68
NE
1/2-1
0.834 mi.
4403 ft.

1010 RUNNYMEDE
1010 RUNNYMEDE
EAST PALO ALTO, CA 94303

Database(s): ENVIROSTOR, CPS-SLIC, CERS
EDR ID Number: S110121975
EPA ID Number: N/A

Relative:
Lower

Actual:
13 ft.

ENVIROSTOR:

Name:	1010 RUNNYMEDE
Address:	1010 RUNNYMEDE
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	60001548
Status:	Inactive - Needs Evaluation
Status Date:	10/01/2018
Site Code:	201908
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	1
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Tom Lanphar
Supervisor:	Julie Pettijohn
Division Branch:	Cleanup Berkeley
Assembly:	24
Senate:	13
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.46830
Longitude:	-122.1320
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD, NURSERY, RESIDENTIAL AREA, AGRICULTURAL - ORCHARD, NURSERY, RESIDENTIAL AREA

1010 RUNNYMEDE (Continued) **S110121975**

Potential COC: Lead Under Investigation
Confirmed COC: Under Investigation 30013-NO
Potential Description: SOIL
Alias Name: T0608106461
Alias Type: GeoTracker Global ID
Alias Name: 201908
Alias Type: Project Code (Site Code)
Alias Name: 60001548
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 11/09/2011
Comments: letter to property owner requesting information and meeting

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/02/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 11/05/2012
Comments: Site Assessment completed

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CPS-SLIC:
Name: KUNG PROPERTY
Address: 1010 RUNNYMEDE STREET
City,State,Zip: EAST PALO ALTO, CA 94303
Region: STATE
Facility Status: **Open - Remediation**
Status Date: 04/13/2004
Global Id: T0608106461
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number: 899019
Latitude: 37.468469955
Longitude: -122.133450781
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: SAN MATEO COUNTY LOP
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Soil

1010 RUNNYMEDE (Continued) **S110121975**

Potential Contaminants of Concern: Chlordane, DDD / DDE / DDT, Other Insecticides / Pesticide / Fumigants / Herbicides

Site History: Extracted from Purcell, Rhodes, and Associates' August 9, 2007 Soi lremediation Work Plan, San Mateo County does not take responsibility for the accuracy of the statements made or any professional interpretations made in the referenced report. Harza. March 27, 2001 This study consisted ol four sample locations, with one location in each quadrant of the property. One or more chlorinated pesticides were detected in each of the four samplings. Chlordane concentrations ranged from 88 to 120 parts per billion (ppb), DDE ranged from 74 to 1,300 ppb, DDT ranged from 72 to 1,000 ppb, dieldrin was detected in two of the sample locations at concentrations of 21 and 130 ppb, and heptachlor epoxide was detected in two sample locations at concentrations of 90 and 760 ppb. ICES. Julv 8, 2002 A site assessment was conducted by Innovative & Creative Environmental Solutions (ICES) in 2002. Twentyfour soil samples were collected. The results of this assessment was that only two organochlorine pesticides, DDE and DDT were detected with total cumulative DD compound concentrations ranging to 1.895 parts per million (ppm) in the upper 9 inches of the giound surface. Below this depth, concentrations ranged from nondetect to 0.0089 ppm. None of these samples detected chlordane, dieldrin or heptachlor epoxide. Based upon the concentrations detected by Harza, ICES prepared a Work Plan for soil remediation by removal and disposal of the upper 6 to 9 inches of the entire site. This Work Plan was approved by the San Mateo County Health Department. Assessco. Inc.. September 21, 2006 Al conducted additional sampling and analysis at this site, and concluded that organochlorine pesticides Dieldrin, Heptachlor Epoxide, and DDD-DDE-DDT compounds, and the heavy metal arsenic were detected above regulatory criteria. Al prepared a Work Plan recommending that the upper 12 inches of soil in three designated excavation areas be removed for disposal at a license disposal facility. San Mateo Countv Health Department, October 26, 2006 The County Health Department (CHD) reviewed the proposed Work Plan prepared by Al, and provided comment. The CHD noted that the proposed depth and extent of proposed remediation are estimates and may be much greater than anticipated. The CHD commented that site specific clean up goals were not proposed, and that default regulatory criteria was proposed as clean up goals. The CHD was concerned over the potential impact of the amount of excavation performed versus what could be considered acceptable for protection of human health and the environment, particularly with respect to arsenic. The CHD also noted the Work Plan did not present a methodology or frequency for confirmation sampling to assess clean up activities.

Click here to access the California GeoTracker records for this facility:

CERS:

Name:	KUNG PROPERTY
Address:	1010 RUNNYMEDE STREET
City,State,Zip:	EAST PALO ALTO, CA 94303
Site ID:	259297
CERS ID:	T0608106461
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker

1010 RUNNYMEDE (Continued) **S110121975**

Entity Name:	Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title:	Not reported
Affiliation Address:	1515 CLAY ST SUITE 1400
Affiliation City:	OAKLAND
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	DENO MILANO - SAN MATEO COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	2000 ALAMEDA DE LAS PULGAS SUITE 100
Affiliation City:	SAN MATEO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	6503726292

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69 **ELECTRITE PLATING COMPANY INC** **ENVIROSTOR** **1000181332**
NE **1805 BAY ROAD** **LUST** **N/A**
1/2-1 **PALO ALTO, CA 94303** **FINDS**
0.925 mi. **ECHO**
4883 ft. **HIST CORTESE**
CERS

Relative:
Lower

Actual:
18 ft.

ENVIROSTOR:

Name:	ELECTRITE COMPANY, INC
Address:	1805 BAY ROAD
City,State,Zip:	EAST PALO ALTO, CA 94303
Facility ID:	41340028
Status:	Refer: RWQCB
Status Date:	07/29/1994
Site Code:	Not reported
Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Berkeley
Assembly:	24
Senate:	13
Special Program:	* CERC2
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.47238
Longitude:	-122.1345
APN:	063133130
Past Use:	NONE SPECIFIED
Potential COC:	* LIQUIDS WITH PH <= 2 * Metals - Sludge * CONTAMINATED SOIL * ACID SOLUTION 2>PH WITH METALS * ALKALINE SOLUTION 2<PH<12.5, WITH METALS Lead Cadmium and compounds Chromium VI Cyanide (free Nickel
Confirmed COC:	NONE SPECIFIED

ELECTRITE PLATING COMPANY INC (Continued) **1000181332**

Potential Description: NONE SPECIFIED
Alias Name: 063133130
Alias Type: APN
Alias Name: CAD009119959
Alias Type: EPA Identification Number
Alias Name: 41340028
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 08/01/1980
Comments: FACILITY IDENTIFIED ACTIVE SITE I.D.'D IND. OF DRIVE BY * EQ

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 11/03/1987
Comments: PRELIM ASSESS DONE SI MEDIUM TO ENCOMPASS EXTENT OF GRG WTR AND SOIL CONTMN.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 07/20/1987
Comments: SITE SCREENING DONE FROM 1963 SITE USED FOR PLATING OPERATIONS. SURVEY FORM COMPLETED BY CO IN 1980 INDICATES WASTES DISPOSED OF TO THE SEWER. NO WASTES WERE DISPOSED OF OFF SITE PRIOR TO 1972

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/20/2007
Comments: Further Action required SFBRWQCB is the lead. Plating shop with illegal discharges to the sewer.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:
Name: ELECTRITE COMPANY INC
Address: 1805 BAY RD
City,State,Zip: EAST PALO ALTO, CA 94303
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608101036
Global Id: T0608101036
Latitude: 37.472383
Longitude: -122.134547

ELECTRITE PLATING COMPANY INC (Continued) **1000181332**

Status: Completed - Case Closed
Status Date: 04/13/2009
Case Worker: Not reported
RB Case Number: 41-1127
Local Agency: Not reported
File Location: Not reported
Local Case Number: 899002
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0608101036
Action Type: Other
Date: 02/15/1994
Action: Leak Discovery

Global Id: T0608101036
Action Type: Other
Date: 02/15/1994
Action: Leak Stopped

Global Id: T0608101036
Action Type: Other
Date: 02/15/1994
Action: Leak Reported

Global Id: T0608101036
Action Type: ENFORCEMENT
Date: 04/13/2009
Action: Closure/No Further Action Letter

LUST:
Global Id: T0608101036
Status: Open - Case Begin Date
Status Date: 02/15/1994

Global Id: T0608101036
Status: Open - Site Assessment
Status Date: 07/14/1998

Global Id: T0608101036
Status: Completed - Case Closed
Status Date: 04/13/2009

LUST REG 2:
Region: 2
Facility Id: 41-1127
Facility Status: Pollution Characterization
Case Number: 899002
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported

ELECTRITE PLATING COMPANY INC (Continued) **1000181332**

Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: 7/14/1998
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

FINDS:

Registry ID: 110006466751

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000181332
Registry ID: 110006466751
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110006466751

HIST CORTESE:
edr_fname: ELECTRITE COMPANY INC
edr_fadd1: 1805 BAY
City,State,Zip: EAST PALO ALTO, CA 94303
Region: CORTESE
Facility County Code: 41
Reg By: LTNKA
Reg Id: 41-1127

CERS:
Name: ELECTRITE COMPANY INC
Address: 1805 BAY RD
City,State,Zip: EAST PALO ALTO, CA 94303
Site ID: 200748
CERS ID: T0608101036
CERS Description: Leaking Underground Storage Tank Cleanup Site

Count: 1 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
EAST PALO ALTO	S106234944	PENINSULA SPORTSMENS CLUB	UNIVERSITY AVENUE		CPS-SLIC

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/03/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/13/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 6

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/19/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/19/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 04/29/2019
Date Data Arrived at EDR: 04/30/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 58

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 04/29/2019
Date Data Arrived at EDR: 04/30/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 58

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/13/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/13/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 08/05/2019
Number of Days to Update: 55

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/23/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 08/05/2019
Number of Days to Update: 55
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 08/26/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/12/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 41

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/12/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 42

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/17/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/05/2019
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/23/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/20/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 04/29/2019
Date Data Arrived at EDR: 04/30/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 58
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 57
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/25/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/04/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 07/25/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/12/2019
Date Made Active in Reports: 08/15/2019
Number of Days to Update: 64

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/12/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 03/26/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 34

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/25/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 08/02/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 04/29/2019
Date Data Arrived at EDR: 04/30/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 58

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/12/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 06/28/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 26

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/28/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/04/2018
Date Data Arrived at EDR: 12/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 09/11/2018
Date Data Arrived at EDR: 09/12/2018
Date Made Active in Reports: 10/11/2018
Number of Days to Update: 29

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 06/05/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/09/2019
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/30/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 65

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 49

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 05/15/2019
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 58

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/26/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 08/05/2019
Number of Days to Update: 55

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/15/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 79

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/23/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/16/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/07/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/09/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/18/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/23/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 09/30/2018
Date Data Arrived at EDR: 04/24/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 106

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/26/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/22/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 34
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/12/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 07/03/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/20/2019
Date Data Arrived at EDR: 06/20/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 49
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/06/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/03/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/09/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/02/2019
Date Data Arrived at EDR: 04/02/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 42
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 04/01/2019
Date Data Arrived at EDR: 04/30/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 100

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 30

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/30/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2019
Date Data Arrived at EDR: 05/29/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 71

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/27/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/30/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/30/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019
Date Data Arrived at EDR: 03/28/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 34

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 08/27/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/03/2019
Date Data Arrived at EDR: 06/05/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 90

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/15/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/07/2019
Date Data Arrived at EDR: 04/09/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 79

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 57

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/25/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 08/15/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 04/18/2019
Date Data Arrived at EDR: 04/19/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 11

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 55
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/19/2019
Date Data Arrived at EDR: 03/22/2019
Date Made Active in Reports: 04/09/2019
Number of Days to Update: 18
Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 65
Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 59
Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/24/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 11/02/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 41
Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/18/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64
Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/15/2019
Date Data Arrived at EDR: 05/16/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 63
Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 05/29/2019
Date Made Active in Reports: 07/22/2019
Number of Days to Update: 54

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/12/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/08/2019
Date Data Arrived at EDR: 04/09/2019
Date Made Active in Reports: 05/30/2019
Number of Days to Update: 51

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 08/15/2019
Number of Days to Update: 65

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/17/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/09/2019
Number of Days to Update: 66

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/13/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/13/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/09/2019
Number of Days to Update: 66

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/12/2019
Date Made Active in Reports: 08/15/2019
Number of Days to Update: 64

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/12/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 06/17/2019
Date Data Arrived at EDR: 06/18/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 65

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/17/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 04/27/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 34

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 07/11/2018
Date Made Active in Reports: 09/13/2018
Number of Days to Update: 64

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/12/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/19/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing
In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/12/2019
Date Made Active in Reports: 08/15/2019
Number of Days to Update: 64

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/12/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 65

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/11/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/10/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 06/20/2019
Number of Days to Update: 70

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 06/27/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 26

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 27

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/24/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 05/17/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/22/2019
Date Data Arrived at EDR: 05/23/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 56

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/26/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 02/20/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 05/30/2019
Number of Days to Update: 29

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/25/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 06/05/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 47

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/10/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 19

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 08/19/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/24/2019
Date Data Arrived at EDR: 04/25/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 63

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/06/2019
Date Data Arrived at EDR: 05/07/2019
Date Made Active in Reports: 07/16/2019
Number of Days to Update: 70

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/16/2019
Date Data Arrived at EDR: 05/17/2019
Date Made Active in Reports: 05/30/2019
Number of Days to Update: 13

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 05/30/2019
Date Data Arrived at EDR: 05/31/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 53

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/15/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/17/2019
Date Data Arrived at EDR: 01/18/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 46

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/17/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 05/13/2019
Date Data Arrived at EDR: 05/16/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 63

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/15/2019
Date Data Arrived at EDR: 04/16/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 66

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/17/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/12/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 07/15/2019
Date Data Arrived at EDR: 07/17/2019
Date Made Active in Reports: 08/05/2019
Number of Days to Update: 19

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/17/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/12/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/04/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/28/2019
Date Data Arrived at EDR: 05/30/2019
Date Made Active in Reports: 08/05/2019
Number of Days to Update: 67

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 05/30/2019
Date Made Active in Reports: 07/22/2019
Number of Days to Update: 53

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 05/23/2019
Date Data Arrived at EDR: 05/30/2019
Date Made Active in Reports: 07/22/2019
Number of Days to Update: 53

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 02/05/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 26

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 06/28/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 05/30/2019
Number of Days to Update: 9

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/25/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/09/2019
Date Made Active in Reports: 05/30/2019
Number of Days to Update: 21

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/09/2019
Date Made Active in Reports: 05/30/2019
Number of Days to Update: 21

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 04/02/2019
Date Data Arrived at EDR: 05/07/2019
Date Made Active in Reports: 07/16/2019
Number of Days to Update: 70

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/12/2019
Number of Days to Update: 69

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/12/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 18

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/17/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/12/2019
Date Made Active in Reports: 06/20/2019
Number of Days to Update: 69

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/17/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/06/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 55

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/28/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/06/2019
Date Data Arrived at EDR: 04/02/2019
Date Made Active in Reports: 06/20/2019
Number of Days to Update: 79

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/28/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 48

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 07/16/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 05/31/2019
Date Data Arrived at EDR: 05/31/2019
Date Made Active in Reports: 07/22/2019
Number of Days to Update: 52

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 65

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing
A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 04/24/2019
Date Data Arrived at EDR: 04/25/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 63
Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/05/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 38
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/17/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 08/06/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/15/2019
Number of Days to Update: 1

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 05/16/2019
Date Data Arrived at EDR: 05/23/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 56

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/19/2019
Date Data Arrived at EDR: 05/23/2019
Date Made Active in Reports: 07/22/2019
Number of Days to Update: 60
Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90
Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51
Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 47
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 06/18/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 29

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/19/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 19

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/19/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/15/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 49

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 04/24/2019
Date Data Arrived at EDR: 04/25/2019
Date Made Active in Reports: 06/28/2019
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 05/09/2019
Date Data Arrived at EDR: 05/10/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 68

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/31/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/26/2019
Date Data Arrived at EDR: 04/25/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 63

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/22/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/26/2019
Date Data Arrived at EDR: 04/25/2019
Date Made Active in Reports: 05/30/2019
Number of Days to Update: 35
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/22/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/12/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 42
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/12/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 06/26/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 07/31/2019
Number of Days to Update: 33
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 05/03/2019
Date Data Arrived at EDR: 05/07/2019
Date Made Active in Reports: 07/16/2019
Number of Days to Update: 70
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 07/25/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/14/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 08/05/2019
Number of Days to Update: 83
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 07/29/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/27/2018
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/15/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/16/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/06/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

WOODLAND PARK PROPERTIES
2032 EUCLID AVENUE
EAST PALO ALTO, CA 94303

TARGET PROPERTY COORDINATES

Latitude (North):	37.461101 - 37° 27' 39.96''
Longitude (West):	122.144105 - 122° 8' 38.78''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	575694.4
UTM Y (Meters):	4146165.2
Elevation:	28 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640620 PALO ALTO, CA
Version Date:	2012
East Map:	5641106 MOUNTAIN VIEW, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

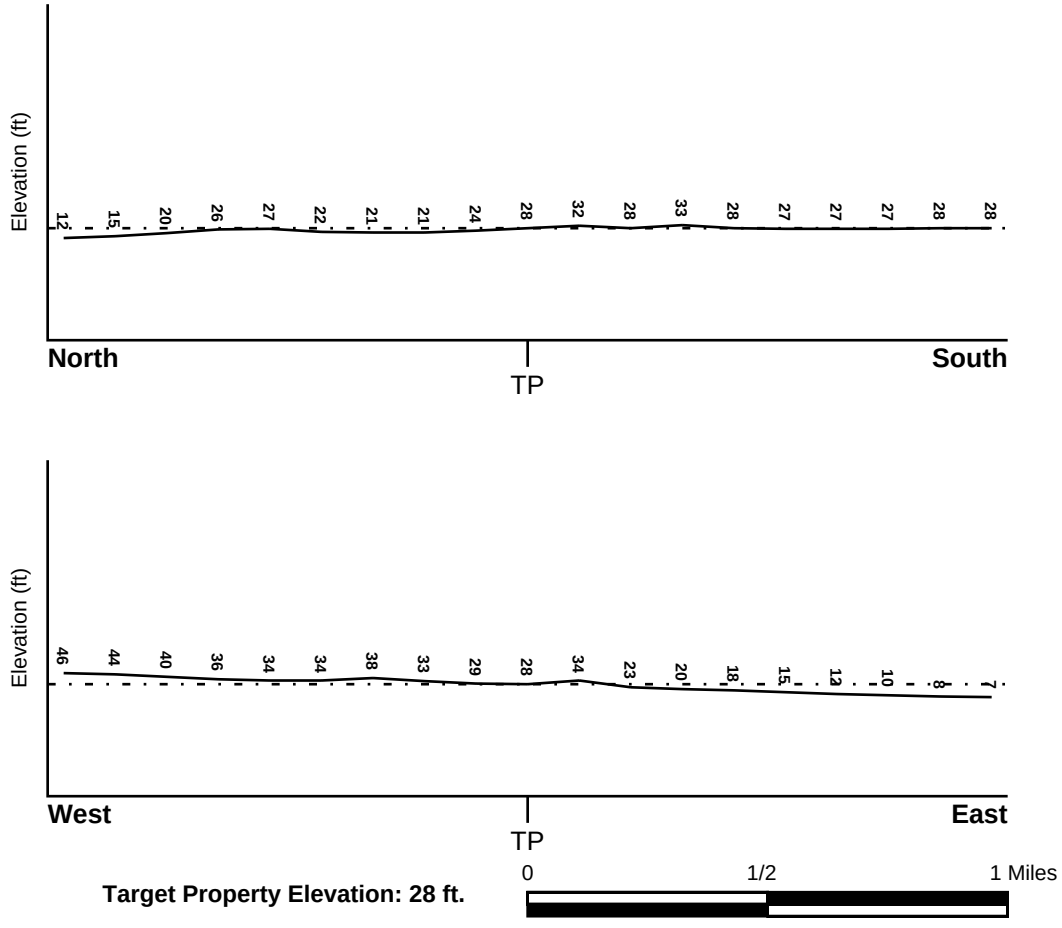
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 28 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06081C0309E	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06081C0306E	FEMA FIRM Flood data
06081C0307E	FEMA FIRM Flood data
06081C0308E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
PALO ALTO	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/8 - 1/4 Mile ESE	NE
2	1/8 - 1/4 Mile SSE	NE
B9	1/2 - 1 Mile NNE	N
D22	1/2 - 1 Mile NNE	ENE
D23	1/2 - 1 Mile NNE	ENE
24	1/2 - 1 Mile WNW	Not Reported

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
E25	1/2 - 1 Mile West	NE
E26	1/2 - 1 Mile West	Not Reported
27	1/2 - 1 Mile ESE	NE
28	1/2 - 1 Mile NNW	Not Reported
1G	1/2 - 1 Mile NNW	Not Reported
2G	1/2 - 1 Mile NNE	ENE
3G	1/2 - 1 Mile NNE	ENE
4G	1/2 - 1 Mile NNE	N
5G	1/2 - 1 Mile WNW	Not Reported
6G	1/2 - 1 Mile West	NE
7G	1/2 - 1 Mile West	Not Reported
8G	1/8 - 1/4 Mile ESE	NE
9G	1/8 - 1/4 Mile SSE	NE
10G	1/2 - 1 Mile ESE	NE

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

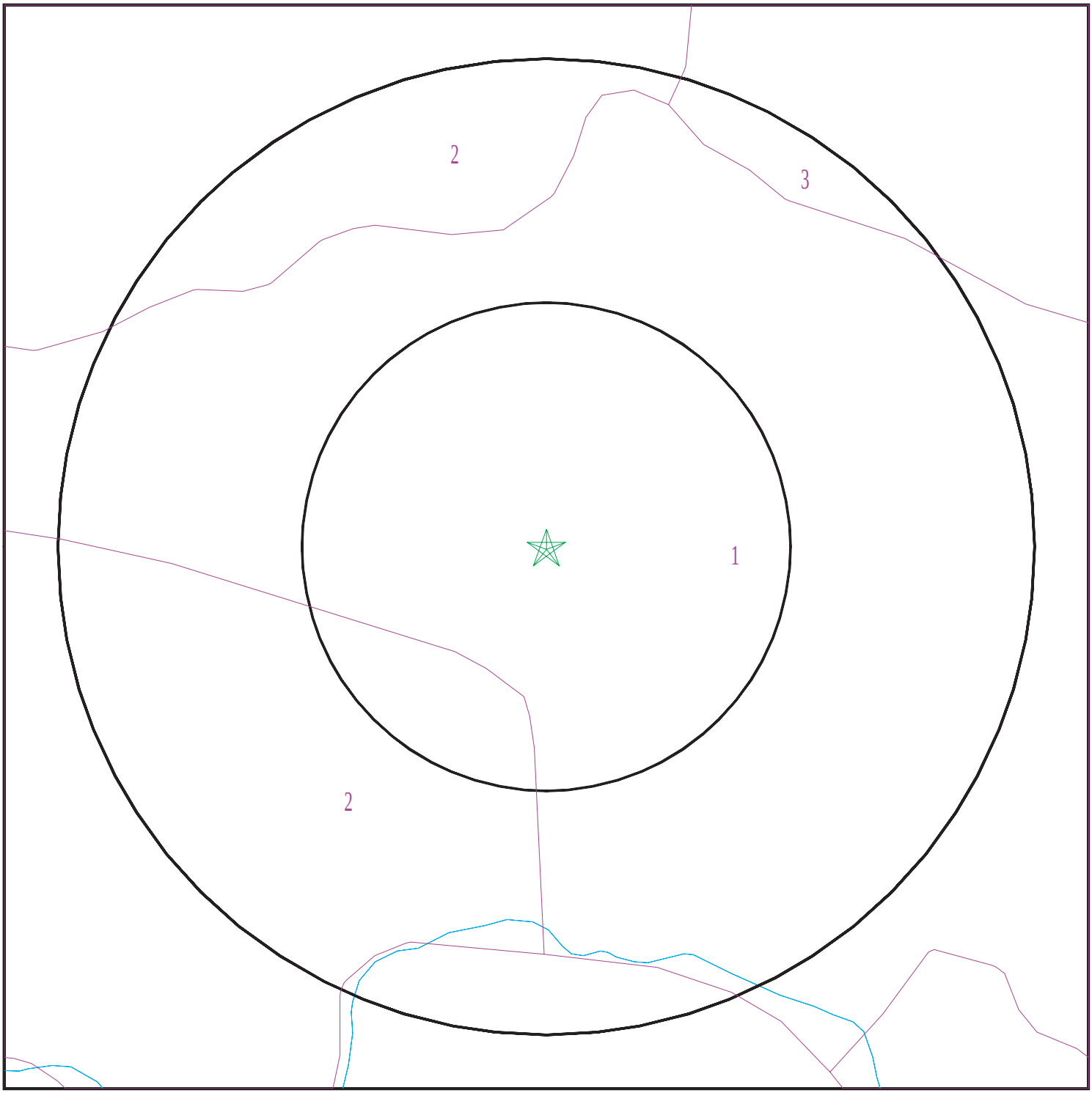
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5782182.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Woodland Park Properties	CLIENT:	WSP USA Inc.
ADDRESS:	2032 Euclid Avenue East Palo Alto CA 94303	CONTACT:	Richard Freudenberger
LAT/LONG:	37.461101 / 122.144105	INQUIRY #:	5782182.2s
		DATE:	September 09, 2019 7:06 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches		Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 2

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches		Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 3

Soil Component Name: Botella

Soil Surface Texture: clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	16 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	USGS40000183299	1/4 - 1/2 Mile SSW
4	USGS40000183311	1/4 - 1/2 Mile WSW
B10	USGS40000183365	1/2 - 1 Mile NNE
11	USGS40000183284	1/2 - 1 Mile WSW
C12	USGS40000183250	1/2 - 1 Mile South
13	USGS40000183384	1/2 - 1 Mile North
C14	USGS40000183245	1/2 - 1 Mile South
C15	USGS40000183244	1/2 - 1 Mile South
C16	USGS40000183247	1/2 - 1 Mile South
C17	USGS40000183246	1/2 - 1 Mile South

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

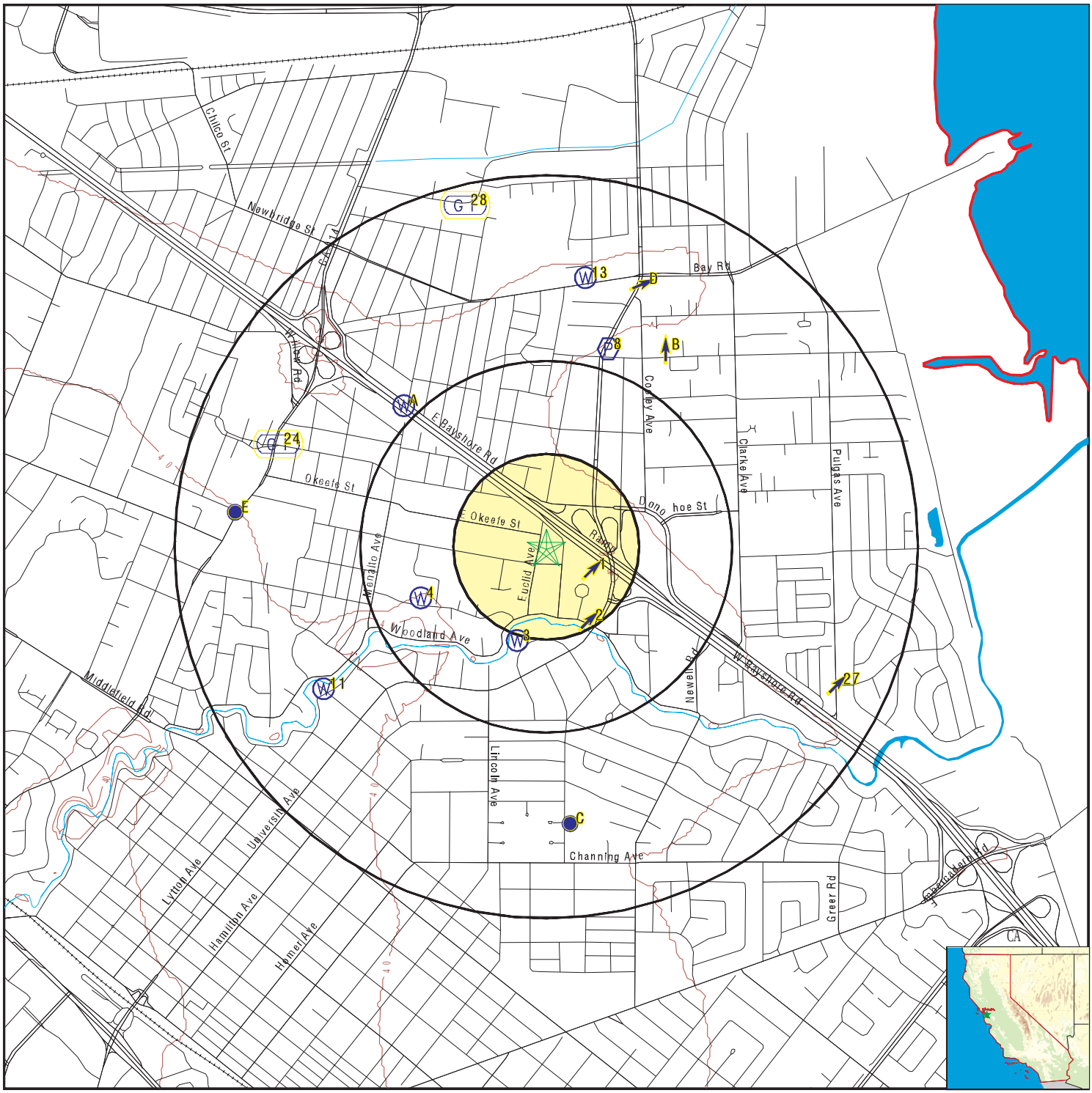
MAP ID	WELL ID	LOCATION FROM TP
8	CA4310009	1/2 - 1 Mile NNE

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A5	5875	1/2 - 1 Mile NW
A6	5876	1/2 - 1 Mile NW
A7	5877	1/2 - 1 Mile NW
C18	CADWR8000034662	1/2 - 1 Mile South
C19	CADWR8000034659	1/2 - 1 Mile South
C20	CADWR8000034660	1/2 - 1 Mile South
C21	CADWR8000034661	1/2 - 1 Mile South

PHYSICAL SETTING SOURCE MAP - 5782182.2s



0 1/4 1/2 1 Miles

- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Woodland Park Properties	CLIENT:	WSP USA Inc.
ADDRESS:	2032 Euclid Avenue East Palo Alto CA 94303	CONTACT:	Richard Freudenberger
		INQUIRY #:	5782182.2s
LAT/LONG:	37.461101 / 122.144105	DATE:	September 09, 2019 7:06 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **ESE** **1/8 - 1/4 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890003 NE 8.45 11.01 Not Reported 06/08/1998	**AQUIFLOW**	**50010**
2 **SSE** **1/8 - 1/4 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890005 NE 26.36 27.41 Not Reported 11/05/1992	**AQUIFLOW**	**50006**

3
SSW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000183299**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36F002M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19921111	Well Depth:	260
Well Depth Units:	ft	Well Hole Depth:	260
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1992-11-11
Feet below surface:	60	Feet to sea level:	Not Reported
Note:	Not Reported		

4
WSW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000183311**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36D001M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19660706	Well Depth:	550
Well Depth Units:	ft	Well Hole Depth:	608
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A5
NW
1/2 - 1 Mile
Higher

CA WELLS **5875**

Seq:	5875	Prim sta c:	05S/03W-25M03 M
Frds no:	4110020001	County:	41
District:	04	User id:	ENG
System no:	4110020	Water type:	G
Source nam:	WELL 01 - INACTIVE	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	372800.0	Longitude:	1220900.0
Precision:	8	Status:	IU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	4110020	System nam:	Palo Alto Park Mut Wtr Co
Hqname:	Not Reported	Address:	2190 Addison Ave
City:	East Palo Alto	State:	CA
Zip:	94303	Zip ext:	Not Reported
Pop serv:	3000	Connection:	665
Area serve:	PALO ALTO EAST		

A6
NW
1/2 - 1 Mile
Higher

CA WELLS **5876**

Seq:	5876	Prim sta c:	05S/03W-25M04 M
Frds no:	4110020004	County:	41
District:	04	User id:	ENG
System no:	4110020	Water type:	G
Source nam:	WELL 05	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	372800.0	Longitude:	1220900.0
Precision:	4	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	4110020	System nam:	Palo Alto Park Mut Wtr Co
Hqname:	Not Reported	Address:	2190 Addison Ave
City:	East Palo Alto	State:	CA
Zip:	94303	Zip ext:	Not Reported
Pop serv:	3000	Connection:	665
Area serve:	PALO ALTO EAST		

Sample date:	22-AUG-17	Finding:	226.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		

Sample date:	22-AUG-17	Finding:	444.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		

Sample date:	22-AUG-17	Finding:	21.
Chemical:	IRON	Report units:	UG/L
Dlr:	100.		

Sample date:	22-AUG-17	Finding:	47.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	22-AUG-17	Finding:	75.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	93.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	16.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	51.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	7.71
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	226.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	0.486
Chemical:	TURBIDITY, FIELD	Report units:	NTU
Dlr:	0.1		
Sample date:	22-AUG-17	Finding:	0.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-16	Finding:	745.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	0.77
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-16	Finding:	183.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	0.24
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	11-OCT-16	Finding:	73.
Chemical:	ALUMINUM	Report units:	UG/L
Dlr:	50.		
Sample date:	08-SEP-15	Finding:	1.27
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	7.57
Chemical:	PH, LABORATORY	Report units:	Not Reported

Dlr:	0.		
Sample date:	08-SEP-15	Finding:	230.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	230.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	52.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	17.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	97.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	95.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	50.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	08-SEP-15	Finding:	424.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.557
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-SEP-15	Finding:	1.2
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	1.59
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.26
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.664
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		

Sample date:	08-SEP-15	Finding:	1.11
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.25
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	801.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	7.76
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.2
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.8
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	1.5
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	1.76
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	03-SEP-14	Finding:	4.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-SEP-14	Finding:	463.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.22
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	03-SEP-14	Finding:	47.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	03-SEP-14	Finding:	100.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	85.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	15.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	49.
Chemical:	CALCIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	03-SEP-14	Finding:	183.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	230.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	678.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	1.38
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	230.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	0.45
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	5.1
Chemical:	COLOR	Report units:	UNITS
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	508.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	2.
Chemical:	CYANIDE	Report units:	UG/L
Dlr:	100.		
Sample date:	19-MAY-14	Finding:	0.21
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	48.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	19-MAY-14	Finding:	100.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	92.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	16.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	49.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	19-MAY-14	Finding:	186.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	228.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	228.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	7.62
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	820.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	4.6
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JUL-13	Finding:	6.4
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JUL-13	Finding:	0.56
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.44
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.3
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	2.e-002
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	1.29
Chemical:	RADIUM 228	Report units:	PCI/L
Dlr:	1.		
Sample date:	05-JUN-12	Finding:	6.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-JUN-12	Finding:	0.194
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	05-JUN-12	Finding:	0.91
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	0.3
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L

Dlr:	0.		
Sample date:	05-JUN-12	Finding:	1.9
Chemical:	RADIUM 228	Report units:	PCI/L
Dlr:	1.		

A7
NW
1/2 - 1 Mile
Higher

CA WELLS 5877

Seq:	5877	Prim sta c:	05S/03W-25M05 M
Frds no:	4110020005	County:	41
District:	04	User id:	ENG
System no:	4110020	Water type:	G
Source nam:	WELL 06	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	372800.0	Longitude:	1220900.0
Precision:	4	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	4110020	System nam:	Palo Alto Park Mut Wtr Co
Hqname:	Not Reported	Address:	2190 Addison Ave
City:	East Palo Alto	State:	CA
Zip:	94303	Zip ext:	Not Reported
Pop serv:	3000	Connection:	665
Area serve:	PALO ALTO EAST		
Sample date:	22-AUG-17	Finding:	0.92
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-AUG-17	Finding:	0.92
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-AUG-17	Finding:	520.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	22-AUG-17	Finding:	0.229
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	11-OCT-16	Finding:	801.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	7.67
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	236.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	236.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		

Sample date:	11-OCT-16	Finding:	0.99
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-OCT-16	Finding:	207.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	54.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	18.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	100.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	91.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	11-OCT-16	Finding:	52.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	11-OCT-16	Finding:	0.25
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	08-SEP-15	Finding:	0.316
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.27
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	0.742
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.09
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.59
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	3.22
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	08-SEP-15	Finding:	1.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	0.543
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU

Dlr:	0.1		
Sample date:	08-SEP-15	Finding:	442.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-15	Finding:	1.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	1.03
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	0.21
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	03-SEP-14	Finding:	181.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	03-SEP-14	Finding:	5.1
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-MAY-14	Finding:	206.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	0.347
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	4.3
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-MAY-14	Finding:	0.19
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	19-MAY-14	Finding:	53.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	19-MAY-14	Finding:	91.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	96.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	18.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	53.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	19-MAY-14	Finding:	231.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	231.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	804.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	19-MAY-14	Finding:	4.3
Chemical:	COLOR	Report units:	UNITS
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	2.e-002
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.44
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.85
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	0.26
Chemical:	RADIUM 228 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	4.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JUL-13	Finding:	1.94
Chemical:	RADIUM 228	Report units:	PCI/L
Dlr:	1.		
Sample date:	05-JUN-12	Finding:	52.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	05-JUN-12	Finding:	439.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	4.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-JUN-12	Finding:	0.124
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	05-JUN-12	Finding:	79.
Chemical:	CHLORIDE	Report units:	MG/L

Dlr:	0.		
Sample date:	05-JUN-12	Finding:	2.2
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	99.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	17.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	60.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	234.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	511.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	234.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	05-JUN-12	Finding:	7.71
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		

8
NNE
1/2 - 1 Mile
Lower

FRDS PWS **CA4310009**

Epa region:	09	State:	CA
Pwsid:	CA4310009	Pwsname:	CITY OF PALO ALTO
Cityserved:	Not Reported	Stateserved:	CA
Zipserved:	Not Reported	Fipscounty:	06085
Status:	Active	Retpopsrvd:	62000
Pwssvcconn:	19344	Psource longname:	Purch_surface_water
Pwstype:	CWS	Owner:	Local_Govt
Contact:	GHAFFARI, JAVAD	Contactorgname:	GHAFFARI, JAVAD
Contactphone:	650-496-6932	Contactaddress1:	P.O. BOX 10250
Contactaddress2:	250 HAMILTON AVE.	Contactcity:	PALO ALTO
Contactstate:	CA	Contactzip:	94303
Pwsactivitycode:	A		
Pwsid:	CA4310009	Facid:	7249
Facname:	HALE - TREATED CL2	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
Pwsid:	CA4310009	Facid:	7250
Facname:	PEERS - TREATED CL2	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pwsid:	CA4310009	Facid:	7252
Facname:	RINCONADA - TREATED CL2	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

Pwsid:	CA4310009	Facid:	800
Facname:	HALE - TREATED - INACTIVE	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

Pwsid:	CA4310009	Facid:	801
Facname:	PEERS - TREATED - INACTIVE		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		

Pwsid:	CA4310009	Facid:	802
Facname:	RINCONADA - TREATED - INACTIVE		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	disinfection	Trtprocess:	hypochlorination, post
Factypecode:	TP		

Pwsid:	CA4310009	Facid:	803
Facname:	SAND HILL ROAD STATION - TREATED		
Factype:	Treatment_plant	Facactivitycode:	A
Trtobjective:	other	Trtprocess:	fluoridation
Factypecode:	TP		

PWS ID:	CA4310009	PWS name:	CITY OF PALO ALTO
Address:	Not Reported	Care of:	Not Reported
City:	PALO ALTO	State:	CA
Zip:	94303	Owner:	CITY OF PALO ALTO
Source code:	Purchases surface water	Population:	57000

PWS ID:	CA4310009	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	County:	SANTA CLARA
Source:	Purchases surface water	Treatment Objective:	Z
Process:	FLUORIDATION	Population:	58000

PWS ID:	CA4310009	Activity status:	Active
Date system activated:	7706	Date system deactivated:	Not Reported
Retail population:	00056000	System name:	CITY OF PALO ALTO
System address:	Not Reported	System address:	250 HAMILTON AVE
System city:	PALO ALTO	System state:	CA
System zip:	94303		

County FIPS:	Not Reported	City served:	PALO ALTO

County FIPS:	085	City served:	PALO ALTO

Population served:	50,001 - 75,000 Persons	Treatment:	Mixed (treated and untreated)

Latitude:	372808	Longitude:	1220824

Violation id:	1017003	Orig code:	S
State:	CA	Violation Year:	2010
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported

State mcl:	Not Reported	Cmp bdt:	07/01/2010
Cmp edt:	07/31/2010		
Violation id:	1217004	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	05/01/2012
Cmp edt:	05/31/2012		
System Name:	CITY OF PALO ALTO	Violation Type:	01
Contaminant:	0100	Compliance Begin:	1995-03-01
Compliance End:	1995-03-31	Violation ID:	9505002
Enforcement Date:	1995-05-03	Enforcement Action:	SFL
Violation ID:	1017003	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	09/07/2010
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	1217004	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	06/22/2012
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	92V0001	Orig Code:	F
Enforcemnt FY:	2000	Enforcement Action:	03/01/2000
Enforcement Detail:	Fed Compliance achieved	Enforcement Category:	Resolving

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B9
NNE
1/2 - 1 Mile
Lower

AQUIFLOW **64278**

Site ID:	890011
Groundwater Flow:	N
Shallow Water Depth:	8.5
Deep Water Depth:	9
Average Water Depth:	Not Reported
Date:	12/11/1995

B10
NNE
1/2 - 1 Mile
Lower

FED USGS **USGS40000183365**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W25G001M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19580424	Well Depth:	54
Well Depth Units:	ft	Well Hole Depth:	54
Well Hole Depth Units:	ft		
Ground water levels,Number of Measurements:	1	Level reading date:	1997-05-01
Feet below surface:	9.15	Feet to sea level:	Not Reported
Note:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

11
WSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000183284**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W35G010M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported		
Aquifer Type:	Mixed (confined and unconfined multiple aquifers)		
Construction Date:	19551212	Well Depth:	840
Well Depth Units:	ft	Well Hole Depth:	935
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1994-05-11
Feet below surface:	34.27	Feet to sea level:	Not Reported
Note:	Not Reported		

C12
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000183250**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36L010M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	195408	Well Depth:	65
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1997-04-28
Feet below surface:	9.45	Feet to sea level:	Not Reported
Note:	Not Reported		

13
North
1/2 - 1 Mile
Lower

FED USGS **USGS40000183384**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W25F001M	Type:	Well
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported

Construction Date:	19791229	Well Depth:	334
Well Depth Units:	ft	Well Hole Depth:	351
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1997-05-02
Feet below surface:	9.89	Feet to sea level:	Not Reported
Note:	Not Reported		

C14
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000183245**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36P003M	Type:	Well: Multiple wells
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined multiple aquifer
Construction Date:	20030204	Well Depth:	740
Well Depth Units:	ft	Well Hole Depth:	932
Well Hole Depth Units:	ft		

C15
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000183244**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36P002M	Type:	Well: Multiple wells
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined multiple aquifer
Construction Date:	20030204	Well Depth:	930
Well Depth Units:	ft	Well Hole Depth:	932
Well Hole Depth Units:	ft		

C16
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000183247**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36POO5M	Type:	Well: Multiple wells
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined multiple aquifer
Construction Date:	20030204	Well Depth:	200

Well Depth Units:	ft	Well Hole Depth:	932
Well Hole Depth Units:	ft		

C17
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000183246**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	005S003W36P004M	Type:	Well: Multiple wells
Description:	Not Reported	HUC:	18050003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Confined multiple aquifer
Construction Date:	20030204	Well Depth:	560
Well Depth Units:	ft	Well Hole Depth:	932
Well Hole Depth Units:	ft		

C18
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000034662**

State Well #:	05S03W36P005M	Station ID:	47594
Well Name:	05S03W36P005	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	200	Basin Name:	Santa Clara
Well Completion Rpt #:	795749		

C19
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000034659**

State Well #:	05S03W36P002M	Station ID:	47591
Well Name:	05S03W36P002	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	930	Basin Name:	Santa Clara
Well Completion Rpt #:	795746		

C20
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000034660**

State Well #:	05S03W36P003M	Station ID:	47592
Well Name:	05S03W36P003	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	740	Basin Name:	Santa Clara
Well Completion Rpt #:	795747		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation				Database	EDR ID Number
C21 **South** **1/2 - 1 Mile** **Lower**				**CA WELLS**	**CADWR8000034661**
State Well #:	05S03W36P004M	Station ID:	47593		
Well Name:	05S03W36P004	Well Use:	Observation		
Well Type:	Part of a nested/multi-completion well				
Well Depth:	560	Basin Name:	Santa Clara		
Well Completion Rpt #:	795748				

D22 **NNE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890009 ENE Not Reported Not Reported 10 07/17/1997	**AQUIFLOW**	**64292**
D23 **NNE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	41-0666 ENE Not Reported Not Reported 10 07/17/1997	**AQUIFLOW**	**64293**
24 **WNW** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440016 Not Reported 24.63 25.3 Not Reported 02/16/1989	**AQUIFLOW**	**51116**
E25 **West** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440021 NE 28 29 Not Reported 01/15/1992	**AQUIFLOW**	**51136**
E26 **West** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440026 Not Reported 18.35 28.22 Not Reported 12/21/1993	**AQUIFLOW**	**51142**
27 **ESE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890015 NE 8 12 Not Reported 11/1998	**AQUIFLOW**	**50008**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
28 **NNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440044 Not Reported Not Reported Not Reported 12 10/26/1994	**AQUIFLOW**	**64490**
1G **NNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440044 Not Reported Not Reported Not Reported 12 10/26/1994	**AQUIFLOW**	**64490**
2G **NNE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890009 ENE Not Reported Not Reported 10 07/17/1997	**AQUIFLOW**	**64292**
3G **NNE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	41-0666 ENE Not Reported Not Reported 10 07/17/1997	**AQUIFLOW**	**64293**
4G **NNE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890011 N 8.5 9 Not Reported 12/11/1995	**AQUIFLOW**	**64278**
5G **WNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440016 Not Reported 24.63 25.3 Not Reported 02/16/1989	**AQUIFLOW**	**51116**
6G **West** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440021 NE 28 29 Not Reported 01/15/1992	**AQUIFLOW**	**51136**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
7G **West** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	440026 Not Reported 18.35 28.22 Not Reported 12/21/1993	**AQUIFLOW**	**51142**
8G **ESE** **1/8 - 1/4 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890003 NE 8.45 11.01 Not Reported 06/08/1998	**AQUIFLOW**	**50010**
9G **SSE** **1/8 - 1/4 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890005 NE 26.36 27.41 Not Reported 11/05/1992	**AQUIFLOW**	**50006**
10G **ESE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	890015 NE 8 12 Not Reported 11/1998	**AQUIFLOW**	**50008**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94303	22	0

Federal EPA Radon Zone for SAN MATEO County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 94303

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.300 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX

E HISTORICAL INFORMATION

Woodland Park Properties

2032 Euclid Avenue

East Palo Alto, CA 94303

Inquiry Number: 5782182.3

September 09, 2019

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

09/09/19

Site Name:

Woodland Park Properties
2032 Euclid Avenue
East Palo Alto, CA 94303
EDR Inquiry # 5782182.3

Client Name:

WSP USA Inc.
2025 Gateway Place
San Jose, CA 95110
Contact: Richard Freudenberger

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by WSP USA Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # F3FA-4985-BE09

PO # NA

Project NA

Maps Provided:

1968
1954

Sanborn® Library search results

Certification #: F3FA-4985-BE09

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

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Sanborn Sheet Key

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1968 Source Sheets

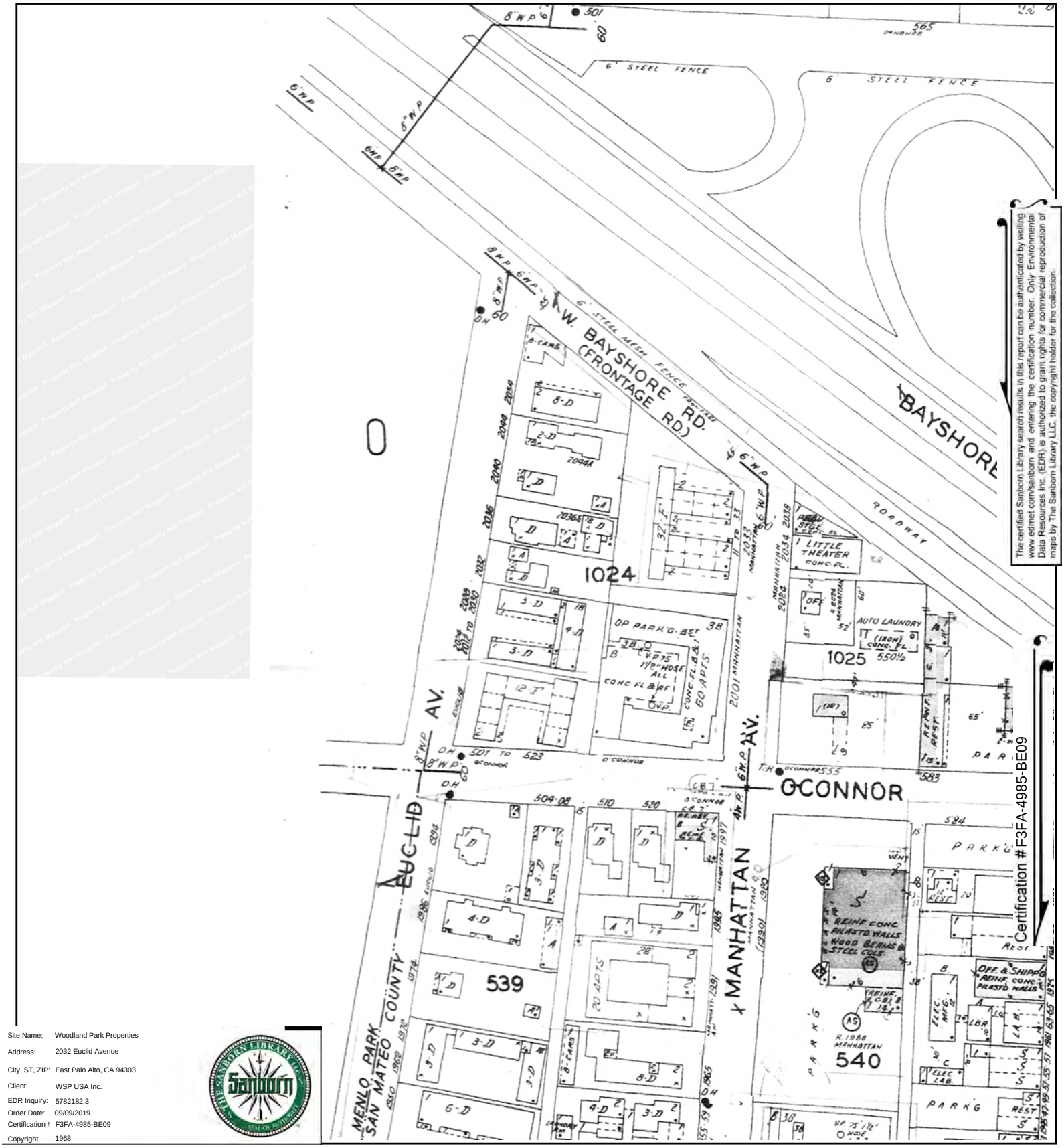


Volume 1, Sheet 21
1968

1954 Source Sheets



Volume 1, Sheet 21
1954



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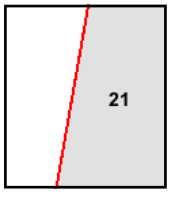
Site Name:	Woodland Park Properties
Address:	2032 Euclid Avenue
City, ST, ZIP:	East Palo Alto, CA 94303
Client:	WSP USA Inc.
EDR Inquiry:	5782182.3
Order Date:	09/09/2019
Certification #:	F3FA-4985-BE09
Copyright	1968

This Certified Sanborn Map combines the following sheets. Outlined areas indicate map sheets within the collection.

0 Feet 150 300 600

Volume 1, Sheet 21





N



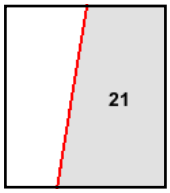
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Site Name:	Woodland Park Properties
Address:	2032 Euclid Avenue
City, ST, ZIP:	East Palo Alto, CA 94303
Client:	WSP USA Inc.
EDR Inquiry:	5782182.3
Order Date:	09/09/2019
Certification #	F3FA-4985-BE09
Copyright	1954

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

0 Feet 150 300 600





Volume 1, Sheet 21

N

Woodland Park Properties
2032 Euclid Avenue
East Palo Alto, CA 94303

Inquiry Number: 5782182.4
September 09, 2019

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

09/09/19

Site Name:	Client Name:
Woodland Park Properties	WSP USA Inc.
2032 Euclid Avenue	2025 Gateway Place
East Palo Alto, CA 94303	San Jose, CA 95110
EDR Inquiry # 5782182.4	Contact: Richard Freudenberger

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by WSP USA Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA

Project: NA

Coordinates:

Latitude:	37.461101 37° 27' 40" North
Longitude:	-122.144105 -122° 8' 39" West
UTM Zone:	Zone 10 North
UTM X Meters:	575692.59
UTM Y Meters:	4146369.67
Elevation:	28.00' above sea level

Maps Provided:

2012	1947
1997, 1999	1943
1994, 1995	1902
1973	1899
1968	1897
1961	
1953	
1948	

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Topo Sheet Key

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2012 Source Sheets



Mountain View
2012
7.5-minute, 24000

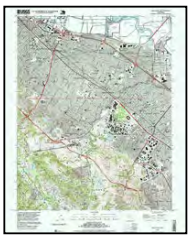


Palo Alto
2012
7.5-minute, 24000

1997, 1999 Source Sheets



Mountain View
1997
7.5-minute, 24000
Aerial Photo Revised 1997

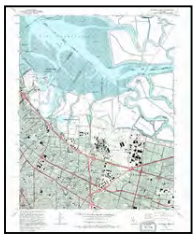


Palo Alto
1999
7.5-minute, 24000
Aerial Photo Revised 1999

1994, 1995 Source Sheets



Palo Alto
1994
7.5-minute, 24000
Aerial Photo Revised 1991

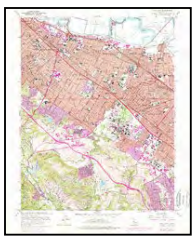


Mountain View
1995
7.5-minute, 24000
Aerial Photo Revised 1991

1973 Source Sheets



Mountain View
1973
7.5-minute, 24000
Aerial Photo Revised 1973



Palo Alto
1973
7.5-minute, 24000
Aerial Photo Revised 1973

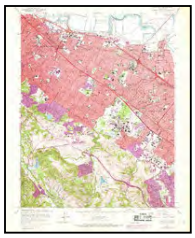
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1968 Source Sheets



Mountain View
1968
7.5-minute, 24000
Aerial Photo Revised 1968

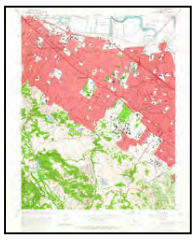


Palo Alto
1968
7.5-minute, 24000
Aerial Photo Revised 1968

1961 Source Sheets

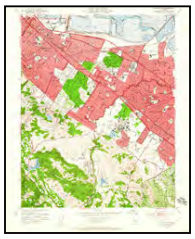


Mountain View
1961
7.5-minute, 24000
Aerial Photo Revised 1960



Palo Alto
1961
7.5-minute, 24000
Aerial Photo Revised 1960

1953 Source Sheets



Palo Alto
1953
7.5-minute, 24000
Aerial Photo Revised 1948



Mountain View
1953
7.5-minute, 24000
Aerial Photo Revised 1948

1948 Source Sheets



Palo Alto
1948
15-minute, 62500
Aerial Photo Revised 1948

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1947 Source Sheets



PALO ALTO
1947
15-minute, 50000

1943 Source Sheets



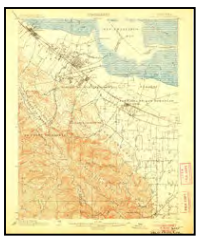
Palo Alto
1943
15-minute, 62500
Aerial Photo Revised 1940

1902 Source Sheets



Santa Cruz
1902
30-minute, 125000

1899 Source Sheets



Palo Alto
1899
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

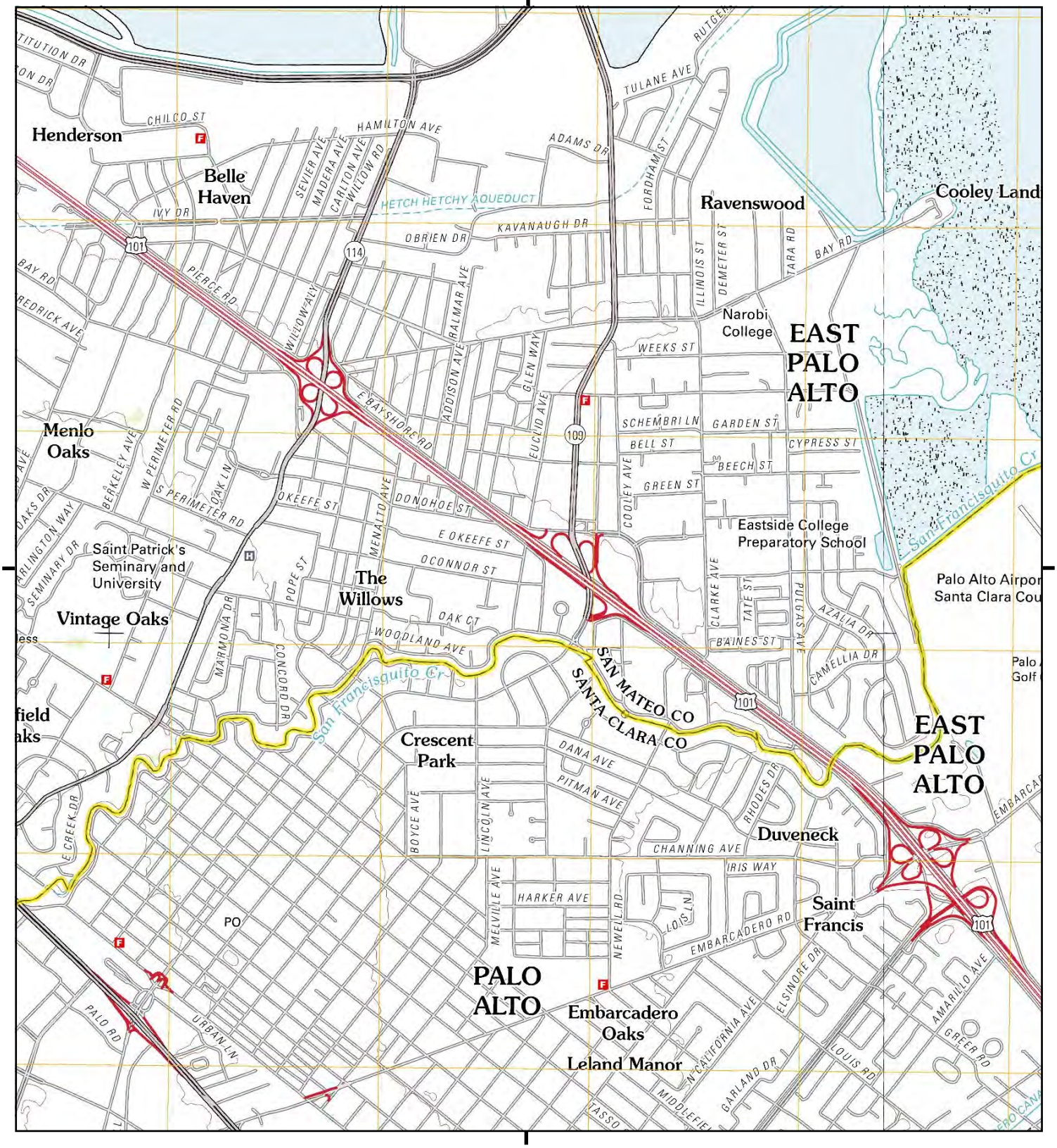
1897 Source Sheets



Palo Alto
1897
15-minute, 62500

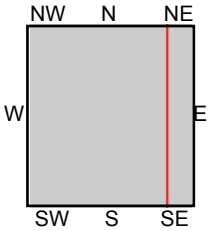
Historical Topo Map

2012



This report includes information from the following map sheet(s).

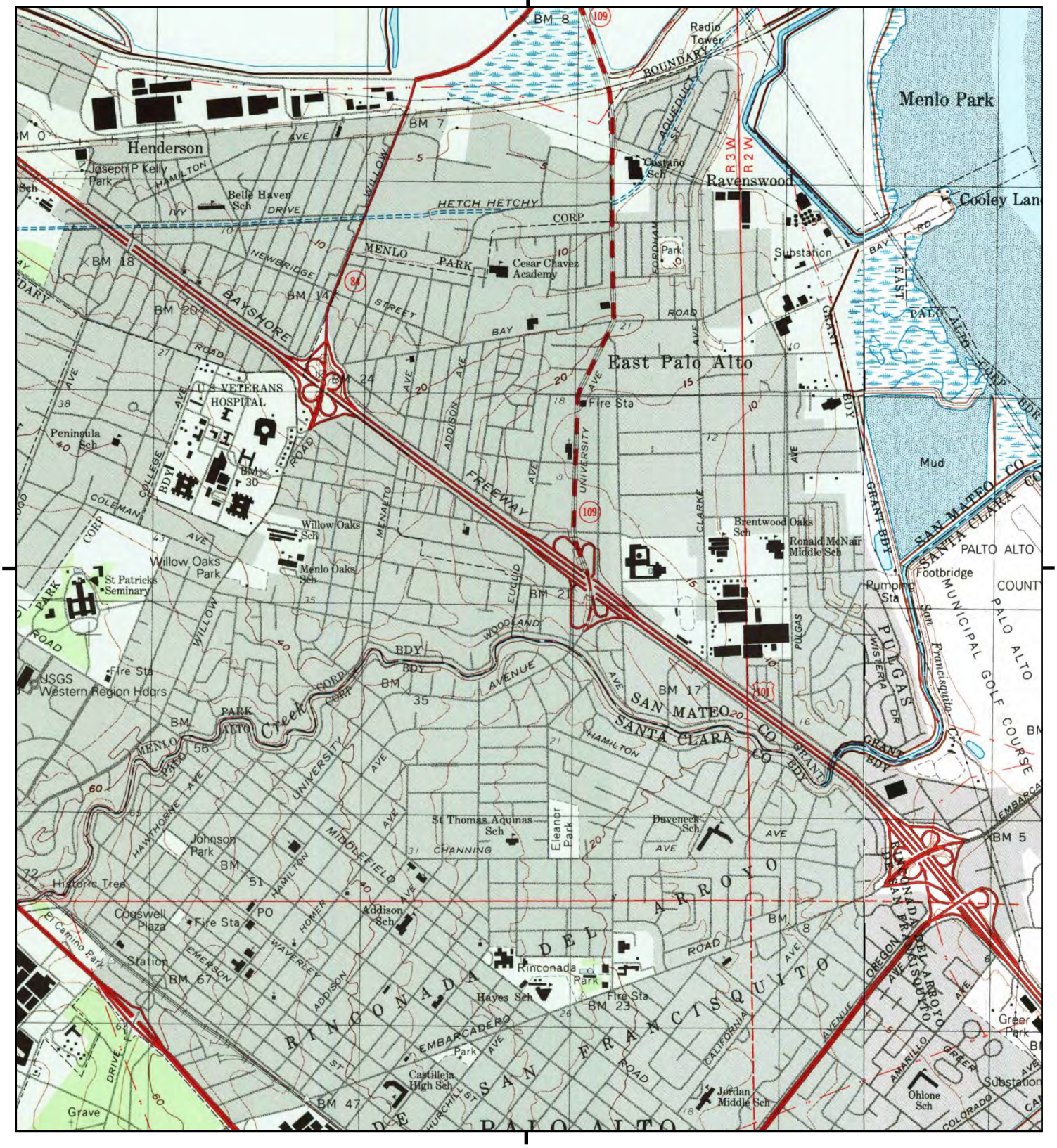
0 Miles 0.25 0.5 1 1.5



TP, Palo Alto, 2012, 7.5-minute
E, Mountain View, 2012, 7.5-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

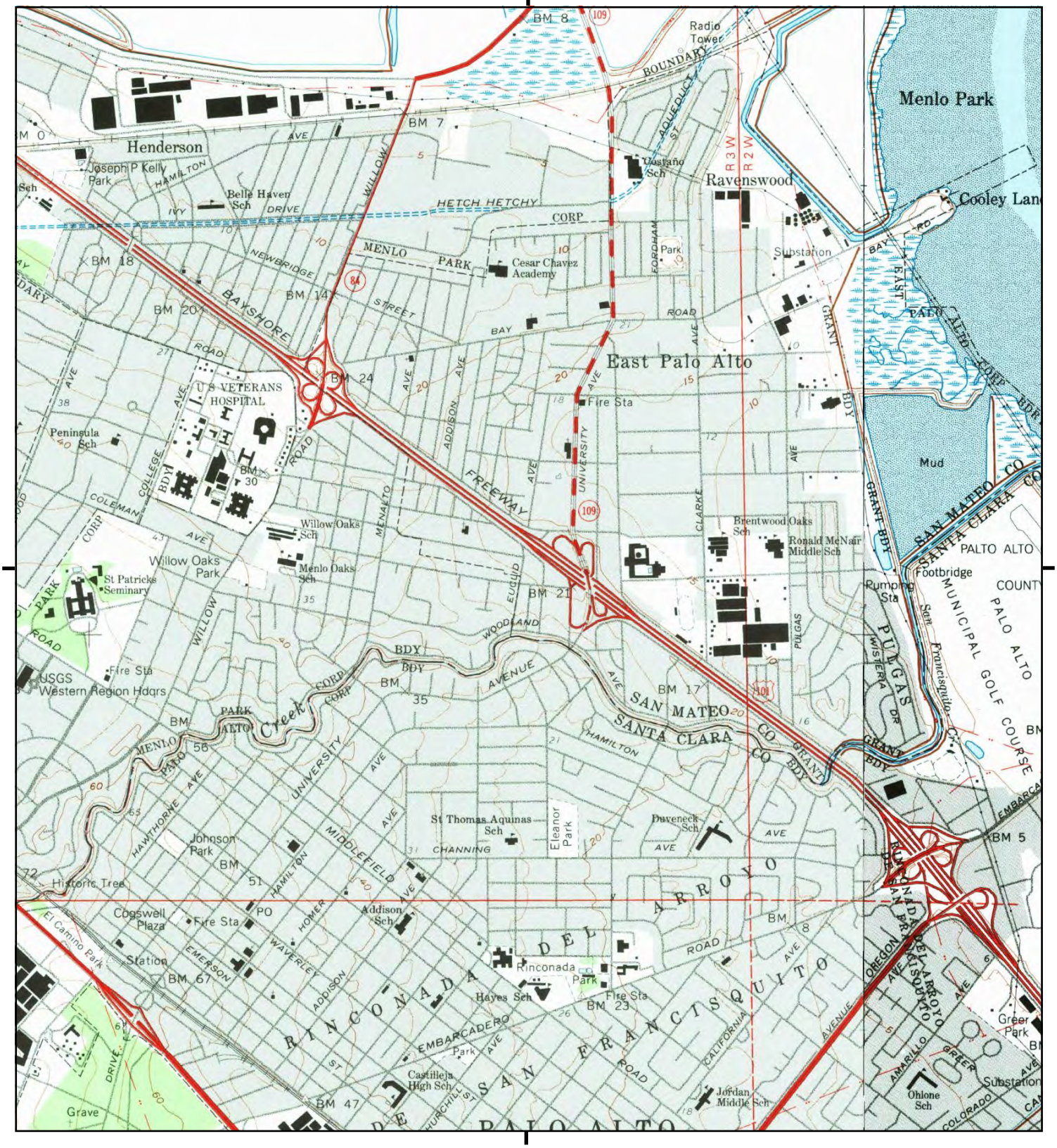
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1999, 7.5-minute
E, Mountain View, 1997, 7.5-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

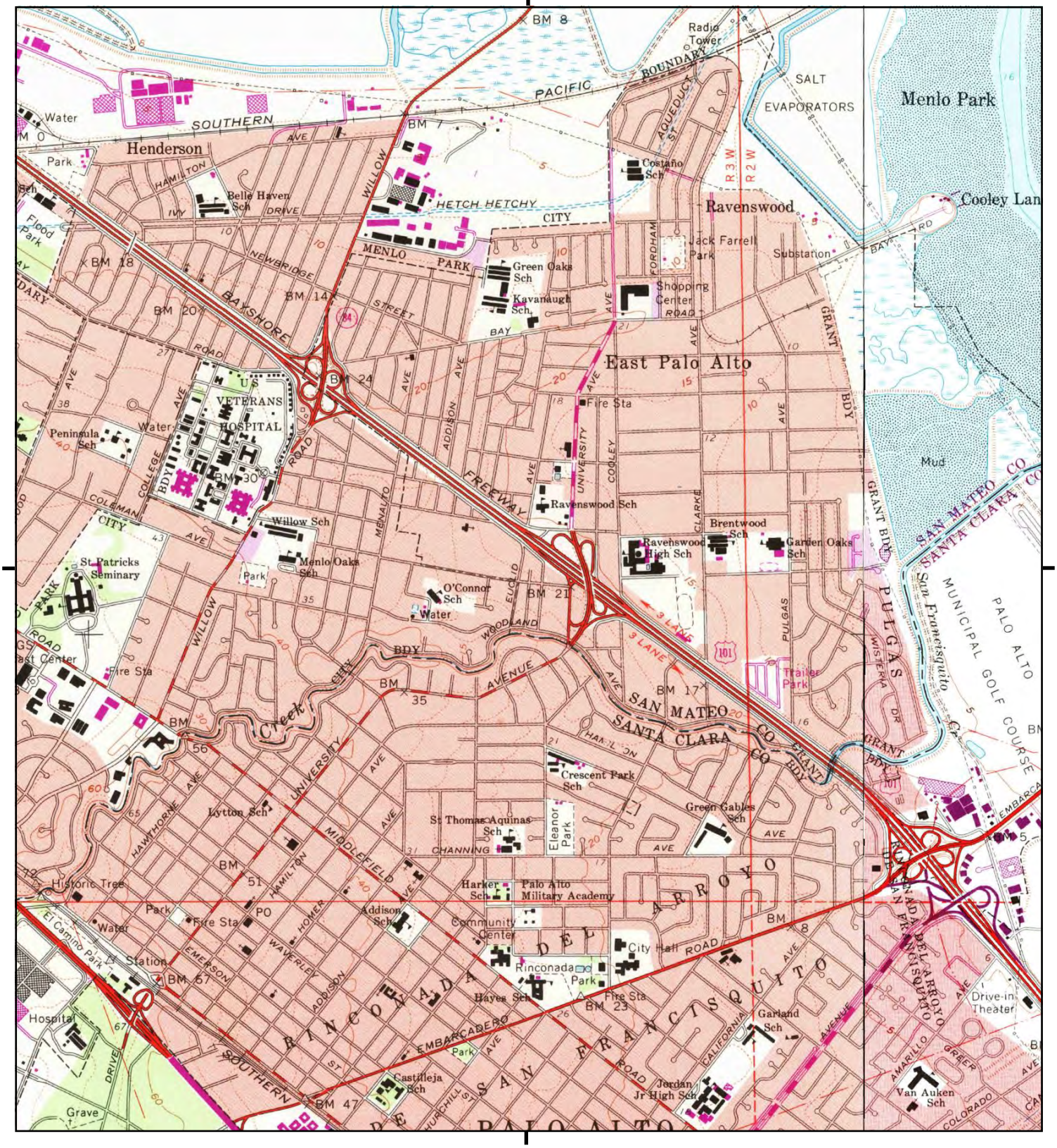
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1994, 7.5-minute
E, Mountain View, 1995, 7.5-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

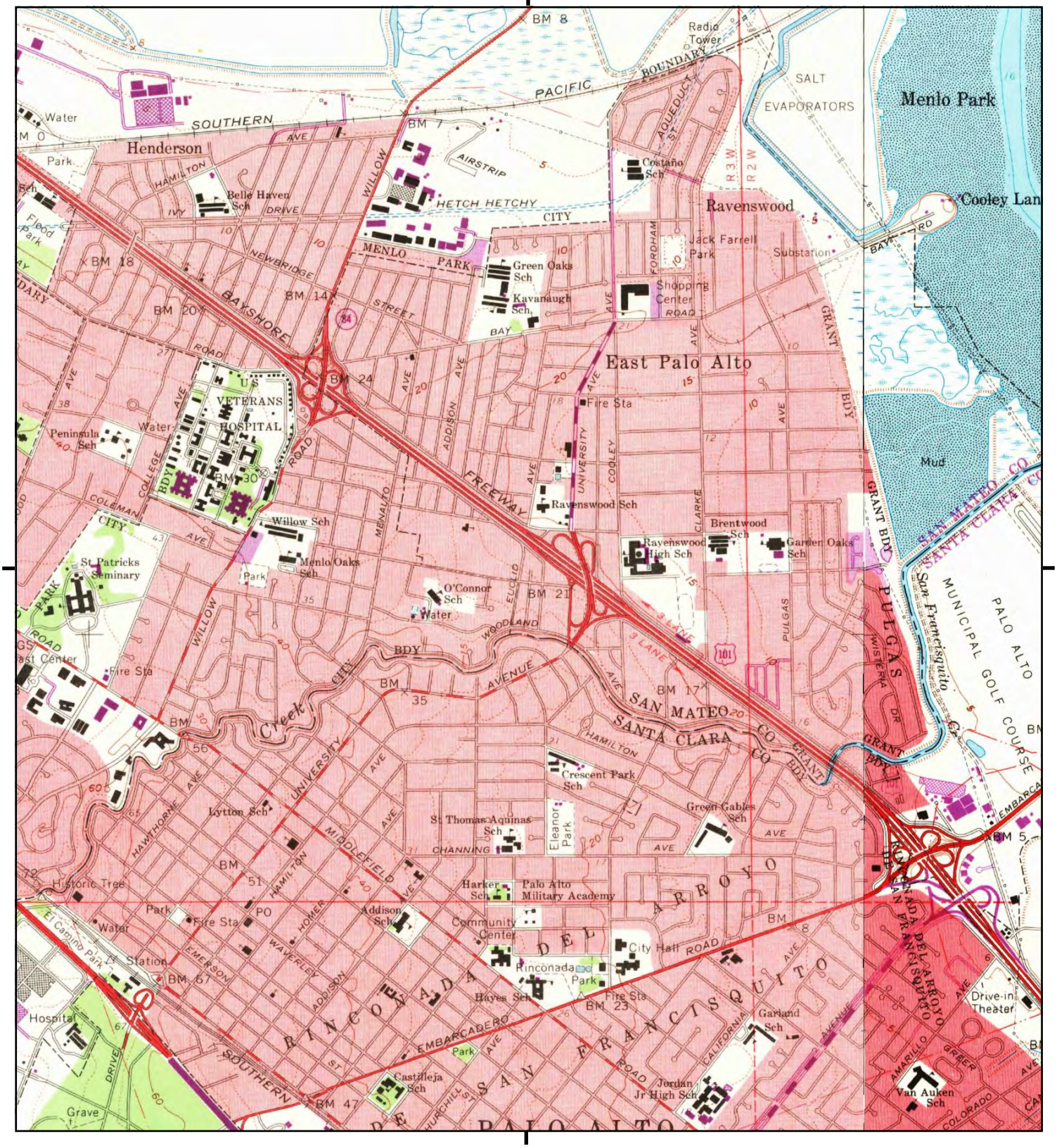
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1973, 7.5-minute
E, Mountain View, 1973, 7.5-minute

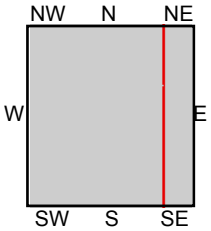
SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

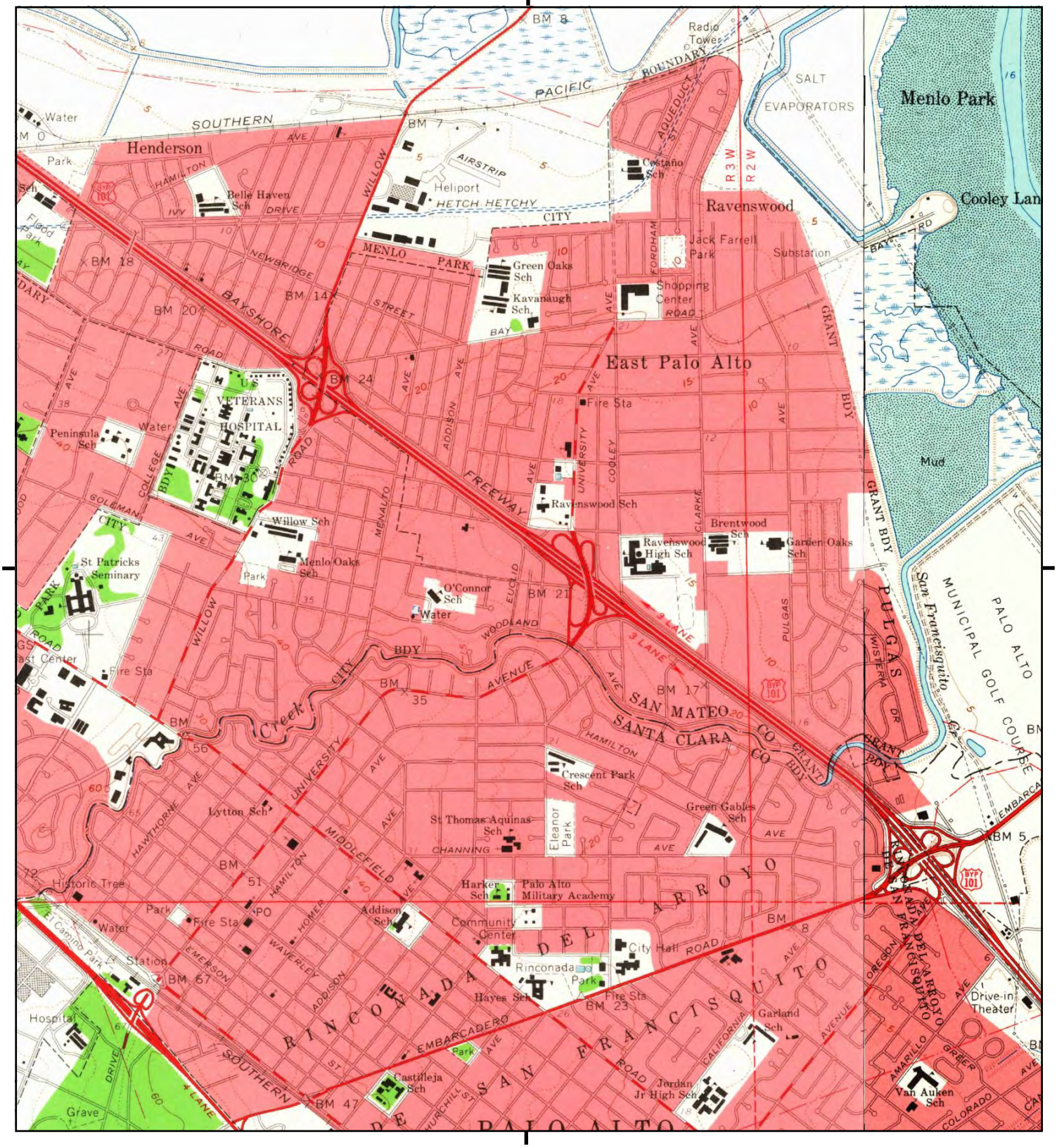
0 Miles 0.25 0.5 1 1.5



TP, Palo Alto, 1968, 7.5-minute
E, Mountain View, 1968, 7.5-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

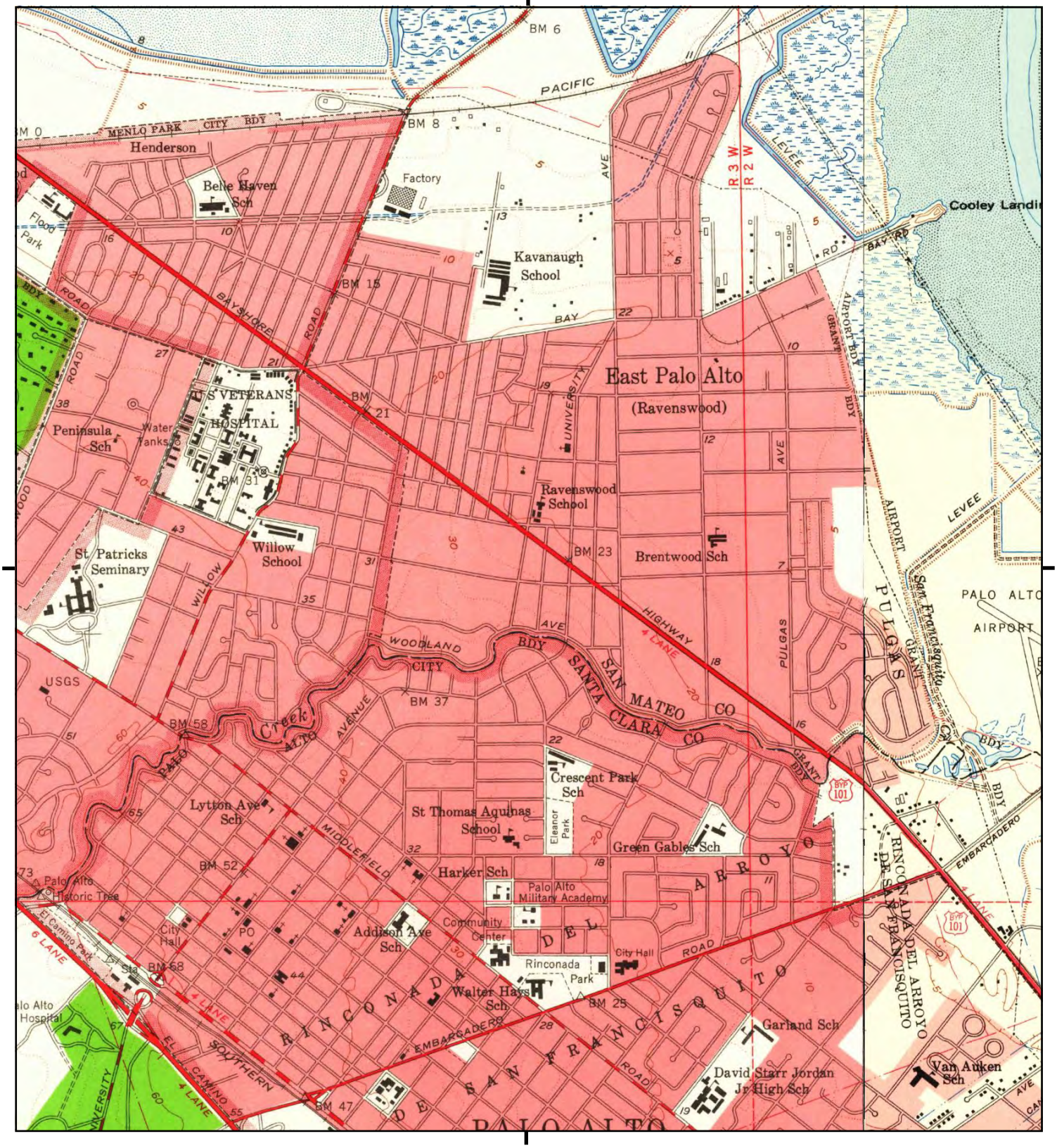
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1961, 7.5-minute
E, Mountain View, 1961, 7.5-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

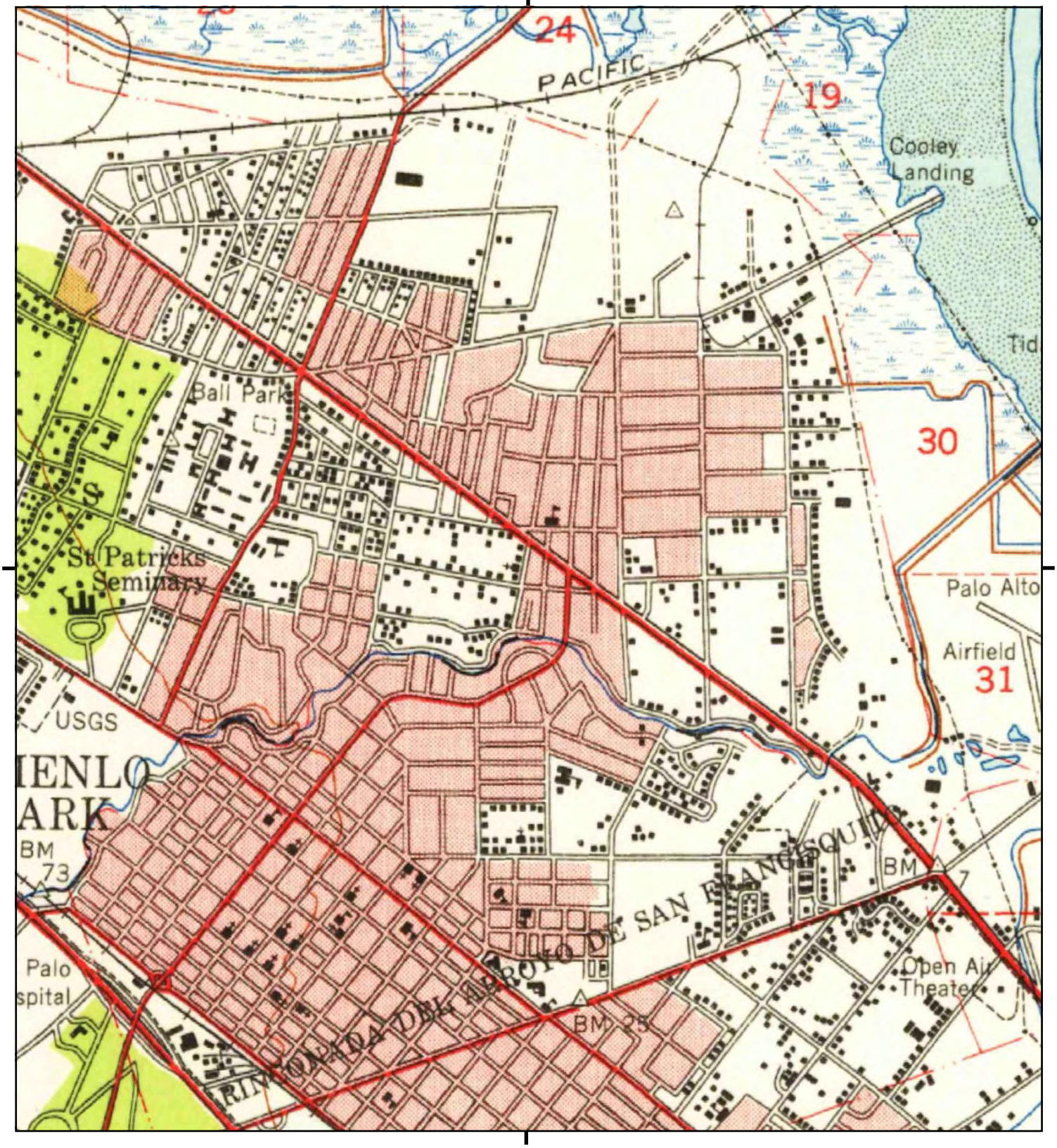
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1953, 7.5-minute
E, Mountain View, 1953, 7.5-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

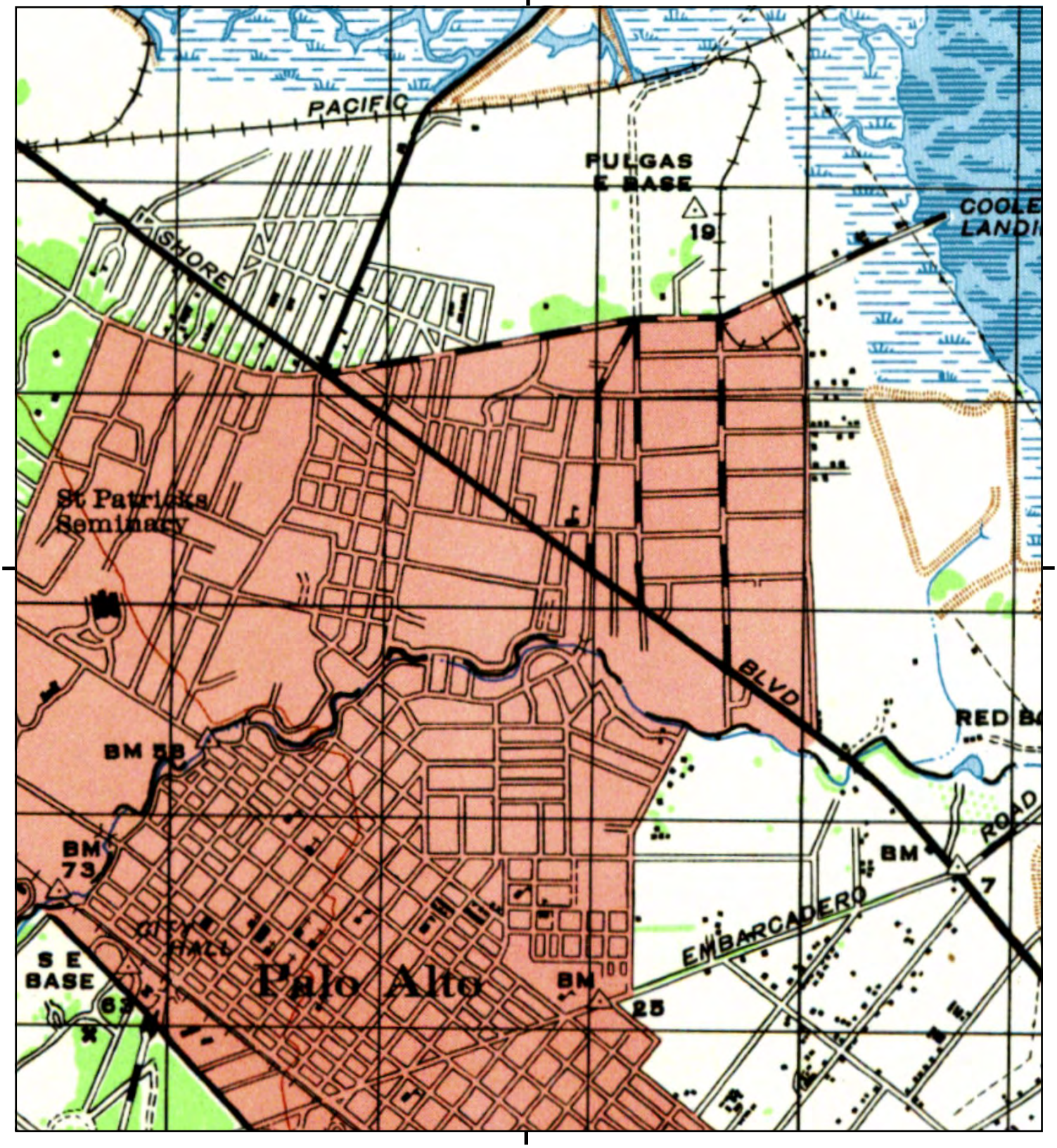
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1948, 15-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

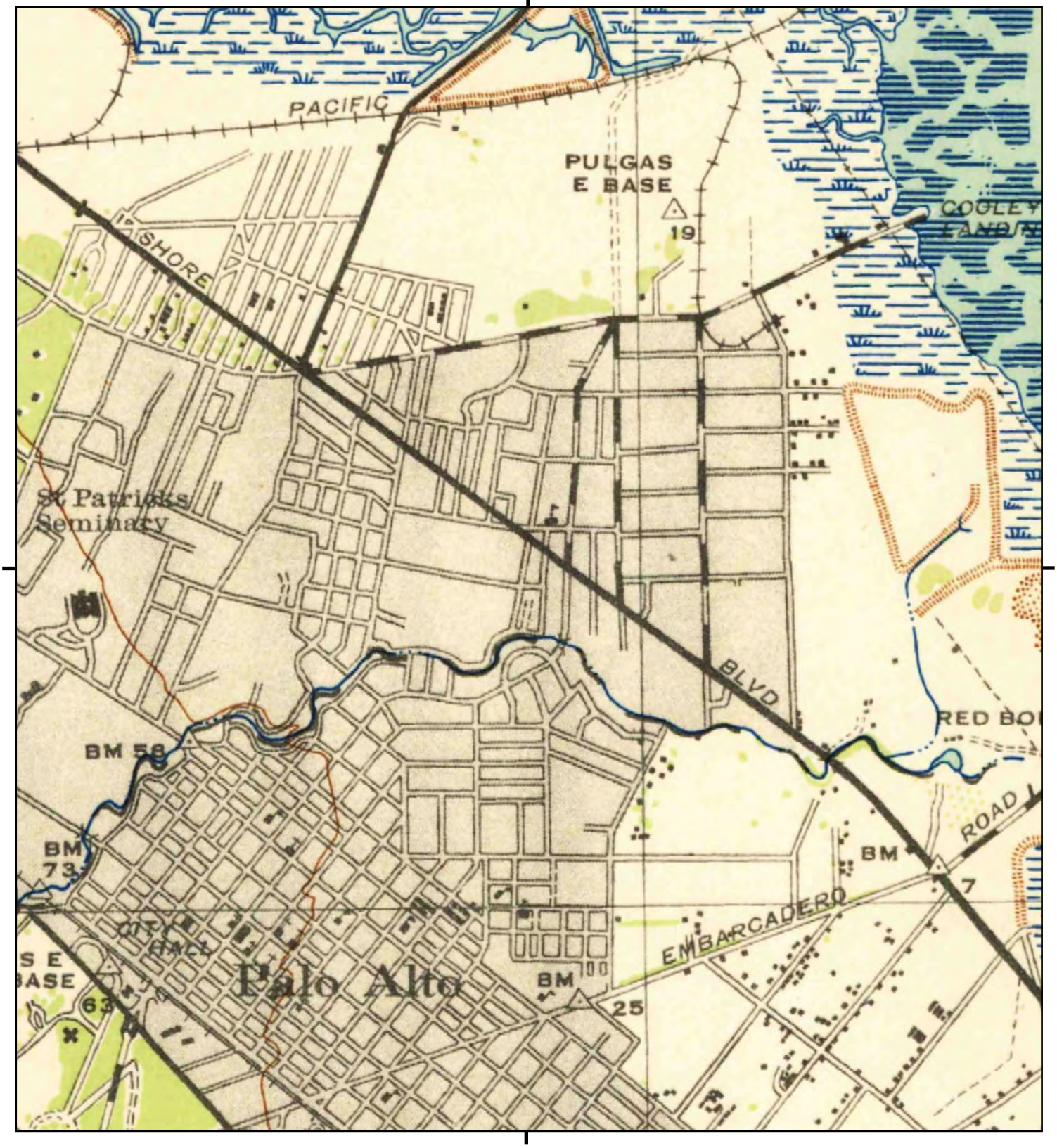
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, PALO ALTO, 1947, 15-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1943, 15-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

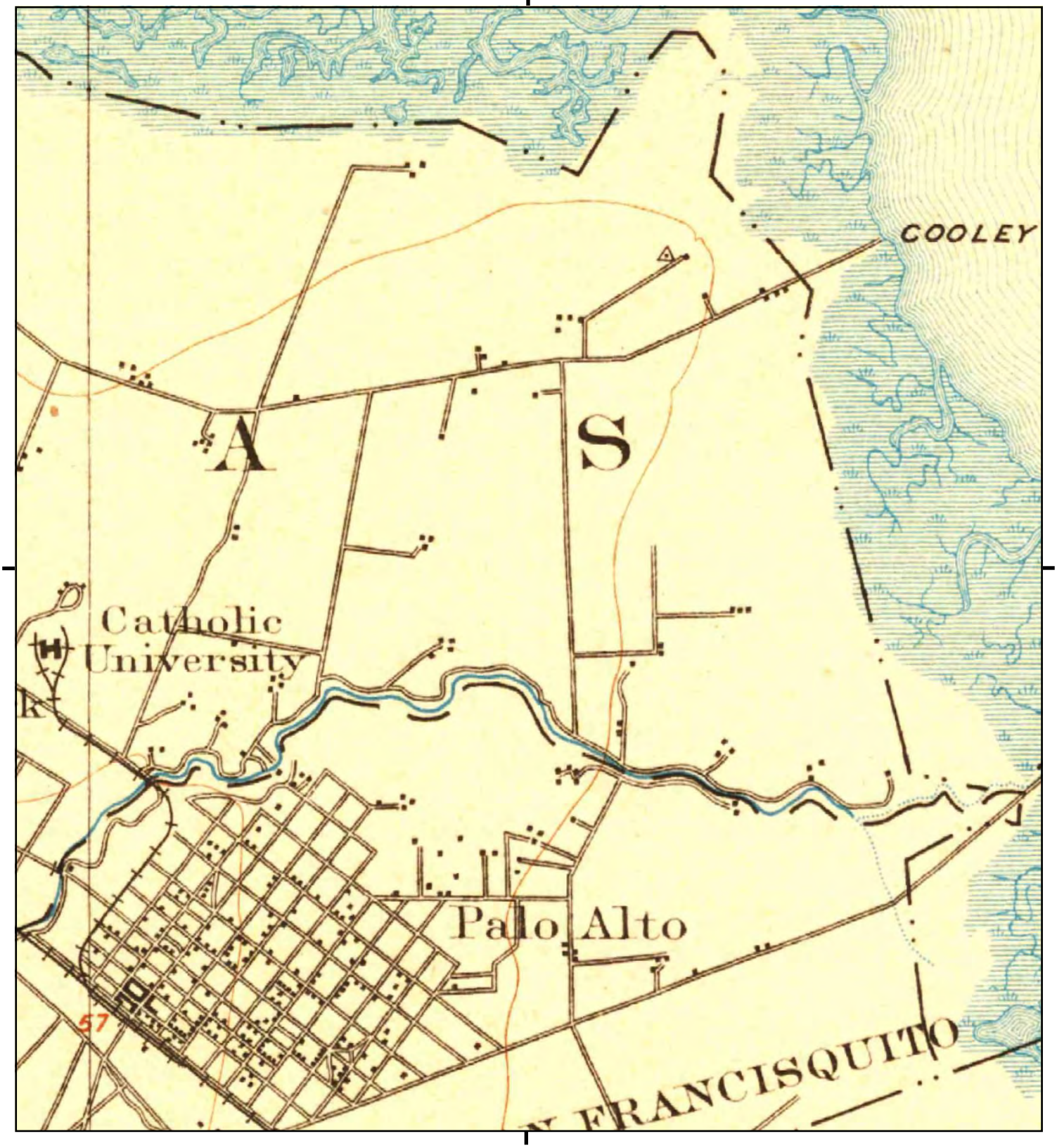
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Santa Cruz, 1902, 30-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

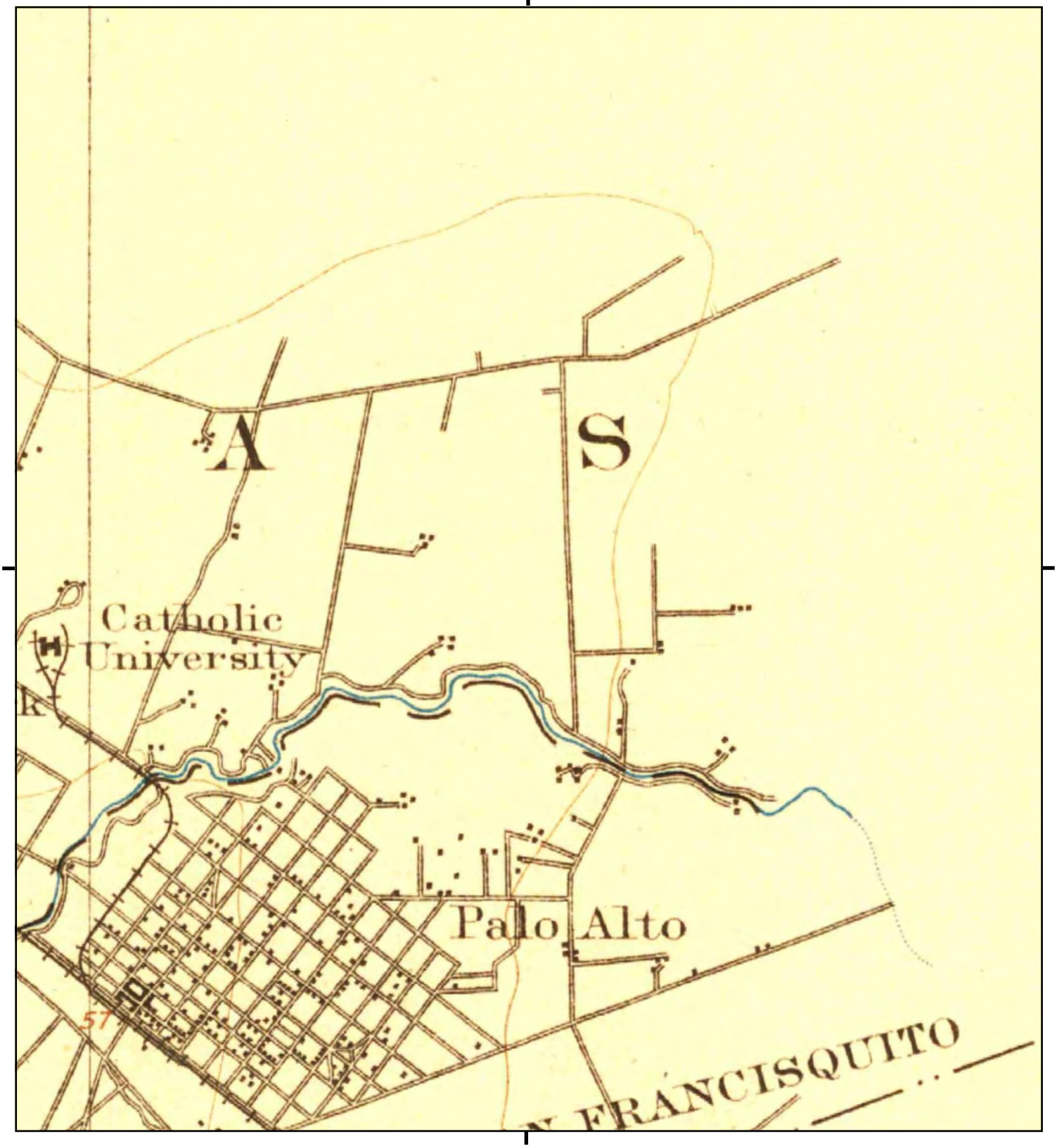
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1899, 15-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Palo Alto, 1897, 15-minute

SITE NAME: Woodland Park Properties
ADDRESS: 2032 Euclid Avenue
East Palo Alto, CA 94303
CLIENT: WSP USA Inc.

N

Woodland Park Properties

2032 Euclid Avenue

East Palo Alto, CA 94303

Inquiry Number: 5782182.11

September 10, 2019

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

09/10/19

Site Name:

Woodland Park Properties
2032 Euclid Avenue
East Palo Alto, CA 94303
EDR Inquiry # 5782182.11

Client Name:

WSP USA Inc.
2025 Gateway Place
San Jose, CA 95110
Contact: Richard Freudenberger

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1998	1"=500'	Flight Date: August 27, 1998	USDA
1991	1"=500'	Acquisition Date: October 30, 1991	USGS/DOQQ
1982	1"=500'	Flight Date: July 05, 1982	USDA
1974	1"=500'	Flight Date: June 26, 1974	USGS
1968	1"=500'	Flight Date: June 14, 1968	USGS
1963	1"=500'	Flight Date: June 23, 1963	EDR Proprietary Aerial Viewpoint
1958	1"=500'	Flight Date: July 21, 1958	USGS
1950	1"=500'	Flight Date: April 03, 1950	USDA
1948	1"=500'	Flight Date: September 26, 1948	USDA
1943	1"=500'	Flight Date: October 05, 1943	USDA
1939	1"=500'	Flight Date: July 31, 1939	USDA

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INQUIRY #: 5782182.11
YEAR: 2016
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 2005
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 1998
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 1991
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 1982
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N
EDR


INQUIRY #: 5782182.11
YEAR: 1974
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N
EDR


INQUIRY #: 5782182.11
YEAR: 1968
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 1963
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 1958
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 1950
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 1948
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 1943
= 500'
N
EDR


INQUIRY #: 5782182.11
YEAR: 1939
= 500'
N
EDR

Woodland Park Properties
2032 Euclid Ave
East Palo Alto, CA 94303

Inquiry Number: 5782182.5
September 10, 2019

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

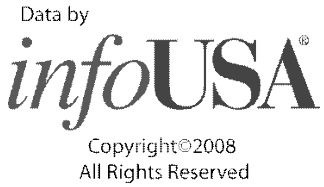
DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☑	☐	EDR Digital Archive
1987	☑	☐	Haines Criss-Cross Directory
1982	☑	☐	Haines Criss-Cross Directory
1977	☑	☐	Haines Criss-Cross Directory
1972	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

2032 Euclid Ave
East Palo Alto, CA 94303

Year	*CD Image*	*Source*	
EUCLID AVE			
2014	pg A1	EDR Digital Archive	
2010	pg A2	EDR Digital Archive	
2005	pg A3	EDR Digital Archive	
2000	pg A4	EDR Digital Archive	
1995	pg A5	EDR Digital Archive	
1992	pg A6	EDR Digital Archive	
1987	pg A7	Haines Criss-Cross Directory	
1987	pg A8	Haines Criss-Cross Directory	
1982	pg A9	Haines Criss-Cross Directory	
1977	pg A10	Haines Criss-Cross Directory	
1972	-	Haines Criss-Cross Directory	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

EUCLID AVE 2014

1947	BROWN CRAIG
1972	GIVESTR INC
1985	SAVE PETES HARBOR INC
2012	DIAZ, VANESSA
	HERNANDEZ, GUILLERMO O
2014	GARCIA, LIDIA
2016	MARTINEZ, ALVARO
2021	CASILLAS, CATALINA
	COKER, ASHLEY
	ILIEV, ALEXANDER I
	LEE, JAMES
	MITCHELL, KIT
	ROMANO, MARY
	SAYARATH, JUSTIN
2025	CASTRO, JOHN R
	REBOLLAR, JESUS B
	ROSALES, M
2026	MENDOZA, MIGUEL
2028	RODRIGUEZ, VICTOR A
2030	REYES, VICTOR
2031	BECKUM, SANDRA
	HERNANDEZ, FELIX
	IRVIN, ROBERT B
	MATADAMAS, PERFECTO M
	PEREDA, KENIA
	SALAS, LAURA C
2032	LOPEZ, JORGE L
2036	PRATT, ANTHONY W
2040	CURRY, LAVETTE
2042	RITCHIE, JINX A
2043	MURAL MUSIC & ARTS PROJECT
	TEAM ESFACE INC
2044	GUTIEREZ, PATRICIA
	RAMIREZ, ISRAEL
2054	GUEVARA, MARIA F
	HERNANDEZ GARDENING
	HERNANDEZ, TOMAS
	MELGARS SPRAY FINISHING
2061	DUNCAN, LARRY
	ORTIZ, MARIA
	SAUNDERS, L
2101	FIFITA, TANIELA
2120	RAVENSWOOD CITY SCHOOL DST
2160	FOUNDTION FOR A CLLEGE EDUCATN
	RAVENSWOOD CITY SCHOOL DST
	SAN MATEO COUNTY BOARD EDUCATN

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

EUCLID AVE 2010

1947	BROWN CRAIG
1955	OSCONSTRUCTION
2011	BURTON, SHERRY
2014	DELGADILLO, LIDI
2016	MARTINEZ, ALVARO
2021	BETTY PHAN
	DEAN, LUCIE S
	DETCHES, COLLEEN F
	MUSOKE, JOSEPH
2024	ROYAL, STAN R
2025	CASTRO, JOHN R
2026	MENDOZA, MIGUEL
2028	RODRIGUEZ, VICTOR
2030	REYES, VICTOR
2031	GUTIERREZ, BESSY
	HERNANDEZ, FELIX
	IRVIN, ROBERT
	MORGAN, DENISE
	ROYAL, DEBORAH J
	SALAS, LAURA C
	SANDOVAL, ANA
2032	STEVENS, JENIFER
2036	KIANI FRED CONTRACTING
	PRATT, ANTHONY W
	THEOPHILUS MICHAEL INC
2040	NELSON, SARELLE
2043	MURAL MUSIC & ARTS PROJECT
2044	FRANCO, HUGO M
	MAGANA, JUANA
2054	HERNANDEZ, TOMAS
	MELGAR, NOVI S
	MELGARS SPRAY FINISHING
	PINTO, HECTOR A
	ROQUE, LUCAS
2061	ANAYA, RUBEN
	BACKWALL, CHRISTIAN
	DUNCAN, LARRY
	ISAIS, ANDREA
2101	MENDOZA, NOHEMI
2120	RAVENSWOOD CITY SCHOOL DISTRIC
2160	RAVENSWOOD CITY SCHOOL DST
	SAN MATEO COUNTY BOARD EDUCATN

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

EUCLID AVE 2005

1994	OFF DAHOOK RECORDS
2011	BASS, DONALD J
2012	GODBOUT, RICHARD N
2014	GARCIA, LIDIA
2016	DIAZ, JOSE
2020	OCCUPANT UNKNOWN,
2021	BETTY PHAN
	DETCHES, COLLEEN
	GROVE, JEROME J
	LATA, SHAMMI
	NIDAIRA, KEI
2022	GALLARDO, CESAREO
2024	ROYAL, STAN
2025	CASTRO, JOHN R
	ROGAN, MICHAEL O
2026	MALDONADO, AMADOR T
2028	JUAREZ, LETICIA R
2031	BARQUIN, ROSSY
	CHAVEZ, FIDENCIO
	GARCIA, JESUS
	HERNANDEZ, FELIX
	LETICIA, MOJICA
2036	FRED KIANI CONTRACTING
	NOOSHABADI, MANIGEH A
2040	PEREZ, ERNESTO
2041	FIGEROUA, F
2043	FREE AT LAST COMMUNITY RECVRY
2044	OCCUPANT UNKNOWN,
2054	CANJURA, ANA G
	MELGARS SPRAY FINISHING
	RODRIGUEZ, JUAN F
2061	BACKWALL, CHRISTIAN
	CADE, BRANDIE
	DUNCAN, LARRY
	LIU, HSING J
	PAHULA, UINITONI
	PARADA, ROQUE
	TAUFA, OLIVA
	TAVAKE, PAUL
	URIBE, ALFREDO
2160	PUSH FOR EXCELLENCE INC
	RAVENSWOOD CITY SCHOOL DST
	SAN MATEO COUNTY SUPT-SCHOOLS
2161	ACCINELLIS CYCLE GOODIES

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

EUCLID AVE 2000

1994	OFF DAHOOK RECORDS
2011	OCCUPANT UNKNOWN,
2012	RIOS, MANUEL R
2014	OCCUPANT UNKNOWN,
2016	OCCUPANT UNKNOWN,
2018	OCCUPANT UNKNOWN,
2020	OCCUPANT UNKNOWN,
2021	MENDOZA, C
	SOLINAN, JOSE
	VOLKMAN, DONALD
2024	OCCUPANT UNKNOWN,
2025	GARLEANU, NICOLAE B
	SPACKMAN, MICHAEL
	TALBOTT, JERON
2026	MALDONADO, AMADOR
2028	JUAREZ, LETICIA R
2030	OCCUPANT UNKNOWN,
2031	ALVARADO, JUAN
	ORTEGA, G
	PEREZ, SAUL
2032	OCCUPANT UNKNOWN,
2033	OCCUPANT UNKNOWN,
2036	KIANI, FRED
2040	MANRIQUEZ, ARACELI B
2041	FIGEROUA, F
2043	OCCUPANT UNKNOWN,
2044	OCCUPANT UNKNOWN,
2054	CANJURA, ANA G
2101	GARCIA, MICAELA
2160	RAVENSWOOD CITY SCHOOL DST
	SAN MATEO COUNTY SUPT-SCHOOLS
2161	ACCINELLIS CYCLE GOODIES

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

EUCLID AVE 1995

1985	MBR
2011	OCCUPANT UNKNOWNN
2012	OCCUPANT UNKNOWNN
2016	OCCUPANT UNKNOWNN
2018	OCCUPANT UNKNOWNN
2021	ALABANZA, J
	SOLINAN, JOSE
	SPENCER, C A
	VOLKMAN, DONALD
2022	OCCUPANT UNKNOWNN
2024	OCCUPANT UNKNOWNN
2025	NAVAR, A
2026	OCCUPANT UNKNOWNN
2028	OCCUPANT UNKNOWNN
2030	OCCUPANT UNKNOWNN
2031	BROOKS, DELORES V
2032	BURNETT, JULIA V
2036	BURCIAGA, ESTON
	KIANI, F
2040	OCCUPANT UNKNOWNN
2041	PALOMINO, ANGELIT
2043	ALLEN, DAVID M
2044	LOPEZ, RICHARD
2054	CANJURA, ANA G
	CHAVEZ, ERNESTO
	HURTADO, PAULA
	SALVADOR, M
2061	WONG, PEARL L
2120	EAST PALO ALTO SR CENTER INC
2160	RAVENSWOOD CITY SCHOOL DST
2161	ACCINELLIS CYCLE GOODIES

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

EUCLID AVE 1992

1910	DAVES HOUSE CLEANING
1985	MBR
2021	ALVAREZ, PACITA
	POTTER, EARL W
	SOLINAN, JOSE
	SPENCER, C A
	VOLKMAN, DONALD
2028	ARGANBRIGHT, WES
2036	ROMERO, JOSE M
2041	PALOMINO, A
2054	AGUILAR, RAMAS M
	PARAWING CO
2061	WONG, PEARL L
2120	EAST PALO ALTO SR CENTER INC
2160	FOOD SERVICES
	RAVENSWOOD CITY SCHOOL DST
2161	ACCINELLIS CYCLE GOODIES

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

EUCLID AVE 1987

EUCLID AV 94303
PALO ALTO

EAST PALO ALTO AREA

1920	STARKEY E	327-3195	2
1972	CATIVO JUAN	325-3290	4
1974	TONG MAX	326-9699	2
1986	DEZUTTI LOUIS R	329-8932	6
	RANNEBARGER N	324-0551	1
1994	HUYNH MUI	321-1804	0
2010	CAMPBELL LEE	326-8220	6
2011	XXXX	00	
2012	SWANSON CARL	328-8124	6
2020	ANDERSON C	853-1590	4
2021	APARTMENTS		
	HARROLD T T	323-6353	6
	KAMPARS ELVIRA J	325-6555	6
	SOLINAN JOSE	326-5081	5
	VOLKMAN DONALD	326-4937	5
	WAHL GARY J	323-3811	6
2021			
2022	YANG E	326-7360	5
2024	XXXX	00	
2025	APARTMENTS		
	BRINK DAVE	321-3955	0
	GALLAGHER LOWELL	322-9593	3
	MOYA MARK J	322-6335	3
	PALMER PERILYN	325-1434	3
	STOCKS MARGUERITT	323-3441	6
	VACHSS FREDERICK	321-5256	5
2025			
2026	FARJAS PATRICK	323-7604	2

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

EUCLID AVE 1987

..EUCLID AV 94303 CONT..

2031	BROWN JOHN W	328-2098	3
	HUBBARD ANNE	328-7051	6
2032	GAIL HARRY A	327-1178	6
	GILBRAITH EVELYN B	325-6832	
2036	JONKER MICHAEL J	326-3225	3
	NORMAN AUSTIN	327-3956	1
2043	KUBIK KIM	328-9908	4
	SANDOVAL ROBERTO	321-9429	6
2044	HOXSIE EILEEN	321-4320	6
	HOXSIE JAMES W	321-4320	6
2054	MIKISHKA PAT	329-8875	6
	SU VAN	326-8678	5
2061	WONG PEARL L	323-2561	5
2120	★EAST PA SENIOR CTR	322-6809	1
2121	REYNOLDS DIANE	326-7417	6
2137	FINDLEY FORREST	325-5751	6
	MARINICH JOHN	326-3654	
2141	ADAMS LILLIAN G	322-5433	
2160	★E S A A PRJ SC K 8	323-9411	2
	★RAVENSWOOD CITY SCH	323-9411	1
2161	★ACCINELLIS CYCLE GD	322-7916	
2173	HAMILTON CLARENCE	325-5489	
2177	FLEMING C	325-1256	6
2190	OAKES CARMALEIT MRS	327-2220	3
2195	ALS E	325-4210	6

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

EUCLID AVE 1982



..EUCLID AV 94303 CONT..

1920	HENDRIX D	321-9346	1
1942	FARIAS ELIESER V	322-5938	0
1950	ADAMS J L	325-3554	3
	BROWN BARBARA	326-9346	0
1966	TOLLEFSON CHRIS	321-0496	1
1968	HENKELS A M	326-9627	1
1970	UZGALIS WILLIAM L	325-6387	7
1972	ALBUTT G	323-7826	0
	BETTS JOEL	321-6217	0
	BURGESS WILLIAM 3D	321-4861	1
	PRINCE DOUG	321-4680	1
1986	JOHNSON G RHYS	326-5393	1
	ORTH J A	322-5297	1
	RANNEBARGER N	324-0551	1
	WRIGHT ROBERT	322-5297	1
1994	HUYNH MUI	321-1804	0
2007	CRAWFORD JIMMIE K	328-6576	7
2011	XXXX	00	
2016	SOMERS FLORENCE D	326-1565	
2020	BERDAI AZZEDINE	325-4952	1
2021	APARTMENTS		
	ATWOOD LEE A	324-1994	1
	BURDICK DAVID P	324-1580	1
	MILLER C R	324-2029	0
	RIEDER RIK	325-4002	0
	ROSS JONATHAN	322-0827	0
2021			
2024	XXXX	00	
2025	BRINK DAVE	321-3955	0
	PALMER PERILYN	322-5102	1
	RANSOM K M	327-0239	1
	SVORONOS ALEXANDER	321-7929	1
2026	WALLACE AMY	323-1629	9
2031	BELL FELECIA	326-6383	1
	MOHAMED G	321-7192	1
	WILLIS WILLIE F	328-4359	1
2032	GILBRAITH EVELYN B	325-6832	5
2036	NORMAN AUSTIN	327-3956	1
B	LONERGAN C A	329-8235	1
2041	GOOD MERYLIE	325-2598	1
2043	GEE JAMES	321-7336	1
2044	HERRIFORD WAYNE	321-0365	9
	JANES Y	328-5745	0
	REICHENECHKER JIM	321-0952	0
2054	APARTMENTS		
7	AYALEW F	327-8613	9
	BOECKER GREGORY S	322-9560	1
	IBANEZ BERNARDO	321-8526	1
6	MASSOUD HISHAM Z	327-0386	8
	TOKUMARU H	322-9651	1
2054			
2061	BELLIN GIAN	325-3662	1
	ROSSSO ADRIANO	325-7784	0
	WONG PEARL L	323-2561	
2101	HOLLAND WALTER W	327-6716	1
2120	**EAST PA SENIOR CTR**	**322-6809**	1
2137	MARINICH JOHN	326-3654	
2139	MATA EVELIA	329-0511	1
2141	ADAMS LILLIAN G	322-5433	
2160	**E S A A PRJCT SC K8**	**323-9411**	6
	RAVENSWD CTY SC ADM	**323-9411**	1
2161	**ACCINELLIS CYCLE GD**	**322-7916**	+2
2173	HAMILTON CLARENCE	325-5489	
	HAMILTON L A	327-0100	0

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

EUCLID AVE 1977



```
 2007 GARTON HENRY MRS    323-4251
 2011  XXXX               OO
 2012 GATES FRANK MRS     322-4475
 2016 SOMERS FLORENCE D   326-1565
 2018 HART JOYCE L        323-0445
 2020 LOWRY AVIS C        325-6296
2021....APARTMENTS
      CARHART ROBERT      327-260
      CLARK HANK          321-578
      COPELAND BRUCE R    327-2267 6
      FEINBERG ANDREW     327-9397 6
    H BALATY JOE          324-3054
    L CASSLEY JOHN        323-7385 2
2021.....................
 2022 BAKER R J           325-9174 3
 2024  XXXX               OO
2025....APARTMENTS
      GRASSO DAVID G      327-4407 6
      KRAMER J            327-0421 6
      PEREIRA JOYCE M     326-5621 6
   2  PETERSEN RICHARD F  325-2542
   1  ROGNLIE ALAN R      323-2055 5
      WALL ALBERT DR      327-8730 6
2025.....................
 2028 SCHLITTLER I        325-8632 3
2031....APARTMENTS
      BRANDON DOLORES     327-2094 6
      COOLIDGE QUENCY C   324-1534 6
      JOHNSON LYNN        321-0735 6
      NEWSON CAROLYN A    326-2430 6
      WILLIAMS JUDY L     326-6298 6
    C FUENTE L M          322-4138 5
    E WOODARD L           323-0977 5
2031.....................
 2032 GILBRAITH EVELYN B  325-6832 5
 2036  XXXX               OO
 2040 PENCE MARIE         323-3390 4
 2043 BEER THOMAS         326-5743 6
      BRANDENBURG J       322-0606 5
 2044 BASHISTA RONALD M   322-9778 4
      HJELMSTAD BRIAN     325-1854 2
2054....APARTMENTS
      BRUNCK TERENCE K    323-2102 3
      FITTS JOHN          327-6806 6
      IMBERTSON MARK      321-6789 6
      KIDD JOHN EDWARD    326-8987 6
      MAEDA JANET L       325-1894 5
      WOO JIM             323-2296 5
2054.....................
 2061 KHALAFALLAH BAHJAT  328-0387 6
      PURVER RON          328-6936 6
      SPINDLER WILLIAM J  321-2069 6
      WONG PEARL L        323-2561
 2110*FREDERICK BURKE     322-1875 5
 2120*RAVENSWD CTY SC DIR324-0053 5
     *RAVENSWD CTY SC NRS324-0055 5
     *RAVENSWD CTY SC PRJ322-4252 5
     *RAVENSWD CTY SC SOC324-0054 5
     *RAVENSWD CTY SC SPC325-1668 5
 2137 MARINICH JOHN       326-3654
 2139  XXXX               OO
 2141 ADAMS JAMES         322-543
 2160*E S A A PROJECT SCH323-941
     *RAVENSWD CTY SC OFC323-941
```

Woodland Park Properties
2032 Euclid Avenue
East Palo Alto, CA 94303

Inquiry Number: 5782182.6
September 09, 2019

The EDR Property Tax Map Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

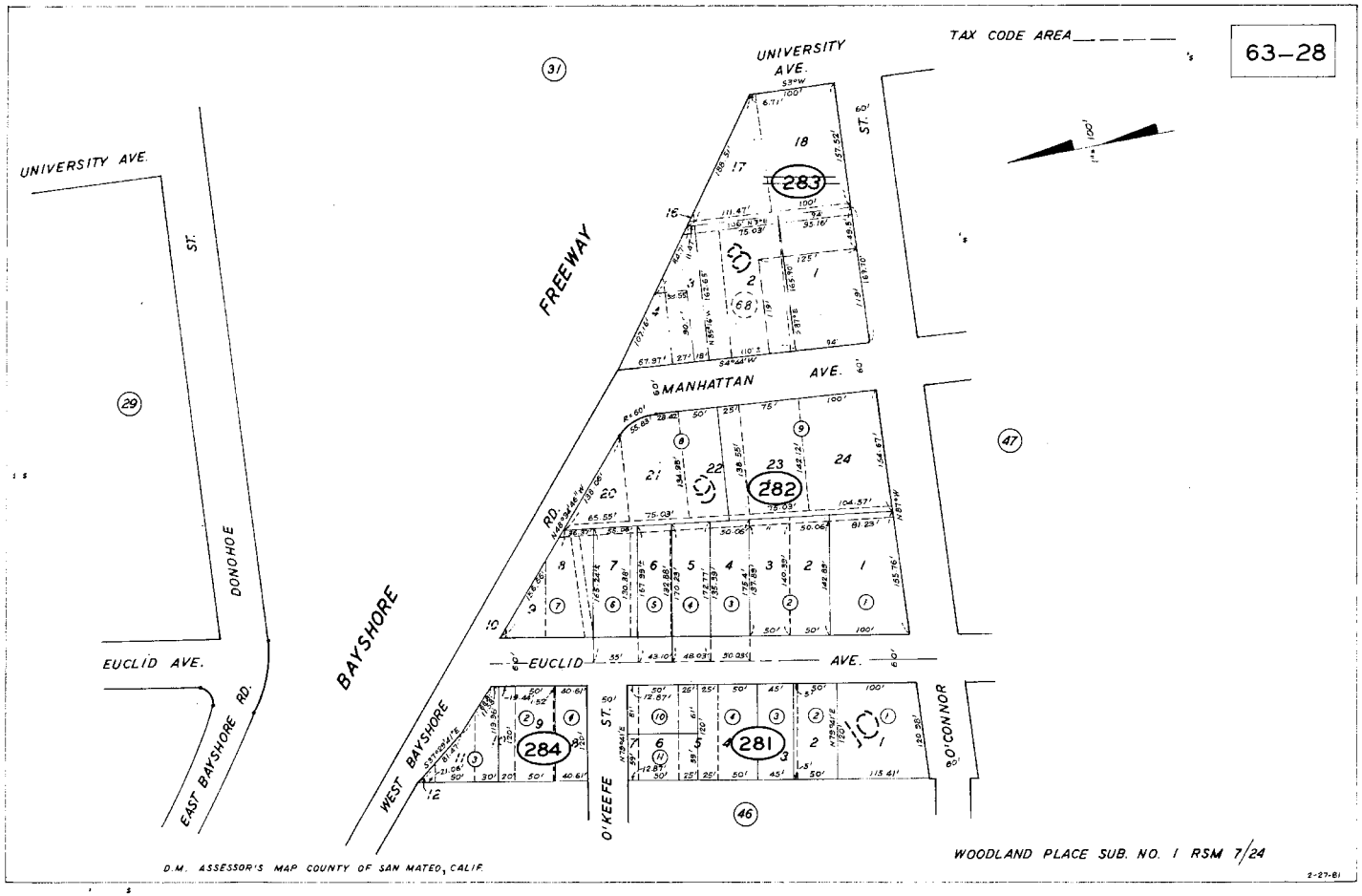
Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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TAX CODE AREA
63-28
UNIVERSITY AVE.
UNIVERSITY AVE.
ST.
DONOHOE
EUCLID AVE.
EAST BAYSHORE RD.
BAYSHORE
WEST BAYSHORE
FREEWAY
MANHATTAN AVE.
EUCLID AVE.
O'KEEFE ST.
O'CONNOR
283
282
281
284
31
29
47
46
D.M. ASSESSOR'S MAP COUNTY OF SAN MATEO, CALIF.
WOODLAND PLACE SUB. NO. 1 RSM 7/24
2-27-81

Woodland Park Properties
2032 Euclid Avenue
East Palo Alto, CA 94303

Inquiry Number: 5782182.7
September 10, 2019

EDR Environmental Lien and AUL Search

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

2032 Euclid Avenue
Woodland Park Properties
East Palo Alto, CA 94303

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

RESEARCH SOURCE

Source 1:

San Mateo Recorder
San Mateo, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	Woodland Park Prop Owner LLC
Title received from:	EQR Woodland Park LP
Deed Dated	2/18/2016
Deed Recorded:	2/23/2016
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Woodland Park Prop Owner LLC
Parcel # / Property Identifier:	063282030
Comments:	See Exhibit

Deed Exhibit 1

Recorded at Request of:
First American Title Insurance Co.

When Recorded Mail Documents to:

Michael F. Sfregola, Esq.
Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, CA 90071-3197

2016-015637
FIRST AMERICAN TITLE COMPANY
8:00 am 02/23/16 DE Fee: 27.00
Count of Pages 5 EP
Recorded in Official Records
County of San Mateo
Mark Church
Assessor-County Clerk-Recorder

* R 0 0 0 2 1 6 4 6 3 2 *

SP

A.P.N.: 063-282-030

The undersigned Grantor declares:
Documentary Transfer Tax is $404.25
Computed on full value of the interest or property conveyed

GRANT DEED

For the consideration of the sum of Ten Dollars ($10.00) and other valuable considerations received, EQR-WOODLAND PARK A LIMITED PARTNERSHIP, a Delaware limited partnership ("Grantor"), does hereby grant to WOODLAND PARK PROPERTY OWNER, LLC, a Delaware limited liability company ("Grantee"), all of Grantor's right, title and interest in and to the following described real property (the "Property") situated in the City of East Palo Alto, San Mateo County, California, together with all improvements thereon and all of Grantor's interest in any rights and privileges appurtenant thereto:

FOR THE DESCRIPTION OF THE PROPERTY, SEE EXHIBIT A ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF.

SUBJECT TO THE PERMITTED EXCEPTIONS LISTED ON EXHIBIT B ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF.

AND GRANTOR hereby binds itself and its successors to warrant and defend the title against all of the acts of Grantor and no other, subject to the matters set forth above.

If any term or provision of this Deed or the application thereof to any persons or circumstances shall, to any extent, be invalid or unenforceable, the remainder of this Deed or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable shall not be affected thereby, and each term and provision of this Deed shall be valid and enforced to the fullest extent permitted by law.

726111-65

Mail Tax Statements to:

Woodland Park Property Owner, LLC
2882 Sand Hill Road, Suite 241
Menlo, Park, CA 94025

IN WITNESS WHEREOF, Grantor has caused this Grant Deed to be executed this 18th day of February, 2016.

GRANTOR:

EQR-WOODLAND PARK A LIMITED PARTNERSHIP, a Delaware limited partnership

By: EQR-Woodland Park A, LLC,
a Delaware limited liability company,
its general partner

By: ERP Operating Limited Partnership,
an Illinois limited partnership,
its sole member

By: Equity Residential,
a Maryland real estate
investment trust,
its general partner

By: _____
Name: CAROLINE HAMMOND
Its: VICE PRESIDENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF ILLINOIS)
) ss.
COUNTY OF COOK)

On February 4, 2016, before me, Shelanda D. Haskell, a Notary Public, personally appeared Caroline Hammond, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person, or entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Illinois that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Shelanda D. Haskell
Notary Public

"OFFICIAL SEAL"
Shelanda D. Haskell
Notary Public, State of Illinois
My Commission Expires April 1, 2017

My commission expires: 4/1/17

EXHIBIT A

LEGAL DESCRIPTION

PORTION OF LOTS 4 AND 5 IN BLOCK 9 AND PORTIONS OF EUCLID AVENUE AND THE ALLEY ADJACENT THERETO, ALL AS SHOWN ON THAT CERTAIN MAP ENTITLED "MAP OF WOODLAND PLACE, SUBDIVISION NO. ONE OF RAVENSWOOD, SAN MATEO COUNTY, CALIFORNIA OF RAVENSWOOD INVESTMENT CO. INC.", FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN MATEO COUNTY, STATE OF CALIFORNIA, ON AUGUST 1, 1910 IN BOOK 7 OF MAPS AT PAGE(S) 24, DESCRIBED AS:

BEGINNING AT A POINT IN THE CENTERLINE OF EUCLID AVENUE DISTANT THEREON NORTH 10° 19' EAST 234.00 FEET FROM THE INTERSECTION THEREOF WITH THE CENTERLINE OF O'CONNOR STREET; RUNNING THENCE ALONG SAID CENTERLINE OF EUCLID AVENUE, NORTH 10° 19' EAST 50.03 FEET; THENCE LEAVING SAID LINE SOUTH 79° 41' EAST 172.77 FEET TO THE CENTERLINE OF ALLEY RUNNING THROUGH SAID BLOCK 9; THENCE ALONG SAID CENTERLINE, SOUTH 7° 27' WEST 50.18 FEET AND THENCE NORTH 79° 41' WEST 175.40 FEET TO THE POINT OF BEGINNING.
EXCEPTING THEREFROM THE NORTHWESTERLY 20 FEET THEREOF FOR A PUBLIC HIGHWAY.

APN: 063-282-030

JPN: 063-028-282-030A

EXHIBIT B

PERMITTED EXCEPTIONS

1. General and special taxes and assessments not yet due and payable and supplemental and escape taxes arising out of changes in ownership and new construction occurring on or after the Closing Date.

2. Rights of tenants in possession shown on the Rent Roll provided to Grantee, as tenants only, under unrecorded Leases, without any purchase options.

3. Zoning, building and other governmental and quasi-governmental laws, codes and regulations applicable to the Property.

4. Covenants, conditions, restrictions, and private or public utility easements of record together with easements or claims of easements not shown by the public records.

5. Encroachments, overlaps, boundary line disputes, or other matters which would be disclosed by an accurate survey or inspection of the Property.

Woodland Park Properties
2032 Euclid Avenue
East Palo Alto, CA 94303

Inquiry Number: 5782182.8
September 09, 2019

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Building Permit Report: Search Documentation

9/09/19

Site Name:
Woodland Park
2032 Euclid Avenue
East Palo Alto, CA

EDR Inquiry # 5782182.8

Client Name:
WSP USA Inc.
2025 Gateway Place
San Jose, CA 95110

Contact: Richard

Search Documentation

DATA GAP

The complete collection of Building Permit data available to EDR has been searched, and as of 9/09/19, EDR does not have access to building permits in the city where your target property is located (East Palo Alto, CA).

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX PROPERTY HISTORY

Appendix G

Noise Modeling Data and Calculations

Noise Measurement Field Data

Project:	Woodland Park	**Job Number:**	097128007
Site No.:	1	**Date:**	9/24/2020
Analyst:	Noemi Wyss	**Time:**	10:40 a.m.
Location:	Bayshore Road		
Noise Sources:	US-101, landscape equipment/ leaf blowing		
Comments:	paused for 10 seconds while waiting for landscape equipment to pass		

Results (dBA):

	Leq:	Lmin:	Lmax:	Peak:
Measurement 1:	68.4	61.7	74.3	88.9

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	73.4°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.00"
Humidity:	27%

Photo:



Kimley»Horn

Summary

File Name on Meter	LxT_Data.009.s
File Name on PC	LxTse_0006073-20200924 103810-LxT_Data.009.ldbin
Serial Number	0006073
Model	SoundExpert® LxT
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-09-24 10:38:10
Stop	2020-09-24 10:53:10
Duration	00:15:00.0
Run Time	00:14:22.9
Pause	00:00:37.1
Pre-Calibration	2020-09-24 10:34:51
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correctio	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weigh	A Weighting
OBA Max Spectrum	Bin Max
Overload	122.0 dB

	A	C	Z
Under Range Peak	**78.6**	75.6	80.6 dB
Under Range Limit	**24.1**	25.0	31.0 dB
Noise Floor	15.0	15.9	21.9 dB

Results

LAeq	68.4	
LAE	97.8	
EA	665.622	µPa²h
LApeak (max)	2020-09-24 10:44:20	88.9 dB
LASmax	2020-09-24 10:42:51	74.3 dB
LASmin	2020-09-24 10:44:18	61.7 dB
SEA	-99.9	dB
LAS > 85.0 dB (Exceed	0	0.0 s
LAS > 115.0 dB (Excee	0	0.0 s
LApeak > 135.0 dB (Exc	0	0.0 s
LApeak > 137.0 dB (Exc	0	0.0 s
LApeak > 140.0 dB (Exc	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	68.4	68.4	-99.9	68.4	68.4	-99.9	-99.9	dB

LCeq	75.4	dB
LAeq	68.4	dB
LCeq - LAeq	6.9	dB
LAleq	69.0	dB
LAeq	68.4	dB
LAleq - LAeq	0.6	dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	68.4		75.4			
LS(max)	74.3	2020/09/24 10:42:51				
LS(min)	61.7	2020/09/24 10:44:18				
LPeak(max)	88.9	2020/09/24 10:44:20				

Overload Count	0	
Overload Duration	0.0	s
OBA Overload Count	0	
OBA Overload Duratic	0.0	s

Statistics

LAI5.00	71.7	dB
LAI10.00	71.0	dB
LAI33.30	68.4	dB
LAI50.00	67.7	dB
LAI66.60	67.0	dB
LAI90.00	65.4	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
PRMLxT1L	2020-09-24 10:34:47	-28.29
PRMLxT1L	2020-09-24 10:32:04	-28.14
PRMLxT1L	2020-09-24 10:31:39	-28.18
PRMLxT1L	2020-09-24 10:27:21	-28.17
PRMLxT1L	2020-09-24 10:24:49	-14.19
PRMLxT1L	2020-09-24 10:24:06	-14.53
PRMLxT1L	2020-09-24 10:23:10	-14.73
PRMLxT1L	2020-07-22 09:23:37	-28.25
PRMLxT1L	2020-04-08 03:26:12	-27.70
PRMLxT1L	2020-04-07 08:57:01	-27.63
PRMLxT1L	2020-04-07 08:45:49	-26.38

Noise Measurement Field Data

Project:	Woodland Park	**Job Number:**	097128007
Site No.:	2	**Date:**	9/24/2020
Analyst:	Noemi Wyss	**Time:**	11:00 a.m.
Location:	Okeefe and Euclid		
Noise Sources:	Cars Euclid, neighbors talking, airplane, dog		
Comments:			

Results (dBA):

	Leq:	Lmin:	Lmax:	Peak:
Measurement 1:	61.8	60.1	62.7	97.2

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	73.4°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.00"
Humidity:	27%

Photo:



Kimley»Horn

Summary

File Name on Meter	LxT_Data.010.s
File Name on PC	LxTse_0006073-20200924 105813-LxT_Data.010.ldbin
Serial Number	0006073
Model	SoundExpert® LxT
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-09-24 10:58:13
Stop	2020-09-24 11:13:36
Duration	00:15:12.9
Run Time	00:15:10.0
Pause	00:00:02.9
Pre-Calibration	2020-09-24 10:34:47
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	Bin Max
Overload	122.0 dB

	A	**C**	**Z**
Under Range Peak	**78.6**	75.6	80.6 dB
Under Range Limit	**24.1**	25.0	31.0 dB
Noise Floor	15.0	15.9	21.9 dB

Results

LAeq	61.8	
LAE	91.4	
EA	152.358 µPa²h	
LApeak (max)	2020-09-24 11:01:08	97.2 dB
LASmax	2020-09-24 11:01:08	73.2 dB
LASmin	2020-09-24 11:12:06	56.0 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	61.8	61.8	-99.9	61.8	61.8	-99.9	-99.9	dB

LCeq	70.7 dB
LAeq	61.8 dB
LCeq - LAeq	8.9 dB
LAIeq	63.8 dB
LAeq	61.8 dB
LAIeq - LAeq	2.0 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	61.8		70.7			
LS(max)	73.2	2020/09/24 11:01:08				
LS(min)	56.0	2020/09/24 11:12:06				
LPeak(max)	97.2	2020/09/24 11:01:08				

Overload Count	0
Overload Duration	0.0 s
OBA Overload Count	0
OBA Overload Duration	0.0 s

Statistics

LAI5.00	64.3 dB
LAI10.00	63.4 dB
LAI33.30	61.9 dB
LAI50.00	61.3 dB
LAI66.60	60.7 dB
LAI90.00	59.4 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
PRMLxT1L	2020-09-24 10:34:47	-28.29
PRMLxT1L	2020-09-24 10:32:04	-28.14
PRMLxT1L	2020-09-24 10:31:39	-28.18
PRMLxT1L	2020-09-24 10:27:21	-28.17
PRMLxT1L	2020-09-24 10:24:49	-14.19
PRMLxT1L	2020-09-24 10:24:06	-14.53
PRMLxT1L	2020-09-24 10:23:10	-14.73
PRMLxT1L	2020-07-22 09:23:37	-28.25
PRMLxT1L	2020-04-08 03:26:12	-27.70
PRMLxT1L	2020-04-07 08:57:01	-27.63
PRMLxT1L	2020-04-07 08:45:49	-26.38

Noise Measurement Field Data

Project:	Woodland Park	**Job Number:**	097128007
Site No.:	3	**Date:**	9/24/2020
Analyst:	Noemi Wyss	**Time:**	11:25 a.m.
Location:	O'Connor and Euclid		
Noise Sources:	Cars on Euclid, airplanes, fire truck passing, truck backing up for deliveries		
Comments:			

Results (dBA):

	Leq:	Lmin:	Lmax:	Peak:
Measurement 1:	64.2	50.4	85.5	98.6

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	73.4°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.00"
Humidity:	27%

Photo:



Kimley»Horn

Summary

File Name on Meter	LxT_Data.012.s
File Name on PC	LxTse_0006073-20200924 112301-LxT_Data.012.ldbin
Serial Number	0006073
Model	SoundExpert® LxT
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-09-24 11:23:01
Stop	2020-09-24 11:38:01
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2020-09-24 10:34:47
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	Bin Max
Overload	122.0 dB

	A	C	Z
Under Range Peak	**78.6**	75.6 dB	80.6 dB
Under Range Limit	**24.1**	25.0 dB	31.0 dB
Noise Floor	15.0	15.9 dB	21.9 dB

Results

LAeq	64.7
LAE	94.2
EA	293.033 µPa²h
LApeak (max)	2020-09-24 11:35:14 98.6 dB
LASmax	2020-09-24 11:35:15 85.5 dB
LASmin	2020-09-24 11:30:02 50.4 dB
SEA	-99.9 dB
LAS > 85.0 dB (Exceedance Counts / Duration)	1 2.2 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0 0.0 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0 0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0 0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0 0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	64.7	64.7	-99.9	64.7	64.7	-99.9	-99.9	dB

LCeq	73.0 dB
LAeq	64.7 dB
LCeq - LAeq	8.3 dB
LAleq	65.8 dB
LAeq	64.7 dB
LAleq - LAeq	1.2 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	64.7		73.0			
LS(max)	85.5	2020/09/24 11:35:15				
LS(min)	50.4	2020/09/24 11:30:02				
LPeak(max)	98.6	2020/09/24 11:35:14				

Overload Count	0
Overload Duration	0.0 s
OBA Overload Count	0
OBA Overload Duration	0.0 s

Statistics

LAI5.00	68.2 dB
LAI10.00	64.7 dB
LAI33.30	59.8 dB
LAI50.00	57.4 dB
LAI66.60	55.7 dB
LAI90.00	53.3 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
PRMLxT1L	2020-09-24 10:34:47	-28.29
PRMLxT1L	2020-09-24 10:32:04	-28.14
PRMLxT1L	2020-09-24 10:31:39	-28.18
PRMLxT1L	2020-09-24 10:27:21	-28.17
PRMLxT1L	2020-09-24 10:24:49	-14.19
PRMLxT1L	2020-09-24 10:24:06	-14.53
PRMLxT1L	2020-09-24 10:23:10	-14.73
PRMLxT1L	2020-07-22 09:23:37	-28.25
PRMLxT1L	2020-04-08 03:26:12	-27.70
PRMLxT1L	2020-04-07 08:57:01	-27.63
PRMLxT1L	2020-04-07 08:45:49	-26.38

Noise Measurement Field Data

Project:	Woodland Park	**Job Number:**	097128007
Site No.:	4	**Date:**	9/24/2020
Analyst:	Noemi Wyss	**Time:**	11:50 a.m.
Location:	Manhattan Avenue		
Noise Sources:	Cars traveling on road, food truck, generators, laundromat		
Comments:			

Results (dBA):

	Leq:	Lmin:	Lmax:	Peak:
Measurement 1:	65.8	59.2	85.3	97.0

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	73.4°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.00"
Humidity:	27%

Photo:



Kimley»Horn

Summary

File Name on Meter	LxT_Data.013.s
File Name on PC	LxTse_0006073-20200924 114744-LxT_Data.013.ldbin
Serial Number	0006073
Model	SoundExpert® LxT
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2020-09-24 11:47:44
Stop	2020-09-24 12:02:44
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2020-09-24 10:34:47
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamplifier	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
OBA Range	Normal		
OBA Bandwidth	1/1 and 1/3		
OBA Frequency Weighting	A Weighting		
OBA Max Spectrum	Bin Max		
Overload	122.0 dB		
	A	**C**	**Z**
Under Range Peak	**78.6**	75.6	80.6 dB
Under Range Limit	**24.1**	25.0	31.0 dB
Noise Floor	15.0	15.9	21.9 dB

Results

LAeq	65.8	
LAE	95.4	
EA	382.429 µPa²h	
LApeak (max)	2020-09-24 12:02:04	97.0 dB
LASmax	2020-09-24 12:02:05	85.3 dB
LASmin	2020-09-24 12:01:34	59.2 dB
SEA	-99.0 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	1	1.5 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	65.8	65.8	-99.9	65.8	65.8	-99.9	-99.9	dB

LCeq	76.2 dB
LAeq	65.8 dB
LCeq - LAeq	10.4 dB
LAIeq	67.4 dB
LAeq	65.8 dB
LAIeq - LAeq	1.5 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	65.8		76.2			
LS(max)	85.3	2020/09/24 12:02:05				
LS(min)	59.2	2020/09/24 12:01:34				
LPeak(max)	97.0	2020/09/24 12:02:04				

Overload Count	0
Overload Duration	0.0 s
OBA Overload Count	0
OBA Overload Duration	0.0 s

Statistics

LAI5.00	69.1 dB
LAI10.00	66.9 dB
LAI33.30	62.7 dB
LAI50.00	61.8 dB
LAI66.60	61.1 dB
LAI90.00	60.2 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**
PRMLxT1L	2020-09-24 10:34:47	-28.29
PRMLxT1L	2020-09-24 10:32:04	-28.14
PRMLxT1L	2020-09-24 10:31:39	-28.18
PRMLxT1L	2020-09-24 10:27:21	-28.17
PRMLxT1L	2020-09-24 10:24:49	-14.19
PRMLxT1L	2020-09-24 10:24:06	-14.53
PRMLxT1L	2020-09-24 10:23:10	-14.73
PRMLxT1L	2020-07-22 09:23:37	-28.25
PRMLxT1L	2020-04-08 03:26:12	-27.70
PRMLxT1L	2020-04-07 08:57:01	-27.63
PRMLxT1L	2020-04-07 08:45:49	-26.38

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Woodland Park
Project Number:
Scenario: Existing
Ldn/CNEL: Ldn

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway			
				Median	ADT	Speed	Alpha	Medium	Heavy	Ldn at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	Trucks	Trucks	100 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
1	University Avenue	Between Bayfront Expressway and O'Brien Drive	4	17	22,800	35	0	2.0%	1.0%	63.9	-	77	243	769
2	University Avenue	Between O'Brien Drive and Notre Dame Avenue	4	15	19,200	25	0	2.0%	1.0%	60.9	-	-	124	391
3	University Avenue	Between Notre Dame Avenue and Kavanaugh Drive	4	10	19,800	25	0	2.0%	1.0%	61.0	-	-	127	401
4	University Avenue	Between Kavanaugh Drive and Bay Road	4	10	20,100	25	0	2.0%	1.0%	61.1	-	-	129	407
5	University Avenue	Between Bay Road and Runnymede Street	4	10	17,900	25	0	2.0%	1.0%	60.6	-	-	115	362
6	University Avenue	Between Runnymede Street and Bell Street	4	12	15,300	25	0	2.0%	1.0%	59.9	-	-	98	310
7	University Avenue	Between Bell Street and Donohoe Street	4	15	17,500	25	0	2.0%	1.0%	60.5	-	-	113	356
8	University Avenue	Between Donohoe Street and NB US-101 Ramps	4	23	26,400	25	0	2.0%	1.0%	62.4	-	-	172	544
9	University Avenue	Between NB US-101 Ramps and SB US-101 Ramps	4	23	32,300	25	0	2.0%	1.0%	63.2	-	67	210	666
10	University Avenue	S/O Woodland Avenue	4	0	26,400	25	0	2.0%	1.0%	62.2	-	53	167	528
11	University Avenue	Between SB US-101 Ramps and Woodland Avenue	4	10	14,300	25	0	2.0%	1.0%	59.6	-	-	91	289
12	Willow Road	N/O NB US-101 Ramps	5	15	40,100	40	0	2.0%	1.0%	67.6	58	183	578	1,828
13	Willow Road	Between NB US-101 Ramps and SB US-101 Ramps	6	5	33,200	40	0	2.0%	1.0%	66.8	-	152	480	1,519
14	Willow Road	Between SB US-101 Ramps and Bay Road	4	13	29,000	25	0	2.0%	1.0%	62.7	-	59	186	589
15	Willow Road	S/O Bay Road	4	10	8,300	25	0	2.0%	1.0%	57.3	-	-	53	168
16	Manhattan Avenue	W/O Euclid Avenue	2	0	1,600	25	0	2.0%	1.0%	50.0	-	-	-	-
17	Manhattan Avenue	Between Euclid Avenue and O'Conner Street	2	0	2,100	25	0	2.0%	1.0%	51.2	-	-	-	41
18	Manhattan Avenue	Between O'Conner Street and Woodland Avenue	2	0	4,100	25	0	2.0%	1.0%	54.1	-	-	-	81
19	Donohoe Street	W/O NB US-101 Ramp On-Ramp	4	10	12,200	25	0	2.0%	1.0%	58.9	-	-	78	247
20	Donohoe Street	Between NB US-101 On-Ramp and University Avenue	4	10	23,400	25	0	2.0%	1.0%	61.8	-	-	150	473
21	Donohoe Street	Between University Avenue and NB US-101 Off-Ramp	4	13	21,400	25	0	2.0%	1.0%	61.4	-	-	137	435
22	Donohoe Street	Between NB US-101 Off-Ramp and Bayshore Road	4	25	21,200	25	0	2.0%	1.0%	61.4	-	-	139	438
23	E Bayshore Road	E/O Donohoe Street	6	15	10,400	25	0	2.0%	1.0%	58.4	-	-	70	221
24	US 101	S/O University Avenue	6	15	223,200	65	0	2.0%	1.0%	80.1	1,034	3,268	10,335	32,683
25	US 101	Between University Avenue and Willow Road	6	15	219,800	65	0	2.0%	1.0%	80.1	1,018	3,219	10,178	32,185
26	US 101	N/O Willow Road	6	15	206,400	65	0	2.0%	1.0%	79.8	956	3,022	9,557	30,223

[1] Distance is from the centerline of the roadway segment to the receptor location.
"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Woodland Park
Project Number:
Scenario: Existing Plus Project
Ldn/CNEL: Ldn

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway				
				Median	ADT	Speed	Alpha	Medium	Heavy	Ldn at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	Trucks	Trucks	100 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
1	University Avenue	Between Bayfront Expressway and O'Brien Drive	4	17	22,900	35	0	2.0%	1.0%	63.9	-	77	244	772
2	University Avenue	Between O'Brien Drive and Notre Dame Avenue	4	15	19,200	25	0	2.0%	1.0%	60.9	-	-	124	391
3	University Avenue	Between Notre Dame Avenue and Kavanaugh Drive	4	10	19,900	25	0	2.0%	1.0%	61.0	-	-	127	403
4	University Avenue	Between Kavanaugh Drive and Bay Road	4	10	20,200	25	0	2.0%	1.0%	61.1	-	-	129	409
5	University Avenue	Between Bay Road and Runnymede Street	4	10	18,100	25	0	2.0%	1.0%	60.6	-	-	116	366
6	University Avenue	Between Runnymede Street and Bell Street	4	12	15,500	25	0	2.0%	1.0%	60.0	-	-	99	314
7	University Avenue	Between Bell Street and Donohoe Street	4	15	17,800	25	0	2.0%	1.0%	60.6	-	-	115	362
8	University Avenue	Between Donohoe Street and NB US-101 Ramps	4	23	26,900	25	0	2.0%	1.0%	62.4	-	-	175	554
9	University Avenue	Between NB US-101 Ramps and SB US-101 Ramps	4	23	33,100	25	0	2.0%	1.0%	63.3	-	68	216	682
10	University Avenue	S/O Woodland Avenue	4	0	27,500	25	0	2.0%	1.0%	62.4	-	55	174	550
11	University Avenue	Between SB US-101 Ramps and Woodland Avenue	4	10	14,600	25	0	2.0%	1.0%	59.7	-	-	93	295
12	Willow Road	N/O NB US-101 Ramps	5	15	40,100	40	0	2.0%	1.0%	67.6	58	183	578	1,828
13	Willow Road	Between NB US-101 Ramps and SB US-101 Ramps	6	5	33,500	40	0	2.0%	1.0%	66.9	-	153	485	1,533
14	Willow Road	Between SB US-101 Ramps and Bay Road	4	13	29,300	25	0	2.0%	1.0%	62.7	-	59	188	595
15	Willow Road	S/O Bay Road	4	10	8,300	25	0	2.0%	1.0%	57.3	-	-	53	168
16	Manhattan Avenue	W/O Euclid Avenue	2	0	1,900	25	0	2.0%	1.0%	50.7	-	-	-	37
17	Manhattan Avenue	Between Euclid Avenue and O'Conner Street	2	0	3,200	25	0	2.0%	1.0%	53.0	-	-	-	63
18	Manhattan Avenue	Between O'Conner Street and Woodland Avenue	2	0	5,500	25	0	2.0%	1.0%	55.4	-	-	34	108
19	Donohoe Street	W/O NB US-101 Ramp On-Ramp	4	10	12,200	25	0	2.0%	1.0%	58.9	-	-	78	247
20	Donohoe Street	Between NB US-101 On-Ramp and University Avenue	4	10	23,400	25	0	2.0%	1.0%	61.8	-	-	150	473
21	Donohoe Street	Between University Avenue and NB US-101 Off-Ramp	4	13	21,500	25	0	2.0%	1.0%	61.4	-	-	138	437
22	Donohoe Street	Between NB US-101 Off-Ramp and Bayshore Road	4	25	21,200	25	0	2.0%	1.0%	61.4	-	-	139	438
23	E Bayshore Road	E/O Donohoe Street	6	15	10,500	25	0	2.0%	1.0%	58.5	-	-	71	223
24	US 101	S/O University Avenue	6	15	223,917	65	0	2.0%	1.0%	80.2	1,037	3,279	10,369	32,788
25	US 101	Between University Avenue and Willow Road	6	15	220,125	65	0	2.0%	1.0%	80.1	1,019	3,223	10,193	32,233
26	US 101	N/O Willow Road	6	15	207,072	65	0	2.0%	1.0%	79.8	959	3,032	9,589	30,322

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Woodland Park
Project Number:
Scenario: Cumulative
Ldn/CNEL: Ldn

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway				
				Median	ADT	Speed	Alpha	Medium	Heavy	Ldn at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	Trucks	Trucks	100 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
1	University Avenue	Between Bayfront Expressway and O'Brien Drive	4	17	30,900	35	0	2.0%	1.0%	65.2	-	104	329	1,042
2	University Avenue	Between O'Brien Drive and Notre Dame Avenue	4	15	26,500	25	0	2.0%	1.0%	62.3	-	54	171	540
3	University Avenue	Between Notre Dame Avenue and Kavanaugh Drive	4	10	27,400	25	0	2.0%	1.0%	62.4	-	55	175	554
4	University Avenue	Between Kavanaugh Drive and Bay Road	4	10	27,100	25	0	2.0%	1.0%	62.4	-	55	173	548
5	University Avenue	Between Bay Road and Runnymede Street	4	10	24,800	25	0	2.0%	1.0%	62.0	-	50	159	502
6	University Avenue	Between Runnymede Street and Bell Street	4	12	22,300	25	0	2.0%	1.0%	61.6	-	-	143	452
7	University Avenue	Between Bell Street and Donohoe Street	4	15	25,500	25	0	2.0%	1.0%	62.2	-	52	164	519
8	University Avenue	Between Donohoe Street and NB US-101 Ramps	4	23	37,700	25	0	2.0%	1.0%	63.9	-	78	246	777
9	University Avenue	Between NB US-101 Ramps and SB US-101 Ramps	4	23	45,500	25	0	2.0%	1.0%	64.7	-	94	296	938
10	University Avenue	S/O Woodland Avenue	4	0	35,800	25	0	2.0%	1.0%	63.6	-	72	227	717
11	University Avenue	Between SB US-101 Ramps and Woodland Avenue	4	10	21,300	25	0	2.0%	1.0%	61.3	-	-	136	431
12	Willow Road	N/O NB US-101 Ramps	5	15	54,400	40	0	2.0%	1.0%	68.9	78	248	784	2,480
13	Willow Road	Between NB US-101 Ramps and SB US-101 Ramps	6	5	45,100	40	0	2.0%	1.0%	68.1	65	206	653	2,063
14	Willow Road	Between SB US-101 Ramps and Bay Road	4	13	39,000	25	0	2.0%	1.0%	64.0	-	79	250	792
15	Willow Road	S/O Bay Road	4	10	8,300	25	0	2.0%	1.0%	57.3	-	-	53	168
16	Manhattan Avenue	W/O Euclid Avenue	2	0	2,200	25	0	2.0%	1.0%	51.4	-	-	-	43
17	Manhattan Avenue	Between Euclid Avenue and O'Conner Street	2	0	2,800	25	0	2.0%	1.0%	52.4	-	-	-	55
18	Manhattan Avenue	Between O'Conner Street and Woodland Avenue	2	0	4,500	25	0	2.0%	1.0%	54.5	-	-	-	89
19	Donohoe Street	W/O NB US-101 Ramp On-Ramp	4	10	17,600	25	0	2.0%	1.0%	60.5	-	-	113	356
20	Donohoe Street	Between NB US-101 On-Ramp and University Avenue	4	10	32,300	25	0	2.0%	1.0%	63.2	-	65	207	653
21	Donohoe Street	Between University Avenue and NB US-101 Off-Ramp	4	13	29,500	25	0	2.0%	1.0%	62.8	-	60	189	599
22	Donohoe Street	Between NB US-101 Off-Ramp and Bayshore Road	4	25	29,800	25	0	2.0%	1.0%	62.9	-	62	195	616
23	E Bayshore Road	E/O Donohoe Street	6	15	13,900	25	0	2.0%	1.0%	59.7	-	-	93	295
24	US 101	S/O University Avenue	6	15	219,700	65	0	2.0%	1.0%	80.1	1,017	3,217	10,173	32,171
25	US 101	Between University Avenue and Willow Road	6	15	215,600	65	0	2.0%	1.0%	80.0	998	3,157	9,983	31,570
26	US 101	N/O Willow Road	6	15	202,200	65	0	2.0%	1.0%	79.7	936	2,961	9,363	29,608

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: Woodland Park
Project Number: Cumulative Plus Project
Scenario:
Ldn/CNEL: Ldn

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway				
				Median	ADT	Speed	Alpha	Medium	Heavy	Ldn at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	Trucks	Trucks	100 Feet	70 Ldn	65 Ldn	60 Ldn	55 Ldn
1	University A	Between Bayfront Expressway and O'Brien Drive	4	17	31,000	35	0	2.0%	1.0%	65.2	-	105	331	1,045
2	University A	Between O'Brien Drive and Notre Dame Avenue	4	15	26,500	25	0	2.0%	1.0%	62.3	-	54	171	540
3	University A	Between Notre Dame Avenue and Kavanaugh Drive	4	10	27,500	25	0	2.0%	1.0%	62.5	-	56	176	556
4	University A	Between Kavanaugh Drive and Bay Road	4	10	27,200	25	0	2.0%	1.0%	62.4	-	55	174	550
5	University A	Between Bay Road and Runnymede Street	4	10	25,000	25	0	2.0%	1.0%	62.0	-	51	160	506
6	University A	Between Runnymede Street and Bell Street	4	12	22,600	25	0	2.0%	1.0%	61.6	-	-	145	458
7	University A	Between Bell Street and Donohoe Street	4	15	25,800	25	0	2.0%	1.0%	62.2	-	53	166	525
8	University A	Between Donohoe Street and NB US-101 Ramps	4	23	38,100	25	0	2.0%	1.0%	63.9	-	79	248	785
9	University A	Between NB US-101 Ramps and SB US-101 Ramps	4	23	46,300	25	0	2.0%	1.0%	64.8	-	95	302	954
10	University A	S/O Woodland Avenue	4	0	37,000	25	0	2.0%	1.0%	63.7	-	74	234	741
11	University A	Between SB US-101 Ramps and Woodland Avenue	4	10	21,600	25	0	2.0%	1.0%	61.4	-	-	138	437
12	Willow Roa	N/O NB US-101 Ramps	5	15	54,500	40	0	2.0%	1.0%	69.0	79	248	786	2,485
13	Willow Roa	Between NB US-101 Ramps and SB US-101 Ramps	6	5	45,300	40	0	2.0%	1.0%	68.2	66	207	655	2,073
14	Willow Roa	Between SB US-101 Ramps and Bay Road	4	13	39,400	25	0	2.0%	1.0%	64.0	-	80	253	800
15	Willow Roa	S/O Bay Road	4	10	8,300	25	0	2.0%	1.0%	57.3	-	-	53	168
16	Manhattan	W/O Euclid Avenue	2	0	2,600	25	0	2.0%	1.0%	52.1	-	-	-	51
17	Manhattan	Between Euclid Avenue and O'Conner Street	2	0	3,800	25	0	2.0%	1.0%	53.7	-	-	-	75
18	Manhattan	Between O'Conner Street and Woodland Avenue	2	0	5,900	25	0	2.0%	1.0%	55.7	-	-	37	116
19	Donohoe S	W/O NB US-101 Ramp On-Ramp	4	10	17,600	25	0	2.0%	1.0%	60.5	-	-	113	356
20	Donohoe S	Between NB US-101 On-Ramp and University Avenue	4	10	32,400	25	0	2.0%	1.0%	63.2	-	66	207	655
21	Donohoe S	Between University Avenue and NB US-101 Off-Ramp	4	13	29,500	25	0	2.0%	1.0%	62.8	-	60	189	599
22	Donohoe S	Between NB US-101 Off-Ramp and Bayshore Road	4	25	30,000	25	0	2.0%	1.0%	62.9	-	62	196	620
23	E Bayshore	E/O Donohoe Street	6	15	14,000	25	0	2.0%	1.0%	59.7	-	-	94	297
24	US 101	S/O University Avenue	6	15	220,417	65	0	2.0%	1.0%	80.1	1,021	3,228	10,206	32,276
25	US 101	Between University Avenue and Willow Road	6	15	215,925	65	0	2.0%	1.0%	80.0	1,000	3,162	9,998	31,618
26	US 101	N/O Willow Road	6	15	202,872	65	0	2.0%	1.0%	79.7	939	2,971	9,394	29,707

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/27/2020
Case Description: Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Multi-Family South	Residential	64.2	59.2	54.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	50	0
Generator	No	50		80.6	50	0
Welder / Torch	No	40		74	50	0
All Other Equipment > 5 HP	No	50	85		50	0
Tractor	No	40	84		50	0
Tractor	No	40	84		50	0
Tractor	No	40	84		50	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Day Lmax	Day Leq	Noise Limits (dBA) Evening Lmax	Evening Leq	Night Lmax	Night Leq
Crane	80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A
Generator	80.6	77.6	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	74	70	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	85	82	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84	80	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84	80	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84	80	N/A	N/A	N/A	N/A	N/A	N/A
Total	85	87.4	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/27/2020
Case Description: Demolition

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Multi-Family South	Residential	64.2	59.2	54.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	50	0
Excavator	No	40		80.7	50	0
Excavator	No	40		80.7	50	0
Dozer	No	40		81.7	50	0
Dozer	No	40		81.7	50	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Day Lmax	Day Leq	Noise Limits (dBA) Evening Lmax	Evening Leq	Night Lmax	Night Leq
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A
Total	81.7	84.1	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/27/2020
Case Description: Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Multi-Family South	Residential	64.2	59.2	54.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	50	0
Excavator	No	40		80.7	50	0
Grader	No	40	85		50	0
Dozer	No	40		81.7	50	0
Scraper	No	40		83.6	50	0
Scraper	No	40		83.6	50	0
Tractor	No	40	84		50	0
Tractor	No	40	84		50	0

Results

Equipment		Calculated (dBA) *Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Excavator		80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A
Grader		85	81	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A
Scraper		83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A
Scraper		83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		84	80	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		84	80	N/A	N/A	N/A	N/A	N/A	N/A
	Total	85	88.2	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/27/2020
Case Description: Paving

		---- Receptor #1 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Multi-Family South	Residential	64.2	59.2	54.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	50	0
Pavement Scarafier	No	20		89.5	50	0
Paver	No	50		77.2	50	0
Paver	No	50		77.2	50	0
Roller	No	20		80	50	0
Roller	No	20		80	50	0

				Results					
		Calculated (dBA)		Noise Limits (dBA)					
				Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver		77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier		89.5	82.5	N/A	N/A	N/A	N/A	N/A	N/A
Paver		77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A
Paver		77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A
Roller		80	73	N/A	N/A	N/A	N/A	N/A	N/A
Roller		80	73	N/A	N/A	N/A	N/A	N/A	N/A
	Total	89.5	84.7	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/27/2020
Case Description: Site Preparation

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Multi-Family South	Residential	64.2	59.2	54.2

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Tractor	No	40	84		50	0
Tractor	No	40	84		50	0
Tractor	No	40	84		50	0
Tractor	No	40	84		50	0
Dozer	No	40		81.7	50	0
Dozer	No	40		81.7	50	0
Dozer	No	40		81.7	50	0

Results

		Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Tractor		84	80	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		84	80	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		84	80	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		84	80	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A
	Total	84	87.6	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Appendix H

Traffic Model Outputs

Woodland Park Euclid Improvements TIA

Vistro File: C:\...\01 - Existing Baseline.vistro
Report File: C:\...\01 - Existing AM.pdf

Scenario 1 Existing AM
8/11/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	University Ave/Bayfront Expy	Signalized	HCM 6th Edition	NB Left	0.714	20.3	C
11	Willow Rd/NB US-101 Ramps	Signalized	HCM 6th Edition	WB Right	0.752	41.3	D
12	Willow Rd/SB US-101 Ramps	Signalized	HCM 6th Edition	EB Left	0.785	8.9	A
13	Willow Rd/Bay Rd	Signalized	HCM 6th Edition	EB Left	0.792	26.2	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: University Ave/Bayfront Expy

Control Type:	Signalized	Delay (sec / veh):	20.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.714

Intersection Setup

Name	University Ave		Bayfront Expy		Bayfront Expy	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	2	0	1	2	0
Entry Pocket Length [ft]	175.00	1260.00	100.00	430.00	830.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	University Ave		Bayfront Expy		Bayfront Expy	
Base Volume Input [veh/h]	143	394	872	85	1447	3243
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	143	394	872	85	1447	3243
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	99	218	21	362	811
Total Analysis Volume [veh/h]	143	394	872	85	1447	3243
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1		0		1	
v_di, Inbound Pedestrian Volume crossing m	1		0		1	
v_co, Outbound Pedestrian Volume crossing	1		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		9		16	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	180
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	113.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Split	Overlap	Permissive	Permissive	Protected	Permissive
Signal Group	4	4	6	0	5	2
Auxiliary Signal Groups		4,5				
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	12	12	10	0	11	10
Maximum Green [s]	15	15	60	0	100	135
Amber [s]	3.0	3.0	5.0	0.0	3.0	5.4
All red [s]	1.0	1.0	1.0	0.0	0.5	0.5
Split [s]	38	38	53	0	89	142
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	5	5	5	0	0	10
Pedestrian Clearance [s]	29	29	35	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	4.0	0.0	1.5	3.9
Minimum Recall	No	No	Yes		No	Yes
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	180	180	180	180	180	180
L, Total Lost Time per Cycle [s]	4.00	3.50	6.00	6.00	3.50	5.90
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	0.00	4.00	4.00	1.50	3.90
g_i, Effective Green Time [s]	12	138	33	33	122	158
g / C, Green / Cycle	0.07	0.77	0.18	0.18	0.68	0.88
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.17	0.05	0.42	0.64
s, saturation flow rate [veh/h]	3459	4220	5094	1553	3459	5094
c, Capacity [veh/h]	231	3230	926	282	2340	4474
d1, Uniform Delay [s]	81.79	5.46	72.73	63.68	16.20	3.67
k, delay calibration	0.04	0.04	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.01	0.01	2.31	0.22	1.24	1.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.12	0.94	0.30	0.62	0.72
d, Delay for Lane Group [s/veh]	82.80	5.47	75.04	63.90	17.44	4.72
Lane Group LOS	F	A	E	E	B	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.28	1.25	13.22	3.35	15.79	7.26
50th-Percentile Queue Length [ft/ln]	82.03	31.21	330.59	83.81	394.76	181.50
95th-Percentile Queue Length [veh/ln]	5.91	2.25	19.19	6.03	22.31	11.68
95th-Percentile Queue Length [ft/ln]	147.66	56.17	479.68	150.86	557.68	291.97

Movement, Approach, & Intersection Results

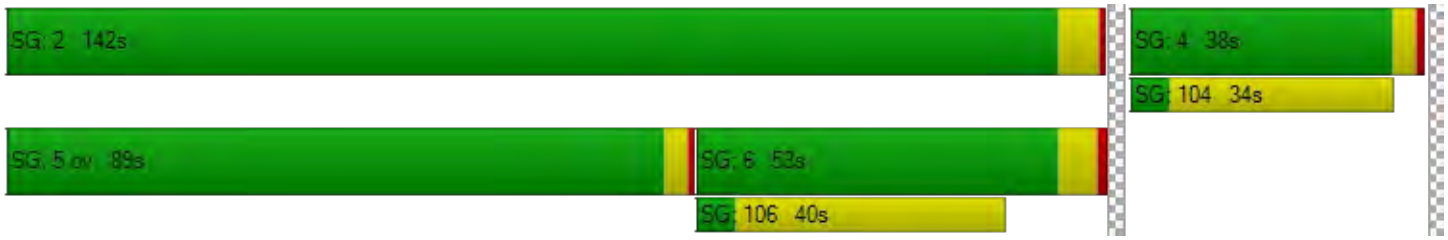
d_M, Delay for Movement [s/veh]	82.80	5.47	75.04	63.90	17.44	4.72
Movement LOS	F	A	E	E	B	A
d_A, Approach Delay [s/veh]	26.06		74.05		8.65	
Approach LOS	C		E		A	
d_I, Intersection Delay [s/veh]	20.28					
Intersection LOS	C					
Intersection V/C	0.714					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	3596.94	0.00	622.96
d_p, Pedestrian Delay [s]	81.23	0.00	81.23
l_p,int, Pedestrian LOS Score for Intersection	2.964	0.000	3.969
Crosswalk LOS	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	378	522	1512
d_b, Bicycle Delay [s]	59.21	49.36	5.40
l_b,int, Bicycle LOS Score for Intersection	1.560	2.086	4.139
Bicycle LOS	A	B	D

Sequence

Ring 1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Willow Rd/NB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	41.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.752

Intersection Setup

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	405.00	100.00	100.00	100.00	175.00	100.00	195.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Base Volume Input [veh/h]	0	1088	389	0	1873	637	0	0	0	480	0	864
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1088	389	0	1873	637	0	0	0	480	0	864
Peak Hour Factor	1.0000	0.9700	0.9700	1.0000	0.9700	0.9700	1.0000	1.0000	1.0000	0.9700	1.0000	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	280	100	0	483	164	0	0	0	124	0	223
Total Analysis Volume [veh/h]	0	1122	401	0	1931	657	0	0	0	495	0	891
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	3			0			0			7		
v_ci, Inbound Pedestrian Volume crossing mi	7			0			0			3		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	24			16			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	38.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	0	0	0	3	0	3
Auxiliary Signal Groups			3,6			2,3						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	4	4	0	4	4	0	0	0	4	0	4
Maximum Green [s]	0	35	35	0	35	35	0	0	0	24	0	24
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	0.0	0.0	0.0	3.0	0.0	3.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0
Split [s]	0	57	57	0	57	57	0	0	0	23	0	23
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	30	30	0	7	7	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No					No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	0.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall		Yes	Yes		Yes	Yes				No		
Maximum Recall		No	No		No	No				No		
Pedestrian Recall		No	No		No	No				No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R		L	R
C, Cycle Length [s]	80	80	80	80		80	80
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00		5.00	5.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00		3.00	3.00
g_i, Effective Green Time [s]	53	75	53	75		18	18
g / C, Green / Cycle	0.66	0.94	0.66	0.94		0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.22	0.26	0.38	0.42		0.14	0.32
s, saturation flow rate [veh/h]	5094	1555	5094	1548		3459	2813
c, Capacity [veh/h]	3363	1457	3363	1451		781	635
d1, Uniform Delay [s]	5.91	0.21	7.43	0.27		27.94	30.93
k, delay calibration	0.50	0.28	0.50	0.50		0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	0.27	0.26	0.72	1.02		0.32	181.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.28	0.57	0.45		0.63	1.40
d, Delay for Lane Group [s/veh]	6.18	0.47	8.15	1.29		28.26	212.74
Lane Group LOS	A	A	A	A		C	F
Critical Lane Group	No	No	Yes	No		No	Yes
50th-Percentile Queue Length [veh/ln]	2.21	0.11	4.81	0.41		4.10	21.83
50th-Percentile Queue Length [ft/ln]	55.13	2.68	120.24	10.30		102.62	545.69
95th-Percentile Queue Length [veh/ln]	3.97	0.19	8.41	0.74		7.39	34.48
95th-Percentile Queue Length [ft/ln]	99.23	4.82	210.15	18.55		184.72	861.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	6.18	0.47	0.00	8.15	1.29	0.00	0.00	0.00	28.26	0.00	212.74
Movement LOS		A	A		A	A				C		F
d_A, Approach Delay [s/veh]	4.68			6.40			0.00			146.85		
Approach LOS	A			A			A			F		
d_I, Intersection Delay [s/veh]	41.34											
Intersection LOS	D											
Intersection V/C	0.752											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	579.15
d_p, Pedestrian Delay [s]	0.00	0.00	32.40	32.40
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.061	2.703
Crosswalk LOS	F	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1323	1323	0	450
d_b, Bicycle Delay [s]	4.65	4.63	40.00	24.03
l_b,int, Bicycle LOS Score for Intersection	2.397	2.983	4.132	1.560
Bicycle LOS	B	C	D	A

Sequence

Ring 1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Willow Rd/SB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	8.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.785

Intersection Setup

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	2	0	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	300.00	100.00	100.00	100.00	150.00	100.00	170.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			35.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Base Volume Input [veh/h]	0	972	784	0	1279	1074	516	0	338	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	972	784	0	1279	1074	516	0	338	0	0	0
Peak Hour Factor	1.0000	0.9700	0.9700	1.0000	0.9700	0.9700	0.9700	1.0000	0.9700	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	251	202	0	330	277	133	0	87	0	0	0
Total Analysis Volume [veh/h]	0	1002	808	0	1319	1107	532	0	348	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			2			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			2			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	23			16			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	54.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	4	0	0	0	0	0
Auxiliary Signal Groups			4,6			2,4						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	4	4	0	4	4	4	0	0	0	0	0
Maximum Green [s]	0	35	35	0	35	35	50	0	0	0	0	0
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	58	58	0	58	58	22	0	0	0	0	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	7	7	0	32	32	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	3.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		Yes	Yes		Yes	Yes	No					
Maximum Recall		No	No		No	No	No					
Pedestrian Recall		No	No		No	No	No					
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	L	R	
C, Cycle Length [s]	80	80	80	80	80	80	
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00	5.00	5.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00	3.00	3.00	
g_i, Effective Green Time [s]	57	75	57	75	14	14	
g / C, Green / Cycle	0.71	0.94	0.71	0.94	0.18	0.18	
(v / s)_i Volume / Saturation Flow Rate	0.20	0.52	0.26	0.71	0.15	0.12	
s, saturation flow rate [veh/h]	5094	1543	5094	1555	3459	2813	
c, Capacity [veh/h]	3614	1447	3614	1457	612	498	
d1, Uniform Delay [s]	4.21	0.32	4.56	0.51	32.07	30.97	
k, delay calibration	0.50	0.31	0.50	0.50	0.04	0.04	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.19	0.96	0.29	3.77	1.53	0.67	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.28	0.56	0.36	0.76	0.87	0.70	
d, Delay for Lane Group [s/veh]	4.40	1.28	4.85	4.29	33.60	31.64	
Lane Group LOS	A	A	A	A	C	C	
Critical Lane Group	No	No	No	Yes	Yes	No	
50th-Percentile Queue Length [veh/ln]	1.45	0.39	2.07	1.53	4.91	3.07	
50th-Percentile Queue Length [ft/ln]	36.19	9.69	51.75	38.18	122.83	76.69	
95th-Percentile Queue Length [veh/ln]	2.61	0.70	3.73	2.75	8.55	5.52	
95th-Percentile Queue Length [ft/ln]	65.14	17.45	93.16	68.73	213.70	138.04	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	4.40	1.28	0.00	4.85	4.29	33.60	0.00	31.64	0.00	0.00	0.00
Movement LOS		A	A		A	A	C		C			
d_A, Approach Delay [s/veh]	3.01			4.59			32.82			0.00		
Approach LOS	A			A			C			A		
d_I, Intersection Delay [s/veh]	8.89											
Intersection LOS	A											
Intersection V/C	0.785											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	73.99	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.40	32.40
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.749	2.208
Crosswalk LOS	F	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1348	1348	425	0
d_b, Bicycle Delay [s]	4.31	4.29	24.81	40.00
l_b,int, Bicycle LOS Score for Intersection	2.555	2.894	1.560	4.132
Bicycle LOS	B	C	A	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Willow Rd/Bay Rd

Control Type:	Signalized	Delay (sec / veh):	26.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.792

Intersection Setup

Name	Willow Rd		Willow Rd			
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	25.00	100.00	240.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Willow Rd		Willow Rd			
Base Volume Input [veh/h]	64	1370	1167	450	386	76
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	1370	1167	450	386	76
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	361	307	118	102	20
Total Analysis Volume [veh/h]	67	1442	1228	474	406	80
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		1		1	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		1	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	24		15		3	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	60.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	5	2	6	0	4	0
Auxiliary Signal Groups						
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	9	10	8	0	10	0
Maximum Green [s]	16	36	36	0	22	0
Amber [s]	3.0	4.5	4.5	0.0	3.2	0.0
All red [s]	0.5	1.0	1.0	0.0	1.0	0.0
Split [s]	13	58	45	0	22	0
Vehicle Extension [s]	3.0	5.0	3.0	0.0	3.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	31	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	1.5	3.5	3.5	0.0	2.2	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	Yes	Yes		No	
Pedestrian Recall	No	No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	3.50	5.50	5.50	5.50	4.20	4.20
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.50	3.50	3.50	3.50	2.20	2.20
g_i, Effective Green Time [s]	7	53	42	42	18	18
g / C, Green / Cycle	0.09	0.66	0.52	0.52	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.04	0.45	0.38	0.34	0.25	0.06
s, saturation flow rate [veh/h]	1603	3204	3204	1384	1603	1409
c, Capacity [veh/h]	141	2102	1680	726	357	314
d1, Uniform Delay [s]	34.74	8.61	14.69	13.55	31.11	25.61
k, delay calibration	0.11	0.50	0.50	0.50	0.37	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.46	1.85	2.84	4.54	84.49	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.69	0.73	0.65	1.14	0.25
d, Delay for Lane Group [s/veh]	37.20	10.45	17.53	18.09	115.60	26.04
Lane Group LOS	D	B	B	B	F	C
Critical Lane Group	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.30	6.48	8.31	6.36	14.99	1.26
50th-Percentile Queue Length [ft/ln]	32.43	162.02	207.71	158.97	374.81	31.42
95th-Percentile Queue Length [veh/ln]	2.33	10.66	13.04	10.49	22.82	2.26
95th-Percentile Queue Length [ft/ln]	58.37	266.40	325.89	262.36	570.57	56.56

Movement, Approach, & Intersection Results

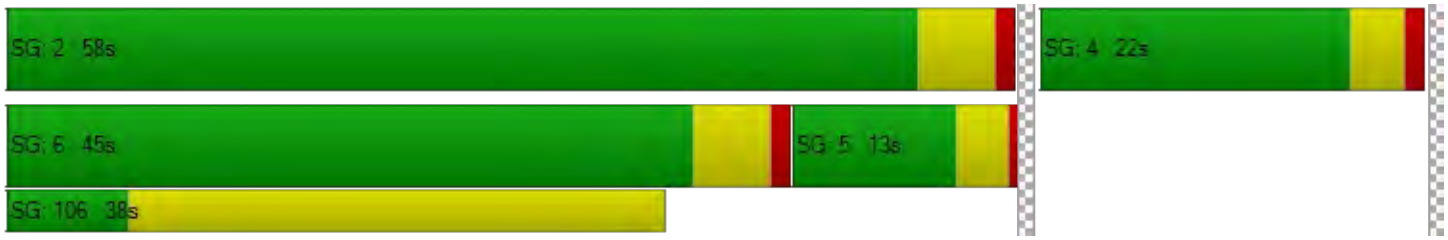
d_M, Delay for Movement [s/veh]	37.20	10.45	17.53	18.09	115.60	26.04
Movement LOS	D	B	B	B	F	C
d_A, Approach Delay [s/veh]	11.64		17.69		100.86	
Approach LOS	B		B		F	
d_I, Intersection Delay [s/veh]	26.15					
Intersection LOS	C					
Intersection V/C	0.792					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	4410.65
d_p, Pedestrian Delay [s]	0.00	0.00	29.76
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.267
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1313	988	445
d_b, Bicycle Delay [s]	4.78	10.33	24.22
l_b,int, Bicycle LOS Score for Intersection	2.805	2.964	1.560
Bicycle LOS	C	C	A

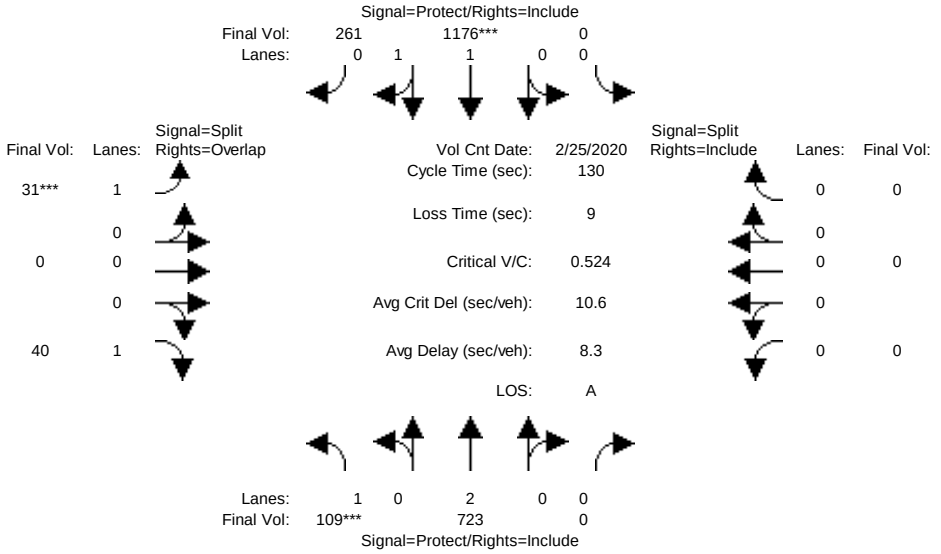
Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #2: University Avenue/O'Brien Drive



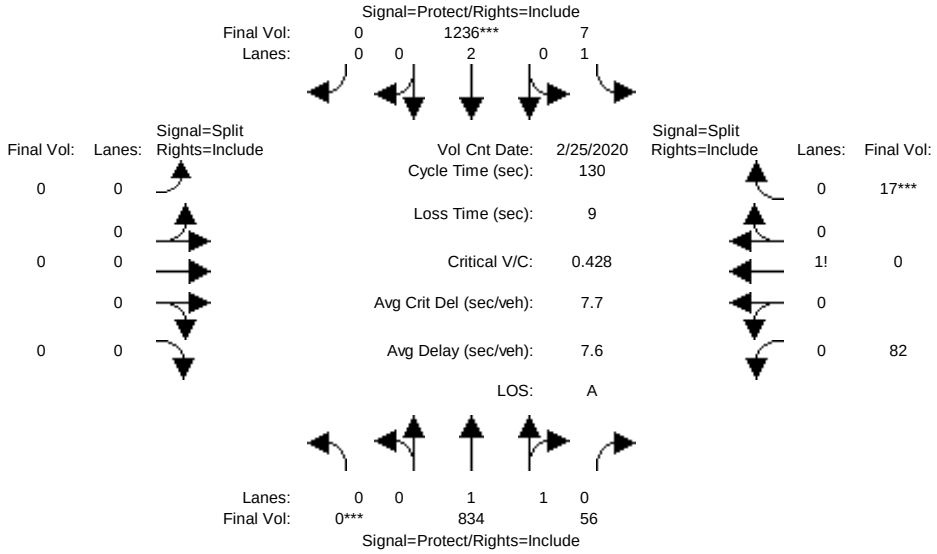
Street Name:	University Avenue						O'Brien Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	10	10	0	8	8	6	6	6	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	98	651	0	0	1058	235	28	0	36	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	98	651	0	0	1058	235	28	0	36	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	98	651	0	0	1058	235	28	0	36	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	109	723	0	0	1176	261	31	0	40	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	723	0	0	1176	261	31	0	40	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	109	723	0	0	1176	261	31	0	40	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.92	0.91	0.92	1.00	0.82	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.63	0.37	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	2867	637	1745	0	1562	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.20	0.00	0.00	0.41	0.41	0.02	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.11	0.88	0.00	0.00	0.77	0.77	0.05	0.00	0.16	0.00	0.00	0.00
Volume/Cap:	0.53	0.23	0.00	0.00	0.53	0.53	0.39	0.00	0.16	0.00	0.00	0.00
Uniform Del:	54.4	1.1	0.0	0.0	5.8	5.8	60.2	0.0	47.1	0.0	0.0	0.0
IncremntDel:	2.7	0.0	0.0	0.0	0.2	0.2	3.1	0.0	0.3	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	57.0	1.1	0.0	0.0	6.0	6.0	63.3	0.0	47.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.0	1.1	0.0	0.0	6.0	6.0	63.3	0.0	47.4	0.0	0.0	0.0
LOS by Move:	E	A	A	A	A	A	E	A	D	A	A	A
HCM2kAvgQ:	101	58	0	0	295	292	42	0	36	0	0	0

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3: University Avenue/Notre Dame Avenue

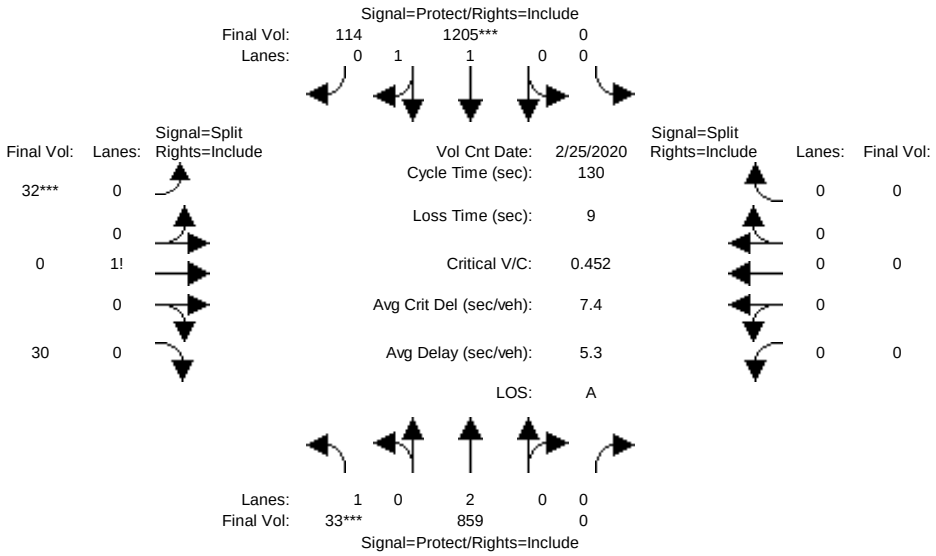


Street Name:	University Avenue						Notre Dame Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	8	8	4	8	0	0	0	0	4	0	4
Y+R:	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	0	734	49	6	1088	0	0	0	0	72	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	734	49	6	1088	0	0	0	0	72	0	15
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	734	49	6	1088	0	0	0	0	72	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	0	834	56	7	1236	0	0	0	0	82	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	834	56	7	1236	0	0	0	0	82	0	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	834	56	7	1236	0	0	0	0	82	0	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.93	0.95	0.95	1.00	1.00	1.00	1.00	0.94	1.00	0.94
Lanes:	0.00	1.87	0.13	1.00	2.00	0.00	0.00	0.00	0.00	0.83	0.00	0.17
Final Sat.:	0	3352	224	1805	3610	0	0	0	0	1475	0	307
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.00	0.34	0.00	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:	****				****							****
Green/Cycle:	0.00	0.71	0.71	0.09	0.80	0.00	0.00	0.00	0.00	0.13	0.00	0.13
Volume/Cap:	0.00	0.35	0.35	0.04	0.43	0.00	0.00	0.00	0.00	0.43	0.00	0.43
Uniform Del:	0.0	7.1	7.1	54.3	3.9	0.0	0.0	0.0	0.0	52.1	0.0	52.1
IncremntDel:	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	1.3	0.0	1.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	7.2	7.2	54.4	4.0	0.0	0.0	0.0	0.0	53.4	0.0	53.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	7.2	7.2	54.4	4.0	0.0	0.0	0.0	0.0	53.4	0.0	53.4
LOS by Move:	A	A	A	D	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	175	173	6	195	0	0	0	0	100	0	100

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #4: University Avenue/Kavanaugh Drive

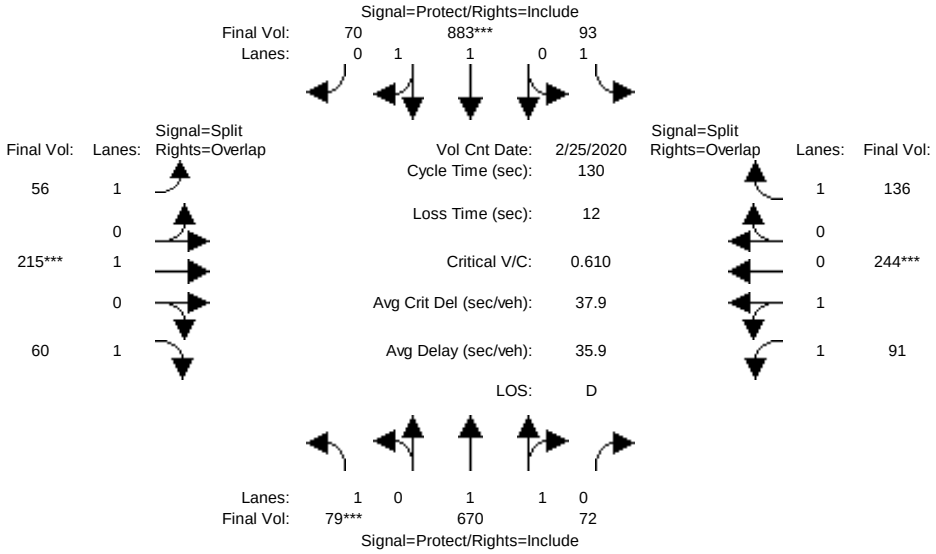


Street Name:	University Avenue						Kavanaugh Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	4	8	0	0	8	8	4	0	4	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	3.5	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	29	756	0	0	1060	100	28	0	26	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	756	0	0	1060	100	28	0	26	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	756	0	0	1060	100	28	0	26	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	33	859	0	0	1205	114	32	0	30	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	859	0	0	1205	114	32	0	30	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	859	0	0	1205	114	32	0	30	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.94	0.93	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.83	0.17	0.52	0.00	0.48	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3254	307	987	0	916	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.24	0.00	0.00	0.37	0.37	0.03	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.04	0.86	0.00	0.00	0.82	0.82	0.07	0.00	0.07	0.00	0.00	0.00
Volume/Cap:	0.45	0.28	0.00	0.00	0.45	0.45	0.45	0.00	0.45	0.00	0.00	0.00
Uniform Del:	61.0	1.7	0.0	0.0	3.4	3.4	57.9	0.0	57.9	0.0	0.0	0.0
IncremntDel:	4.4	0.0	0.0	0.0	0.1	0.1	2.4	0.0	2.4	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	65.4	1.7	0.0	0.0	3.5	3.5	60.3	0.0	60.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.4	1.7	0.0	0.0	3.5	3.5	60.3	0.0	60.3	0.0	0.0	0.0
LOS by Move:	E	A	A	A	A	A	E	A	E	A	A	A
HCM2kAvgQ:	47	85	0	0	201	199	72	0	72	0	0	0

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #5: University Avenue/Bay Road

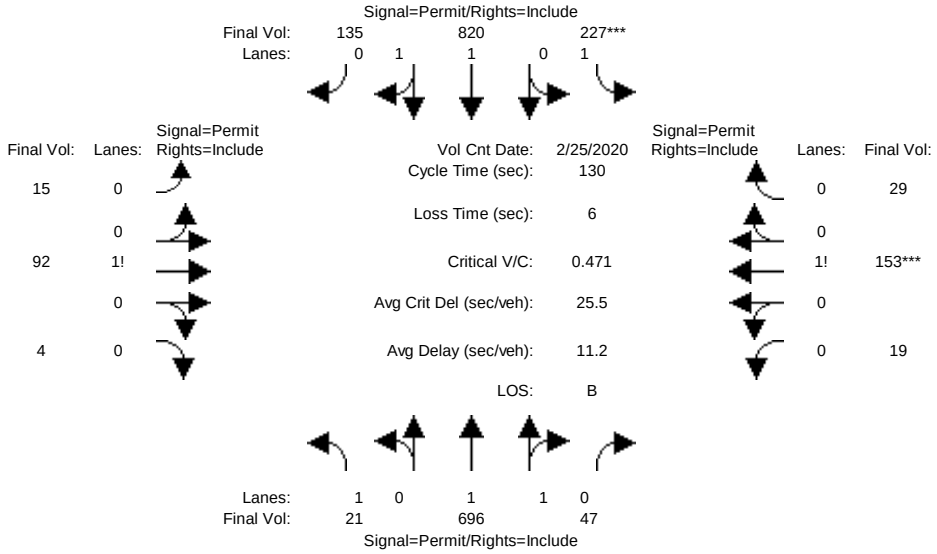


Street Name:	University Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	74	630	68	87	830	66	53	202	56	86	229	128
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	74	630	68	87	830	66	53	202	56	86	229	128
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	630	68	87	830	66	53	202	56	86	229	128
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	79	670	72	93	883	70	56	215	60	91	244	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	670	72	93	883	70	56	215	60	91	244	136
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	79	670	72	93	883	70	56	215	60	91	244	136
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.93	0.95	0.94	0.93	0.95	1.00	0.81	0.99	0.99	0.76
Lanes:	1.00	1.80	0.20	1.00	1.85	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1805	3207	346	1805	3306	263	1805	1900	1533	1875	1875	1443
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.21	0.05	0.27	0.27	0.03	0.11	0.04	0.05	0.13	0.09
Crit Moves:	****				****			****			****	
Green/Cycle:	0.07	0.41	0.41	0.10	0.44	0.44	0.19	0.19	0.26	0.21	0.21	0.31
Volume/Cap:	0.61	0.51	0.51	0.51	0.61	0.61	0.17	0.61	0.15	0.23	0.61	0.30
Uniform Del:	58.6	28.7	28.7	55.5	28.0	28.0	44.5	48.6	37.3	42.3	46.3	33.8
IncremntDel:	8.3	0.3	0.3	2.4	0.7	0.7	0.2	3.1	0.2	0.1	2.0	0.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	66.8	29.0	29.0	57.9	28.7	28.7	44.8	51.7	37.5	42.4	48.3	34.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.8	29.0	29.0	57.9	28.7	28.7	44.8	51.7	37.5	42.4	48.3	34.2
LOS by Move:	E	C	C	E	C	C	D	D	D	D	D	C
HCM2kAvgQ:	78	282	280	103	385	383	48	214	46	76	235	104

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #6: University Avenue/Runnymede Street

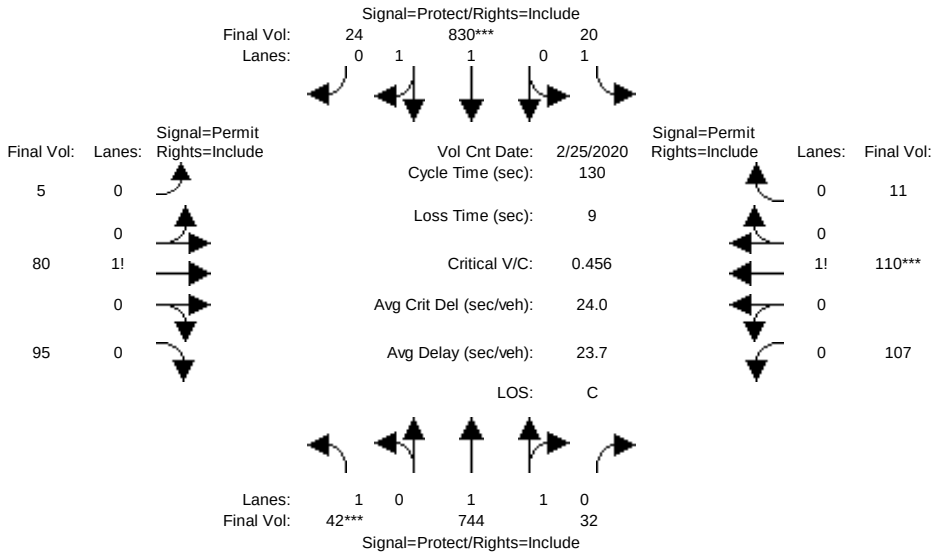


Street Name:	University Avenue						Runnymede Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	8	8	8	8	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	19	619	42	202	730	120	13	82	4	17	136	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	619	42	202	730	120	13	82	4	17	136	26
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	619	42	202	730	120	13	82	4	17	136	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	21	696	47	227	820	135	15	92	4	19	153	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	696	47	227	820	135	15	92	4	19	153	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	696	47	227	820	135	15	92	4	19	153	29
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.27	0.94	0.94	0.34	0.93	0.93	0.95	1.08	0.95	0.95	1.14	0.95
Lanes:	1.00	1.87	0.13	1.00	1.72	0.28	0.15	0.81	0.04	0.11	0.72	0.17
Final Sat.:	515	3346	227	645	3034	499	263	1660	81	196	1569	300
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.21	0.35	0.27	0.27	0.06	0.06	0.06	0.10	0.10	0.10
Crit Moves:				****							****	
Green/Cycle:	0.75	0.75	0.75	0.75	0.75	0.75	0.21	0.21	0.21	0.21	0.21	0.21
Volume/Cap:	0.06	0.28	0.28	0.47	0.36	0.36	0.27	0.27	0.27	0.47	0.47	0.47
Uniform Del:	4.3	5.3	5.3	6.4	5.7	5.7	43.3	43.3	43.3	45.3	45.3	45.3
IncremntDel:	0.1	0.1	0.1	0.7	0.1	0.1	0.4	0.4	0.4	0.8	0.8	0.8
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	4.4	5.3	5.3	7.1	5.8	5.8	43.6	43.6	43.6	46.1	46.1	46.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.4	5.3	5.3	7.1	5.8	5.8	43.6	43.6	43.6	46.1	46.1	46.1
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D
HCM2kAvgQ:	6	122	122	89	169	168	85	95	85	161	189	161

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #7: University Avenue/Bell Street



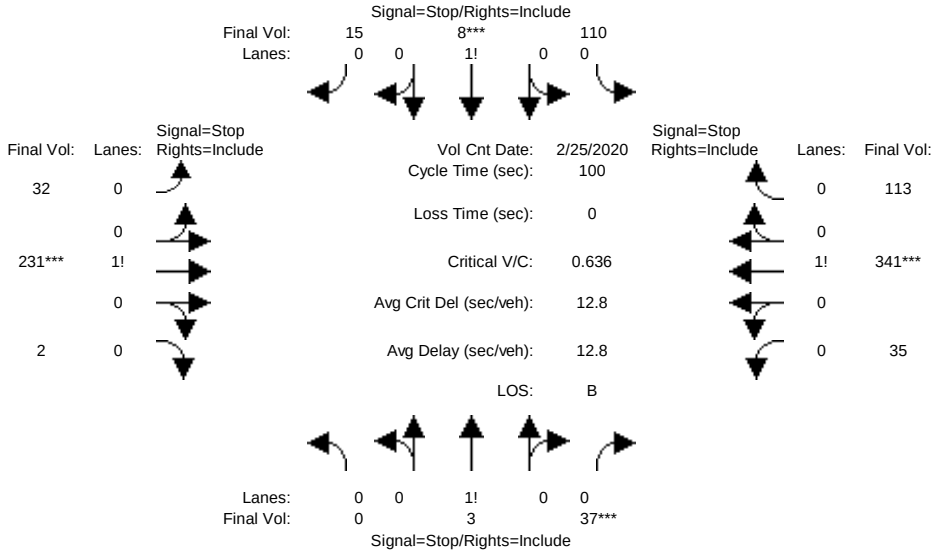
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	37	655	28	18	730	21	4	70	84	94	97	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	655	28	18	730	21	4	70	84	94	97	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	655	28	18	730	21	4	70	84	94	97	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	42	744	32	20	830	24	5	80	95	107	110	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	744	32	20	830	24	5	80	95	107	110	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	42	744	32	20	830	24	5	80	95	107	110	11
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.95	0.92	0.92	0.91	0.73	0.73	0.73
Lanes:	1.00	1.92	0.08	1.00	1.94	0.06	0.03	0.44	0.53	0.47	0.48	0.05
Final Sat.:	1805	3441	147	1805	3495	101	44	771	926	651	672	69
Capacity Analysis Module:												
Vol/Sat:	0.02	0.22	0.22	0.01	0.24	0.24	0.10	0.10	0.10	0.16	0.16	0.16
Crit Moves:	****				****						****	
Green/Cycle:	0.05	0.50	0.50	0.07	0.52	0.52	0.36	0.36	0.36	0.36	0.36	0.36
Volume/Cap:	0.46	0.43	0.43	0.16	0.46	0.46	0.29	0.29	0.29	0.46	0.46	0.46
Uniform Del:	59.9	20.7	20.7	56.7	19.6	19.6	29.7	29.7	29.7	31.9	31.9	31.9
IncremntDel:	3.6	0.2	0.2	0.6	0.2	0.2	0.3	0.3	0.3	0.7	0.7	0.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	63.5	20.9	20.9	57.3	19.8	19.8	30.0	30.0	30.0	32.6	32.6	32.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	63.5	20.9	20.9	57.3	19.8	19.8	30.0	30.0	30.0	32.6	32.6	32.6
LOS by Move:	E	C	C	E	B	B	C	C	C	C	C	C
HCM2kAvgQ:	56	254	254	18	272	272	126	127	125	178	179	179

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #14: Bay Road/Newbridge Street/Ralmar Avenue



Street Name:	Bay Road/Ralmar Avenue						Bay Road/Newbridge Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:30AM												
Base Vol:	0	3	34	100	7	14	29	210	2	32	310	103
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	3	34	100	7	14	29	210	2	32	310	103
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3	34	100	7	14	29	210	2	32	310	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	3	37	110	8	15	32	231	2	35	341	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3	37	110	8	15	32	231	2	35	341	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	3	37	110	8	15	32	231	2	35	341	113
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.08	0.92	0.83	0.06	0.11	0.12	0.87	0.01	0.07	0.70	0.23
Final Sat.:	0	47	537	470	33	66	84	609	6	55	536	178
Capacity Analysis Module:												
Vol/Sat:	xxxx	0.07	0.07	0.23	0.23	0.23	0.38	0.38	0.38	0.64	0.64	0.64
Crit Moves:			****		****			****			****	
Delay/Veh:	0.0	8.6	8.6	10.3	10.3	10.3	10.8	10.8	10.8	14.9	14.9	14.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.6	8.6	10.3	10.3	10.3	10.8	10.8	10.8	14.9	14.9	14.9
LOS by Move:	*	A	A	B	B	B	B	B	B	B	B	B
ApproachDel:		8.6			10.3			10.8			14.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.6			10.3			10.8			14.9	
LOS by Appr:		A			B			B			B	
AllWayAvgQ:	1.4	1.4	1.4	6.1	6.1	6.1	13.7	13.7	13.7	39.0	39.0	39.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #14 Bay Road/Newbridge Street/Ralmar Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Initial Vol:	0	3	34	100	7	14	29	210	2	32	310	103

Major Street Volume: 686
Minor Approach Volume: 121
Minor Approach Volume Threshold: 320

SIGNAL WARRANT DISCLAIMER

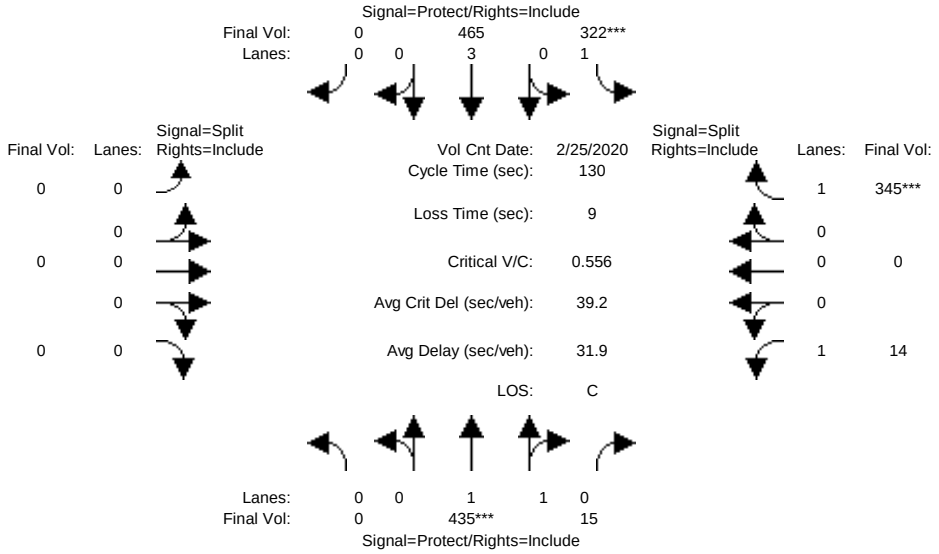
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #17: Donohoe Street/E Bayshore Road

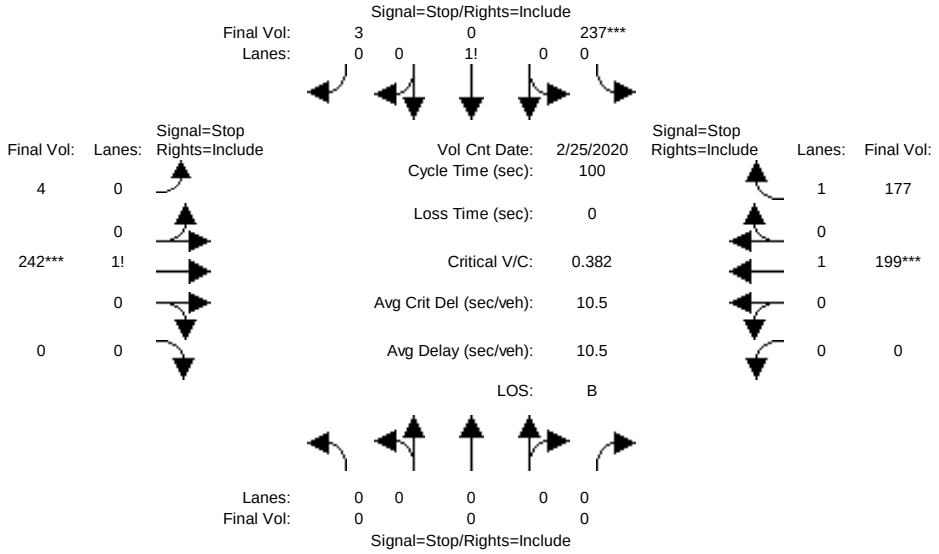


Street Name:	Donohoe Street/E Bayshore Road						Donohoe Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 7:00AM												
Base Vol:	0	374	13	277	400	0	0	0	0	12	0	297
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	374	13	277	400	0	0	0	0	12	0	297
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	374	13	277	400	0	0	0	0	12	0	297
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	0	435	15	322	465	0	0	0	0	14	0	345
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	435	15	322	465	0	0	0	0	14	0	345
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	435	15	322	465	0	0	0	0	14	0	345
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.94	0.95	0.91	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.93	0.07	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3471	121	1805	5187	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.13	0.18	0.09	0.00	0.00	0.00	0.00	0.01	0.00	0.21
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.23	0.23	0.32	0.55	0.00	0.00	0.00	0.00	0.38	0.00	0.38
Volume/Cap:	0.00	0.56	0.56	0.56	0.16	0.00	0.00	0.00	0.00	0.02	0.00	0.56
Uniform Del:	0.0	44.6	44.6	36.5	14.7	0.0	0.0	0.0	0.0	24.8	0.0	31.3
IncremntDel:	0.0	0.9	0.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	45.5	45.5	37.7	14.7	0.0	0.0	0.0	0.0	24.8	0.0	32.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	45.5	45.5	37.7	14.7	0.0	0.0	0.0	0.0	24.8	0.0	32.4
LOS by Move:	A	D	D	D	B	A	A	A	A	C	A	C
HCM2kAvgQ:	0	219	219	271	82	0	0	0	0	8	0	274

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #19: Woodland Avenue/Manhattan Avenue



Street Name:	Manhattan Avenue						Woodland Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:15AM												
Base Vol:	0	0	0	216	0	3	4	220	0	0	181	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	216	0	3	4	220	0	0	181	161
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	216	0	3	4	220	0	0	181	161
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	237	0	3	4	242	0	0	199	177
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	237	0	3	4	242	0	0	199	177
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	237	0	3	4	242	0	0	199	177
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.99	0.00	0.01	0.02	0.98	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	622	0	9	12	671	0	0	646	740
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	0.38	xxxx	0.38	0.36	0.36	xxxx	xxxx	0.31	0.24
Crit Moves:				****				****			****	
Delay/Veh:	0.0	0.0	0.0	11.5	0.0	11.5	10.8	10.8	0.0	0.0	10.4	8.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	11.5	0.0	11.5	10.8	10.8	0.0	0.0	10.4	8.8
LOS by Move:	*	*	*	B	*	B	B	B	*	*	B	A
ApproachDel:	xxxxxx			11.5			10.8			9.7		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			11.5			10.8			9.7		
LOS by Appr:	*			B			B			A		
AllWayAvgQ:	0.0	0.0	0.0	13.4	13.4	13.4	12.8	12.8	12.8	0.0	10.3	7.3

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Woodland Avenue/Manhattan Avenue

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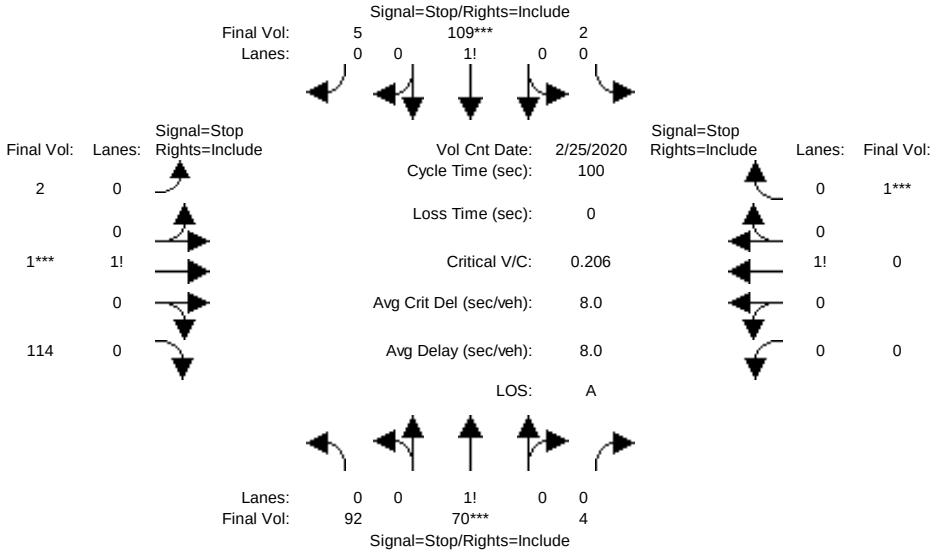
```
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1  0  1
Initial Vol:    0    0     0   216    0     3     4  220     0     0  181   161
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             566
Minor Approach Volume:           219
Minor Approach Volume Threshold: 481
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #20: O'Conner Street/Manhattan Avenue



Street Name:	Manhattan Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:15AM												
Base Vol:	85	64	4	2	100	5	2	1	105	0	0	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	85	64	4	2	100	5	2	1	105	0	0	1
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	64	4	2	100	5	2	1	105	0	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	92	70	4	2	109	5	2	1	114	0	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	70	4	2	109	5	2	1	114	0	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	70	4	2	109	5	2	1	114	0	0	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.55	0.42	0.03	0.02	0.93	0.05	0.02	0.01	0.97	0.00	0.00	1.00
Final Sat.:	448	338	21	15	763	38	16	8	841	0	0	830
Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.21	0.14	0.14	0.14	0.14	0.14	0.14	xxxx	xxxx	0.00
Crit Moves:		****			****			****				****
Delay/Veh:	8.4	8.4	8.4	8.0	8.0	8.0	7.5	7.5	7.5	0.0	0.0	7.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.4	8.4	8.4	8.0	8.0	8.0	7.5	7.5	7.5	0.0	0.0	7.0
LOS by Move:	A	A	A	A	A	A	A	A	A	*	*	A
ApproachDel:		8.4			8.0			7.5			7.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.4			8.0			7.5			7.0	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	6.1	6.1	6.1	3.9	3.9	3.9	3.5	3.5	3.5	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #20 O'Conner Street/Manhattan Avenue

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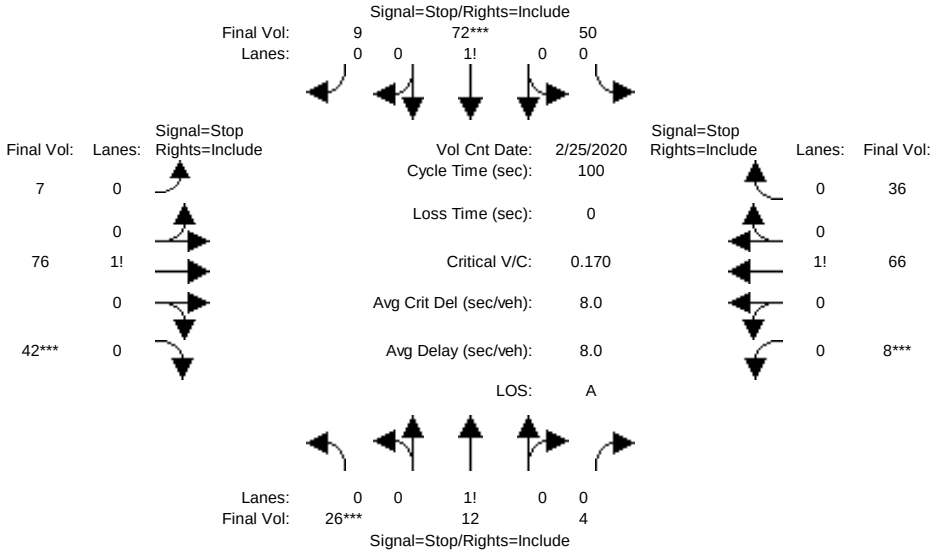
```
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  0  0  0  1
Initial Vol:   85   64     4     2  100     5     2    1   105     0    0     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             260
Minor Approach Volume:           108
Minor Approach Volume Threshold: 579
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #21: O'Conner Street/Euclid Avenue



Street Name:	Euclid Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:45AM												
Base Vol:	24	11	4	46	66	8	6	70	39	7	61	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	11	4	46	66	8	6	70	39	7	61	33
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	11	4	46	66	8	6	70	39	7	61	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	26	12	4	50	72	9	7	76	42	8	66	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	12	4	50	72	9	7	76	42	8	66	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	12	4	50	72	9	7	76	42	8	66	36
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.28	0.10	0.38	0.55	0.07	0.05	0.61	0.34	0.07	0.60	0.33
Final Sat.:	457	209	76	295	423	51	43	501	279	57	493	267
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.17	0.17	0.17	0.15	0.15	0.15	0.13	0.13	0.13
Crit Moves:	****				****				****	****		
Delay/Veh:	7.9	7.9	7.9	8.3	8.3	8.3	7.9	7.9	7.9	7.9	7.9	7.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.9	7.9	7.9	8.3	8.3	8.3	7.9	7.9	7.9	7.9	7.9	7.9
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.9			8.3			7.9			7.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.9			8.3			7.9			7.9		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	1.4	1.4	1.4	4.6	4.6	4.6	4.1	4.1	4.1	3.6	3.6	3.6

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #21 O'Conner Street/Euclid Avenue

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0	0		0 0 1! 0	0		0 0 1! 0	0		0 0 1! 0	0	
Initial Vol:	24	11	4	46	66	8	6	70	39	7	61	33

Major Street Volume: 216
Minor Approach Volume: 120
Minor Approach Volume Threshold: 628

SIGNAL WARRANT DISCLAIMER

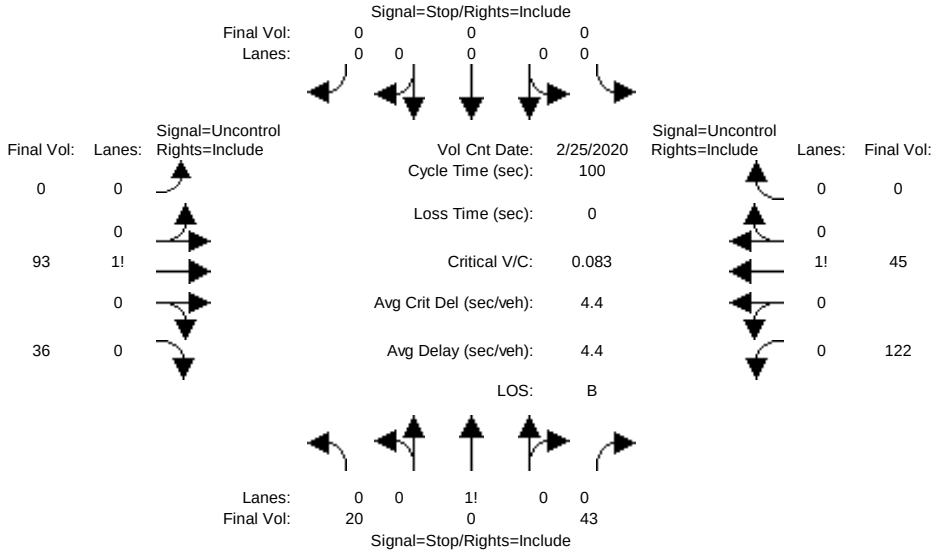
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #22: W Bayshore Road/Euclid Avenue



Street Name:	Euclid Avenue						W Bayshore Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 25 Feb 2020 << 7:00AM												
Base Vol:	15	0	33	0	0	0	0	71	27	93	34	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	0	33	0	0	0	0	71	27	93	34	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	0	33	0	0	0	0	71	27	93	34	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
PHF Volume:	20	0	43	0	0	0	0	93	36	122	45	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	20	0	43	0	0	0	0	93	36	122	45	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	401	401	112	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	129	xxxx	xxxxx
Potent Cap.:	609	541	946	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1469	xxxx	xxxxx
Move Cap.:	568	493	945	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1469	xxxx	xxxxx
Volume/Cap:	0.03	0.00	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	6.8	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	783	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		10.0		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B		*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

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Intersection #22 W Bayshore Road/Euclid Avenue

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	15	0	33	0	0	0	0	71	27	93	34	0
ApproachDel:	10.0			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=48]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=273]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #22 W Bayshore Road/Euclid Avenue

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	15	0	33	0	0	0	0	71	27	93	34	0

Major Street Volume: 225
Minor Approach Volume: 48
Minor Approach Volume Threshold: 617

SIGNAL WARRANT DISCLAIMER
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8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	6.0	0.5
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.6	26.0	23.8
Total Delay (hr)	0.1	0.8	6.0	7.5	8.8	0.7	2.3	2.8	1.1	1.0	58.4	4.7
Total Del/Veh (s)	59.0	31.6	54.2	80.9	96.7	9.0	86.6	25.5	9.0	237.7	254.9	239.7
Avg Speed (mph)	4	6	4	3	2	11	2	6	11	5	5	5
Vehicles Entered	5	88	398	323	318	280	94	384	425	14	802	68

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	6.6
Denied Del/Veh (s)	7.3
Total Delay (hr)	94.0
Total Del/Veh (s)	104.0
Avg Speed (mph)	4
Vehicles Entered	3199

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	4.3	2.1	8.2	1.1	13.2	26.5	55.3
Total Del/Veh (s)	57.7	24.0	30.6	9.8	77.2	87.1	54.7
Avg Speed (mph)	16	22	7	12	6	6	9
Vehicles Entered	256	304	952	387	607	1079	3585

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.9	1.0	3.6	0.6	0.6	0.6	0.0	0.0	0.0
Total Delay (hr)	4.0	0.9	0.4	0.2	1.3	1.9	0.8	6.1	0.1	12.7	3.8	0.7
Total Del/Veh (s)	38.9	38.0	25.5	55.0	54.3	21.9	69.4	31.6	28.6	257.5	18.1	7.1
Avg Speed (mph)	3	3	5	6	6	11	16	20	20	1	10	14
Vehicles Entered	368	87	62	11	84	306	39	662	13	169	739	359

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.6
Total Delay (hr)	32.8
Total Del/Veh (s)	39.9
Avg Speed (mph)	13
Vehicles Entered	2899

15: NB US 101 On-ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	All
Denied Delay (hr)	3.0	2.9	0.0	0.0	5.9
Denied Del/Veh (s)	21.4	22.5	0.0	0.0	14.8
Total Delay (hr)	3.4	0.5	6.4	0.1	10.4
Total Del/Veh (s)	24.3	4.1	66.9	2.8	26.1
Avg Speed (mph)	8	16	4	19	8
Vehicles Entered	501	452	336	132	1421

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	53.4	1.2	12.1	2.9	6.8	0.0	0.1	76.5
Denied Del/Veh (s)	0.0	192.0	160.7	118.2	147.7	128.4		20.5	125.5
Total Delay (hr)	1.7	116.9	3.0	16.7	1.2	2.1	0.0	0.9	142.6
Total Del/Veh (s)	12.0	514.6	468.3	175.8	66.6	44.3		223.1	262.0
Avg Speed (mph)	10	3	3	3	8	10	2	1	3
Vehicles Entered	520	780	22	332	63	171	0	15	1903

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.2	0.4	0.0	0.1	0.1	0.2
Total Delay (hr)	0.2	4.9	2.5	0.4	0.3	8.1
Total Del/Veh (s)	43.2	38.1	29.7	7.2	12.9	28.1
Avg Speed (mph)	14	14	4	9	17	12
Vehicles Entered	14	448	290	200	70	1022

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.7	0.0	0.0	0.9	1.6
Denied Del/Veh (s)	8.2	0.0	0.0	2.3	1.9
Total Delay (hr)	7.5	2.2	1.2	7.8	18.7
Total Del/Veh (s)	88.4	8.9	11.0	20.0	22.4
Avg Speed (mph)	5	18	17	8	11
Vehicles Entered	302	902	377	1408	2989

Total Network Performance

Denied Delay (hr)	91.1
Denied Del/Veh (s)	53.3
Total Delay (hr)	368.9
Total Del/Veh (s)	213.8
Avg Speed (mph)	9
Vehicles Entered	5813

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	38	134	349	225	321	311	246	138	143	193	220	174
Average Queue (ft)	5	52	232	186	285	241	85	60	42	82	88	105
95th Queue (ft)	24	110	393	320	313	333	216	118	100	151	167	173
Link Distance (ft)		337	337		266	266	266			282	282	
Upstream Blk Time (%)			16		52	26	3			0	0	
Queuing Penalty (veh)			43		242	118	15			1	1	
Storage Bay Dist (ft)	200			175				200	200			125
Storage Blk Time (%)		0		24	70			0	0	0	2	4
Queuing Penalty (veh)		0		117	176			0	0	0	9	8

Intersection: 8: University Avenue & Donohoe Street

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	299	1948	1938
Average Queue (ft)	32	879	879
95th Queue (ft)	162	2188	2168
Link Distance (ft)		2291	2291
Upstream Blk Time (%)		12	11
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)	250		
Storage Blk Time (%)		48	
Queuing Penalty (veh)		6	

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	248	288	229	356	366	179	117	250	275	977	978
Average Queue (ft)	108	165	105	233	254	65	61	166	240	625	635
95th Queue (ft)	222	254	201	356	369	136	107	284	327	1212	1198
Link Distance (ft)	3124	3124		354	354	354				939	939
Upstream Blk Time (%)				0	0	0				18	18
Queuing Penalty (veh)				1	2	0				190	193
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		5	0			0	0	2	5	31	
Queuing Penalty (veh)		7	1			0	0	11	35	232	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	174	184	168	346	76	82	289	273	380	368	341	207
Average Queue (ft)	122	147	101	144	71	24	110	160	334	209	170	72
95th Queue (ft)	182	191	168	298	85	60	212	245	431	406	320	161
Link Distance (ft)	159	159	159	645			5041		354	354	354	354
Upstream Blk Time (%)	3	12	3						51	1	0	
Queuing Penalty (veh)	5	20	5						199	5	0	
Storage Bay Dist (ft)					25	175		240				
Storage Blk Time (%)				51	52		1	1				
Queuing Penalty (veh)				153	48		3	4				

Intersection: 15: NB US 101 On-ramp & Donohoe Street

Movement	EB	EB	WB	WB
Directions Served	T	R	L	T
Maximum Queue (ft)	419	336	363	324
Average Queue (ft)	116	103	239	64
95th Queue (ft)	407	374	426	274
Link Distance (ft)	429	429	337	337
Upstream Blk Time (%)	13	10	10	2
Queuing Penalty (veh)	0	0	32	7
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	T	T	T	T	TR	L	L	T	R	L	R
Maximum Queue (ft)	132	156	2656	2654	295	448	668	493	130	8	84
Average Queue (ft)	61	77	1527	1519	189	227	301	198	47	0	30
95th Queue (ft)	124	141	3394	3392	400	497	866	792	100	5	108
Link Distance (ft)	266	266	3057	3057			1046	1046		230	230
Upstream Blk Time (%)			27	27			13	13			4
Queuing Penalty (veh)			0	0			0	0			0
Storage Bay Dist (ft)					245	475			200		
Storage Blk Time (%)				60	1	18	18		0		
Queuing Penalty (veh)				215	5	33	34		0		

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	247	349	162	187	125	46	65
Average Queue (ft)	109	181	90	114	77	10	19
95th Queue (ft)	216	280	161	198	152	34	54
Link Distance (ft)		2014	159	159		999	999
Upstream Blk Time (%)			1	5			
Queuing Penalty (veh)			2	14			
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	1	7		26	0		
Queuing Penalty (veh)	1	17		30	1		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	682	181	282	299	305
Average Queue (ft)	273	15	44	131	140
95th Queue (ft)	678	100	164	362	365
Link Distance (ft)	846	939	939	282	282
Upstream Blk Time (%)	5			14	17
Queuing Penalty (veh)	0			123	153
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 2518

Intersection Analysis Summary

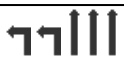
ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	University Ave/Bayfront Expy	Signalized	HCM 6th Edition	NB Right	0.984	120.1	F
11	Willow Rd/NB US-101 Ramps	Signalized	HCM 6th Edition	WB Right	0.615	116.3	F
12	Willow Rd/SB US-101 Ramps	Signalized	HCM 6th Edition	EB Right	0.689	14.5	B
13	Willow Rd/Bay Rd	Signalized	HCM 6th Edition	NB Left	0.671	22.9	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: University Ave/Bayfront Expy

Control Type:	Signalized	Delay (sec / veh):	120.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.984

Intersection Setup

Name	University Ave		Bayfront Expy		Bayfront Expy	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	2	0	1	2	0
Entry Pocket Length [ft]	175.00	1260.00	100.00	430.00	830.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	University Ave		Bayfront Expy		Bayfront Expy	
Base Volume Input [veh/h]	34	1831	3340	30	451	794
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	1831	3340	30	451	794
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	472	861	8	116	205
Total Analysis Volume [veh/h]	35	1888	3443	31	465	819
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		1		0	
v_ci, Inbound Pedestrian Volume crossing mi	1		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	8		23		6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	200
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	198.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Split	Overlap	Permissive	Permissive	Protected	Permissive
Signal Group	4	4	6	0	5	2
Auxiliary Signal Groups		4,5				
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	12	12	10	0	11	10
Maximum Green [s]	15	15	175	0	50	60
Amber [s]	3.0	3.0	5.0	0.0	3.0	5.4
All red [s]	1.0	1.0	1.0	0.0	0.5	0.5
Split [s]	38	38	132	0	30	162
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	5	5	5	0	0	10
Pedestrian Clearance [s]	29	29	35	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	4.0	0.0	1.5	3.9
Minimum Recall	No	No	Yes		No	Yes
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	200	200	200	200	200	200
L, Total Lost Time per Cycle [s]	4.00	3.50	6.00	6.00	3.50	5.90
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	0.00	4.00	4.00	1.50	3.90
g_i, Effective Green Time [s]	34	64	126	126	27	156
g / C, Green / Cycle	0.17	0.32	0.63	0.63	0.13	0.78
(v / s)_i Volume / Saturation Flow Rate	0.01	0.45	0.68	0.02	0.13	0.16
s, saturation flow rate [veh/h]	3459	4151	5094	1558	3459	5094
c, Capacity [veh/h]	586	1336	3212	982	459	3979
d1, Uniform Delay [s]	69.74	67.29	36.97	13.93	86.78	5.71
k, delay calibration	0.04	0.36	0.50	0.50	0.04	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	189.34	39.29	0.06	15.38	0.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	1.41	1.07	0.03	1.01	0.21
d, Delay for Lane Group [s/veh]	69.75	256.62	76.26	13.99	102.15	5.83
Lane Group LOS	E	F	F	B	F	A
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.76	45.92	60.23	0.55	12.73	2.77
50th-Percentile Queue Length [ft/ln]	19.05	1147.99	1505.67	13.65	318.15	69.28
95th-Percentile Queue Length [veh/ln]	1.37	69.05	77.64	0.98	18.69	4.99
95th-Percentile Queue Length [ft/ln]	34.29	1726.19	1941.03	24.57	467.35	124.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	69.75	256.62	76.26	13.99	102.15	5.83
Movement LOS	E	F	F	B	F	A
d_A, Approach Delay [s/veh]	253.22		75.70		40.71	
Approach LOS	F		E		D	
d_I, Intersection Delay [s/veh]	120.07					
Intersection LOS	F					
Intersection V/C	0.984					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	3721.27	0.00	0.00
d_p, Pedestrian Delay [s]	91.20	0.00	91.20
l_p,int, Pedestrian LOS Score for Intersection	3.025	0.000	4.107
Crosswalk LOS	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	340	1260	1561
d_b, Bicycle Delay [s]	69.17	13.85	4.83
l_b,int, Bicycle LOS Score for Intersection	1.560	3.470	2.266
Bicycle LOS	A	C	B

Sequence

Ring 1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Willow Rd/NB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	116.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.615

Intersection Setup

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	405.00	100.00	100.00	100.00	175.00	100.00	195.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Base Volume Input [veh/h]	0	942	136	0	1386	460	0	0	0	350	0	761
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	942	136	0	1386	460	0	0	0	350	0	761
Peak Hour Factor	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	256	37	0	377	125	0	0	0	95	0	207
Total Analysis Volume [veh/h]	0	1024	148	0	1507	500	0	0	0	380	0	827
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	9			0			0			2		
v_ci, Inbound Pedestrian Volume crossing mi	2			0			0			9		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			17			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	145
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	2.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	0	0	0	3	0	3
Auxiliary Signal Groups			3,6			2,3						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	4	4	0	4	4	0	0	0	4	0	4
Maximum Green [s]	0	35	35	0	35	35	0	0	0	24	0	24
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	0.0	0.0	0.0	3.0	0.0	3.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0
Split [s]	0	120	120	0	120	120	0	0	0	25	0	25
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	30	30	0	7	7	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No					No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	0.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall		Yes	Yes		Yes	Yes				No		
Maximum Recall		No	No		No	No				No		
Pedestrian Recall		No	No		No	No				No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R		L	R
C, Cycle Length [s]	145	145	145	145		145	145
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00		5.00	5.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00		3.00	3.00
g_i, Effective Green Time [s]	116	140	116	140		20	20
g / C, Green / Cycle	0.80	0.97	0.80	0.97		0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.20	0.09	0.30	0.32		0.11	0.29
s, saturation flow rate [veh/h]	5094	1559	5094	1547		3459	2813
c, Capacity [veh/h]	4070	1505	4070	1494		478	389
d1, Uniform Delay [s]	3.66	0.10	4.15	0.13		60.44	62.42
k, delay calibration	0.50	0.05	0.50	0.50		0.04	0.31
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	0.15	0.01	0.26	0.60		1.16	512.93
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.10	0.37	0.33		0.80	2.13
d, Delay for Lane Group [s/veh]	3.81	0.11	4.41	0.73		61.60	575.35
Lane Group LOS	A	A	A	A		E	F
Critical Lane Group	No	No	Yes	No		No	Yes
50th-Percentile Queue Length [veh/ln]	2.18	0.01	3.65	0.25		6.82	34.81
50th-Percentile Queue Length [ft/ln]	54.52	0.13	91.15	6.28		170.49	870.16
95th-Percentile Queue Length [veh/ln]	3.93	0.01	6.56	0.45		11.10	55.43
95th-Percentile Queue Length [ft/ln]	98.14	0.24	164.07	11.30		277.56	1385.86

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	3.81	0.11	0.00	4.41	0.73	0.00	0.00	0.00	61.60	0.00	575.35
Movement LOS		A	A		A	A				E		F
d_A, Approach Delay [s/veh]		3.34			3.50			0.00			413.61	
Approach LOS		A			A			A			F	
d_I, Intersection Delay [s/veh]	116.31											
Intersection LOS	F											
Intersection V/C	0.615											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	346.83
d_p, Pedestrian Delay [s]	0.00	0.00	64.72	64.72
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	1.935	2.633
Crosswalk LOS	F	F	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1599	1599	0	276
d_b, Bicycle Delay [s]	2.93	2.95	72.50	53.88
l_b,int, Bicycle LOS Score for Intersection	2.204	2.663	4.132	1.560
Bicycle LOS	B	B	D	A

Sequence

Ring 1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Willow Rd/SB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.689

Intersection Setup

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	2	0	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	300.00	100.00	100.00	100.00	150.00	100.00	170.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			35.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Base Volume Input [veh/h]	0	831	263	0	910	826	247	0	420	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	831	263	0	910	826	247	0	420	0	0	0
Peak Hour Factor	1.0000	0.8800	0.8800	1.0000	0.8800	0.8800	0.8800	1.0000	0.8800	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	236	75	0	259	235	70	0	119	0	0	0
Total Analysis Volume [veh/h]	0	944	299	0	1034	939	281	0	477	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			3			5			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			5			3			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	8			18			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	145
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	99.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	4	0	0	0	0	0
Auxiliary Signal Groups			4,6			2,4						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	4	4	0	4	4	4	0	0	0	0	0
Maximum Green [s]	0	35	35	0	35	35	50	0	0	0	0	0
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	112	112	0	112	112	33	0	0	0	0	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	7	7	0	32	32	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	3.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		Yes	Yes		Yes	Yes	No					
Maximum Recall		No	No		No	No	No					
Pedestrian Recall		No	No		No	No	No					
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	L	R	
C, Cycle Length [s]	145	145	145	145	145	145	
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00	5.00	5.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00	3.00	3.00	
g_i, Effective Green Time [s]	110	140	110	140	26	26	
g / C, Green / Cycle	0.76	0.97	0.76	0.97	0.18	0.18	
(v / s)_i Volume / Saturation Flow Rate	0.19	0.19	0.20	0.61	0.08	0.17	
s, saturation flow rate [veh/h]	5094	1553	5094	1550	3459	2813	
c, Capacity [veh/h]	3855	1499	3855	1496	624	507	
d1, Uniform Delay [s]	5.25	0.11	5.37	0.21	52.95	58.58	
k, delay calibration	0.50	0.06	0.50	0.50	0.04	0.04	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.15	0.04	0.17	2.00	0.19	3.91	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.24	0.20	0.27	0.63	0.45	0.94	
d, Delay for Lane Group [s/veh]	5.40	0.14	5.54	2.22	53.14	62.49	
Lane Group LOS	A	A	A	A	D	E	
Critical Lane Group	No	No	No	Yes	No	Yes	
50th-Percentile Queue Length [veh/ln]	2.64	0.02	2.95	0.83	4.58	8.85	
50th-Percentile Queue Length [ft/ln]	65.91	0.40	73.81	20.82	114.61	221.35	
95th-Percentile Queue Length [veh/ln]	4.75	0.03	5.31	1.50	8.10	13.73	
95th-Percentile Queue Length [ft/ln]	118.65	0.72	132.86	37.48	202.39	343.35	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	5.40	0.14	0.00	5.54	2.22	53.14	0.00	62.49	0.00	0.00	0.00
Movement LOS		A	A		A	A	D		E			
d_A, Approach Delay [s/veh]		4.14			3.96			59.03			0.00	
Approach LOS		A			A			E			A	
d_I, Intersection Delay [s/veh]	14.52											
Intersection LOS	B											
Intersection V/C	0.689											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	64.72	64.72
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.710	1.739
Crosswalk LOS	F	F	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1488	1488	386	0
d_b, Bicycle Delay [s]	4.77	4.79	47.20	72.50
l_b,int, Bicycle LOS Score for Intersection	2.243	2.645	1.560	4.132
Bicycle LOS	B	B	A	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Willow Rd/Bay Rd

Control Type:	Signalized	Delay (sec / veh):	22.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.671

Intersection Setup

Name	Willow Rd		Willow Rd			
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	25.00	100.00	240.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Willow Rd		Willow Rd			
Base Volume Input [veh/h]	17	779	1031	299	315	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	779	1031	299	315	45
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	232	307	89	94	13
Total Analysis Volume [veh/h]	20	927	1227	356	375	54
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		4		2	
v_ci, Inbound Pedestrian Volume crossing mi	0		2		4	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	9		19		6	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	145
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	50.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	5	2	6	0	4	0
Auxiliary Signal Groups						
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	9	10	8	0	10	0
Maximum Green [s]	16	36	36	0	38	0
Amber [s]	3.0	4.5	4.5	0.0	3.2	0.0
All red [s]	0.5	1.0	1.0	0.0	1.0	0.0
Split [s]	20	90	70	0	55	0
Vehicle Extension [s]	3.0	5.0	3.0	0.0	3.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	31	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	1.5	3.5	3.5	0.0	2.2	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	Yes	Yes		No	
Pedestrian Recall	No	No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	145	145	145	145	145	145
L, Total Lost Time per Cycle [s]	3.50	5.50	5.50	5.50	4.20	4.20
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.50	3.50	3.50	3.50	2.20	2.20
g_i, Effective Green Time [s]	5	99	91	91	36	36
g / C, Green / Cycle	0.03	0.68	0.63	0.63	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.01	0.29	0.38	0.26	0.23	0.04
s, saturation flow rate [veh/h]	1603	3204	3204	1379	1603	1406
c, Capacity [veh/h]	55	2192	2004	863	399	350
d1, Uniform Delay [s]	68.36	10.16	16.46	13.52	53.34	42.46
k, delay calibration	0.11	0.50	0.50	0.50	0.22	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.93	0.60	1.41	1.46	18.32	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.42	0.61	0.41	0.94	0.15
d, Delay for Lane Group [s/veh]	72.30	10.76	17.87	14.98	71.66	42.66
Lane Group LOS	E	B	B	B	E	D
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.78	6.45	12.52	6.13	15.41	1.55
50th-Percentile Queue Length [ft/ln]	19.62	161.36	313.02	153.29	385.32	38.85
95th-Percentile Queue Length [veh/ln]	1.41	10.62	18.32	10.19	21.85	2.80
95th-Percentile Queue Length [ft/ln]	35.31	265.52	458.10	254.82	546.28	69.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	72.30	10.76	17.87	14.98	71.66	42.66
Movement LOS	E	B	B	B	E	D
d_A, Approach Delay [s/veh]	12.06		17.22		68.01	
Approach LOS	B		B		E	
d_I, Intersection Delay [s/veh]	22.93					
Intersection LOS	C					
Intersection V/C	0.671					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	681.18
d_p, Pedestrian Delay [s]	0.00	0.00	61.92
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.225
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1166	890	701
d_b, Bicycle Delay [s]	12.68	22.56	30.69
l_b,int, Bicycle LOS Score for Intersection	2.341	2.866	1.560
Bicycle LOS	B	C	A

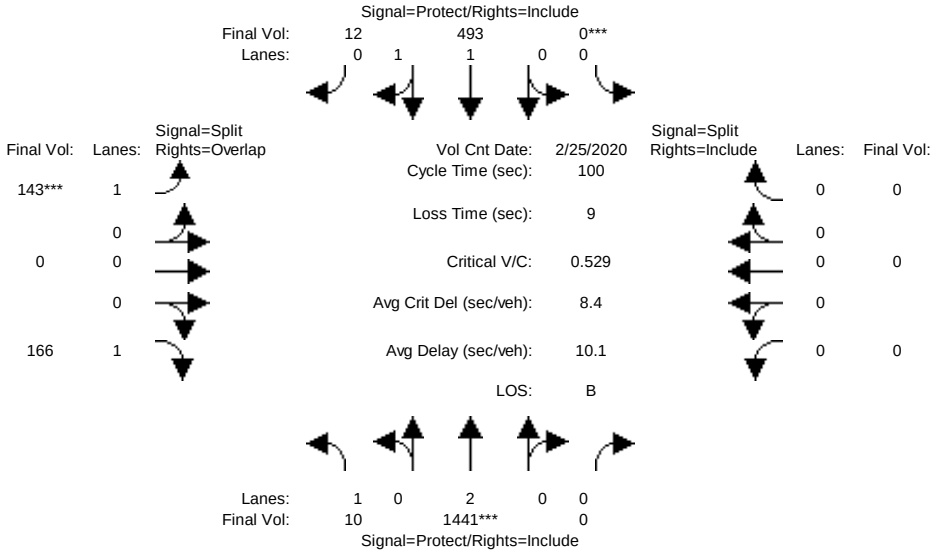
Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #2: University Avenue/O'Brien Drive



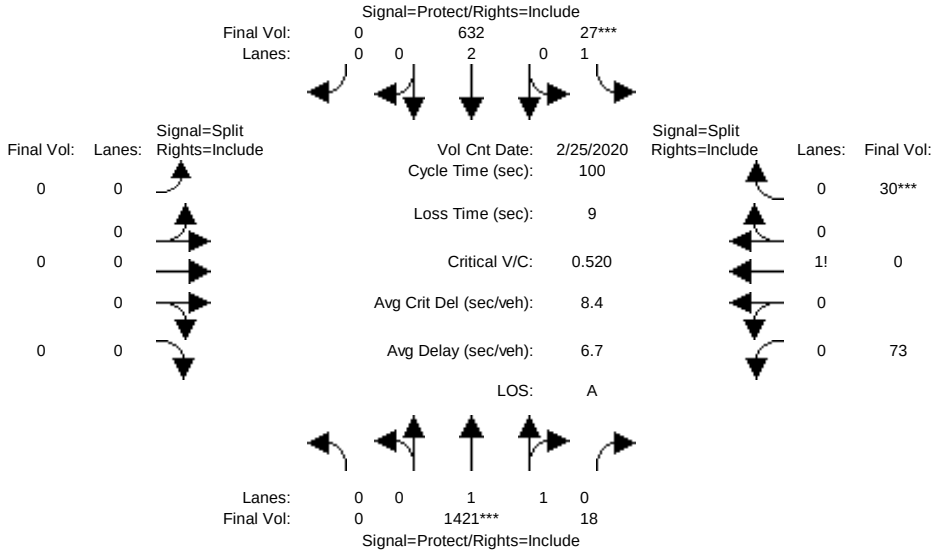
Street Name:	University Avenue						O'Brien Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	10	10	0	8	8	6	6	6	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	9	1355	0	0	463	11	134	0	156	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	1355	0	0	463	11	134	0	156	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	1355	0	0	463	11	134	0	156	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	10	1441	0	0	493	12	143	0	166	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	1441	0	0	493	12	143	0	166	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	1441	0	0	493	12	143	0	166	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.95	0.92	1.00	0.82	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.95	0.05	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3516	84	1745	0	1562	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.40	0.00	0.00	0.14	0.14	0.08	0.00	0.11	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.17	0.76	0.00	0.00	0.59	0.59	0.15	0.00	0.32	0.00	0.00	0.00
Volume/Cap:	0.03	0.53	0.00	0.00	0.24	0.24	0.53	0.00	0.33	0.00	0.00	0.00
Uniform Del:	34.8	5.0	0.0	0.0	9.9	9.9	38.9	0.0	25.7	0.0	0.0	0.0
IncremntDel:	0.0	0.2	0.0	0.0	0.1	0.1	2.0	0.0	0.4	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	34.9	5.2	0.0	0.0	9.9	9.9	40.9	0.0	26.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.9	5.2	0.0	0.0	9.9	9.9	40.9	0.0	26.1	0.0	0.0	0.0
LOS by Move:	C	A	A	A	A	A	D	A	C	A	A	A
HCM2kAvgQ:	6	236	0	0	94	94	117	0	100	0	0	0

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3: University Avenue/Notre Dame Avenue

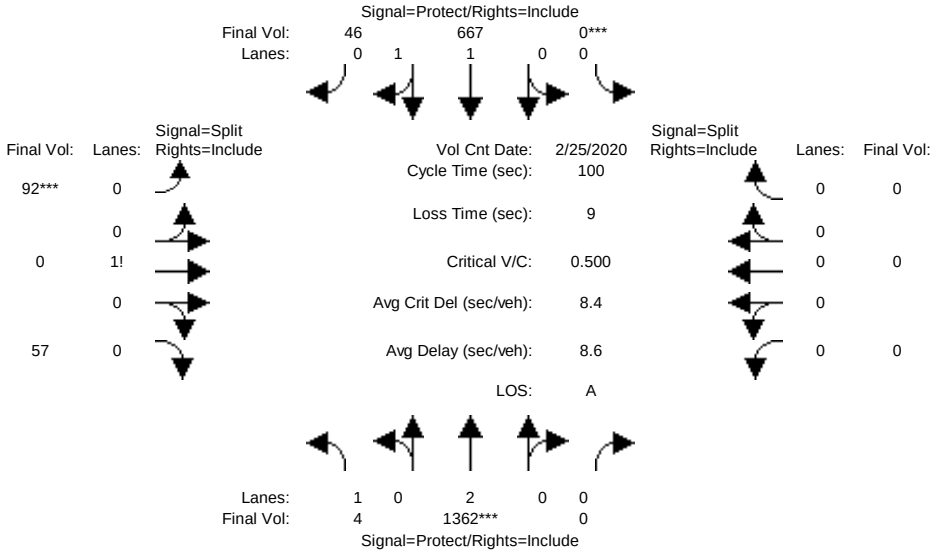


Street Name:	University Avenue						Notre Dame Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	8	8	4	8	0	0	0	0	4	4	4
Y+R:	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	0	1336	17	25	594	0	0	0	0	69	0	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1336	17	25	594	0	0	0	0	69	0	28
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1336	17	25	594	0	0	0	0	69	0	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	1421	18	27	632	0	0	0	0	73	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1421	18	27	632	0	0	0	0	73	0	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1421	18	27	632	0	0	0	0	73	0	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.93	1.00	0.93
Lanes:	0.00	1.97	0.03	1.00	2.00	0.00	0.00	0.00	0.00	0.71	0.00	0.29
Final Sat.:	0	3557	45	1805	3610	0	0	0	0	1255	0	509
Capacity Analysis Module:												
Vol/Sat:	0.00	0.40	0.40	0.01	0.18	0.00	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.76	0.76	0.04	0.80	0.00	0.00	0.00	0.00	0.11	0.00	0.11
Volume/Cap:	0.00	0.53	0.53	0.37	0.22	0.00	0.00	0.00	0.00	0.53	0.00	0.53
Uniform Del:	0.0	4.8	4.8	46.8	2.5	0.0	0.0	0.0	0.0	42.0	0.0	42.0
IncremntDel:	0.0	0.2	0.2	3.2	0.0	0.0	0.0	0.0	0.0	2.6	0.0	2.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	5.0	5.0	49.9	2.5	0.0	0.0	0.0	0.0	44.6	0.0	44.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	5.0	5.0	49.9	2.5	0.0	0.0	0.0	0.0	44.6	0.0	44.6
LOS by Move:	A	A	A	D	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	233	232	20	63	0	0	0	0	93	0	93

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #4: University Avenue/Kavanaugh Drive

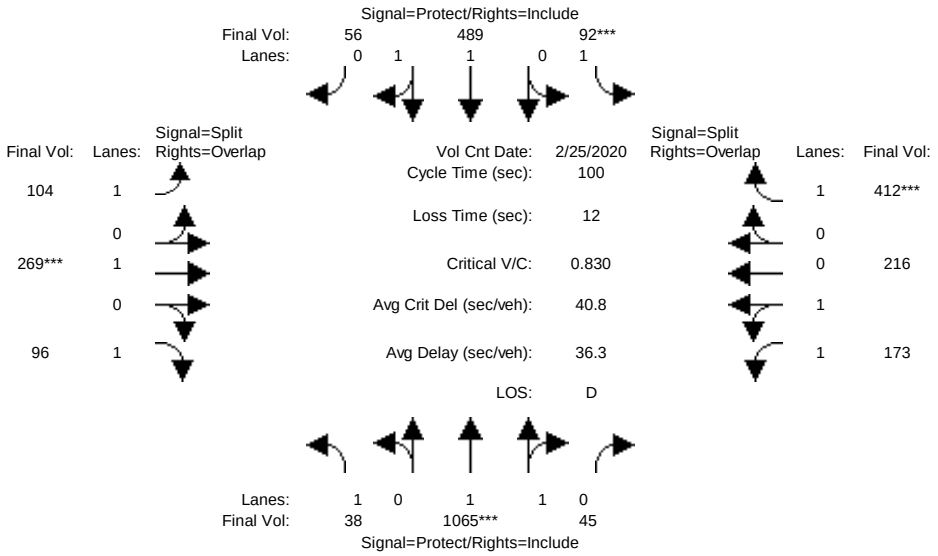


Street Name:	University Avenue						Kavanaugh Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	0	0	8	8	4	0	4	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	3.5	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	4	1267	0	0	620	43	86	0	53	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	1267	0	0	620	43	86	0	53	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	1267	0	0	620	43	86	0	53	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	4	1362	0	0	667	46	92	0	57	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	1362	0	0	667	46	92	0	57	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	1362	0	0	667	46	92	0	57	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.94	0.93	1.01	1.00	1.01	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.87	0.13	0.62	0.00	0.38	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3340	232	1189	0	733	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.38	0.00	0.00	0.20	0.20	0.08	0.00	0.08	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.13	0.75	0.00	0.00	0.63	0.63	0.16	0.00	0.16	0.00	0.00	0.00
Volume/Cap:	0.02	0.50	0.00	0.00	0.32	0.32	0.50	0.00	0.50	0.00	0.00	0.00
Uniform Del:	38.3	4.8	0.0	0.0	8.6	8.6	38.7	0.0	38.7	0.0	0.0	0.0
IncremntDel:	0.0	0.1	0.0	0.0	0.1	0.1	1.3	0.0	1.3	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	38.3	5.0	0.0	0.0	8.7	8.7	40.0	0.0	40.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.3	5.0	0.0	0.0	8.7	8.7	40.0	0.0	40.0	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	3	221	0	0	130	129	119	0	119	0	0	0

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #5: University Avenue/Bay Road

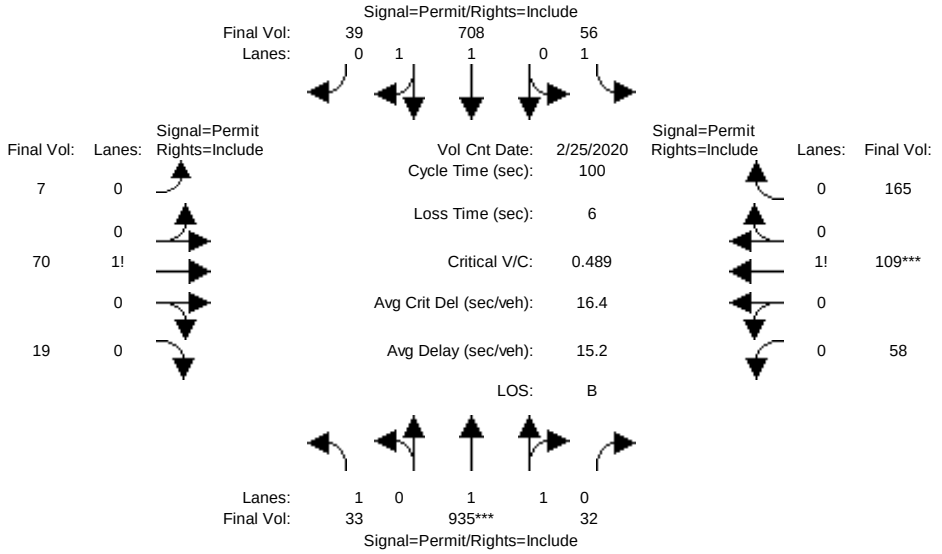


Street Name:	University Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	35	969	41	84	445	51	95	245	87	157	197	375
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	969	41	84	445	51	95	245	87	157	197	375
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	969	41	84	445	51	95	245	87	157	197	375
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	38	1065	45	92	489	56	104	269	96	173	216	412
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	1065	45	92	489	56	104	269	96	173	216	412
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	38	1065	45	92	489	56	104	269	96	173	216	412
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.94	0.92	0.95	1.00	0.76	0.98	0.98	0.78
Lanes:	1.00	1.92	0.08	1.00	1.79	0.21	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1805	3442	146	1805	3186	365	1805	1900	1451	1858	1858	1474
Capacity Analysis Module:												
Vol/Sat:	0.02	0.31	0.31	0.05	0.15	0.15	0.06	0.14	0.07	0.09	0.12	0.28
Crit Moves:		****		****				****				****
Green/Cycle:	0.09	0.37	0.37	0.06	0.34	0.34	0.17	0.17	0.26	0.28	0.28	0.34
Volume/Cap:	0.24	0.83	0.83	0.83	0.45	0.45	0.34	0.83	0.25	0.34	0.42	0.83
Uniform Del:	42.3	28.5	28.5	46.4	25.4	25.4	36.5	40.1	29.3	29.0	29.7	30.5
IncremntDel:	0.8	4.5	4.5	38.4	0.3	0.3	0.7	16.3	0.4	0.2	0.3	11.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	43.1	33.0	33.0	84.8	25.6	25.6	37.2	56.4	29.6	29.1	30.0	41.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.1	33.0	33.0	84.8	25.6	25.6	37.2	56.4	29.6	29.1	30.0	41.8
LOS by Move:	D	C	C	F	C	C	D	E	C	C	C	D
HCM2kAvgQ:	26	424	421	124	174	172	76	263	61	108	141	354

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #6: University Avenue/Runnymede Street

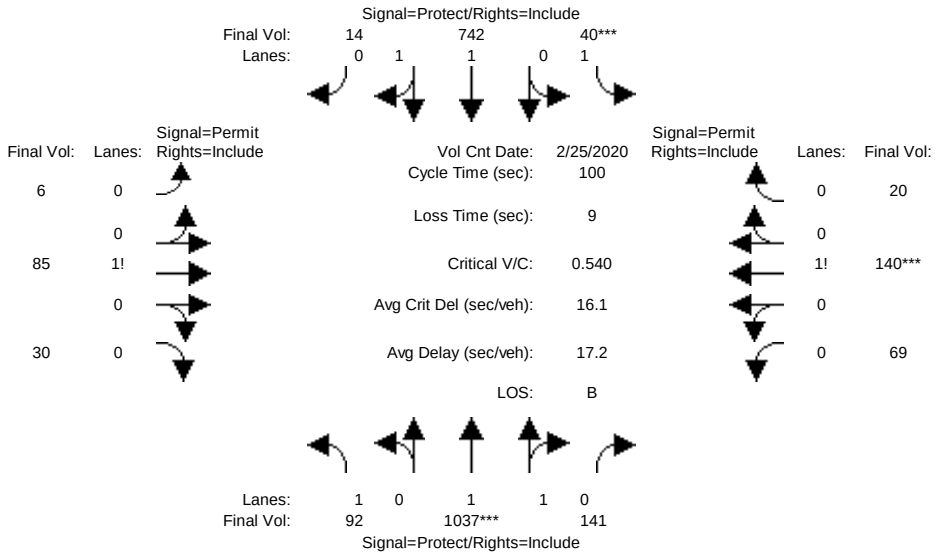


Street Name:	University Avenue						Runnymede Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	8	8	8	8	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	29	823	28	49	623	34	6	62	17	51	96	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	823	28	49	623	34	6	62	17	51	96	145
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	823	28	49	623	34	6	62	17	51	96	145
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	33	935	32	56	708	39	7	70	19	58	109	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	935	32	56	708	39	7	70	19	58	109	165
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	935	32	56	708	39	7	70	19	58	109	165
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.30	0.95	0.94	0.22	0.94	0.94	0.95	1.08	0.95	0.87	1.04	0.87
Lanes:	1.00	1.93	0.07	1.00	1.90	0.10	0.08	0.70	0.22	0.18	0.29	0.53
Final Sat.:	567	3474	118	414	3396	185	139	1441	395	305	574	867
Capacity Analysis Module:												
Vol/Sat:	0.06	0.27	0.27	0.13	0.21	0.21	0.05	0.05	0.05	0.19	0.19	0.19
Crit Moves:		****									****	
Green/Cycle:	0.55	0.55	0.55	0.55	0.55	0.55	0.39	0.39	0.39	0.39	0.39	0.39
Volume/Cap:	0.11	0.49	0.49	0.24	0.38	0.38	0.13	0.13	0.13	0.49	0.49	0.49
Uniform Del:	10.7	13.8	13.8	11.6	12.7	12.7	19.6	19.6	19.6	23.0	23.0	23.0
IncremntDel:	0.1	0.2	0.2	0.6	0.1	0.1	0.1	0.1	0.1	0.6	0.6	0.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	10.9	14.0	14.0	12.2	12.9	12.9	19.7	19.7	19.7	23.6	23.6	23.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.9	14.0	14.0	12.2	12.9	12.9	19.7	19.7	19.7	23.6	23.6	23.6
LOS by Move:	B	B	B	B	B	B	B	B	B	C	C	C
HCM2kAvgQ:	12	232	232	22	165	165	43	48	43	188	221	187

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #7: University Avenue/Bell Street



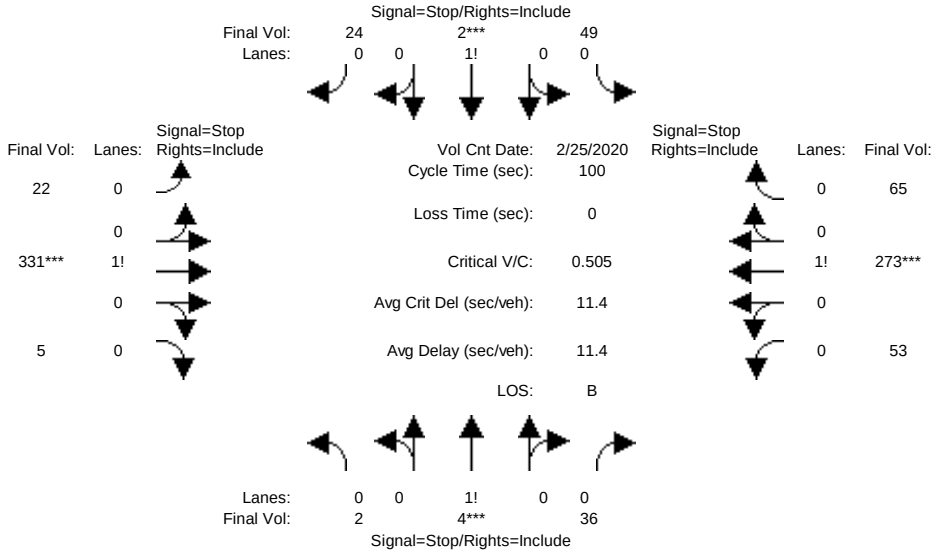
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	79	892	121	34	638	12	5	73	26	59	120	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	892	121	34	638	12	5	73	26	59	120	17
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	79	892	121	34	638	12	5	73	26	59	120	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	92	1037	141	40	742	14	6	85	30	69	140	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	1037	141	40	742	14	6	85	30	69	140	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	1037	141	40	742	14	6	85	30	69	140	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.87	0.87	0.87
Lanes:	1.00	1.76	0.24	1.00	1.96	0.04	0.05	0.70	0.25	0.30	0.61	0.09
Final Sat.:	1805	3120	423	1805	3533	66	87	1269	452	499	1015	144
Capacity Analysis Module:												
Vol/Sat:	0.05	0.33	0.33	0.02	0.21	0.21	0.07	0.07	0.07	0.14	0.14	0.14
Crit Moves:		****		****							****	
Green/Cycle:	0.13	0.62	0.62	0.04	0.53	0.53	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.40	0.54	0.54	0.54	0.40	0.40	0.26	0.26	0.26	0.54	0.54	0.54
Uniform Del:	40.1	11.1	11.1	47.1	14.1	14.1	29.8	29.8	29.8	32.2	32.2	32.2
IncremntDel:	1.1	0.3	0.3	7.9	0.1	0.1	0.3	0.3	0.3	1.4	1.4	1.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	41.2	11.4	11.4	55.0	14.3	14.3	30.1	30.1	30.1	33.6	33.6	33.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.2	11.4	11.4	55.0	14.3	14.3	30.1	30.1	30.1	33.6	33.6	33.6
LOS by Move:	D	B	B	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	75	277	276	31	176	176	76	76	76	165	165	165

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #14: Bay Road/Newbridge Street/Ralmar Avenue



Street Name:	Bay Road/Ralmar Avenue						Bay Road/Newbridge Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 5:00PM												
Base Vol:	2	3	30	41	2	20	18	275	4	44	227	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	3	30	41	2	20	18	275	4	44	227	54
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	3	30	41	2	20	18	275	4	44	227	54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
PHF Volume:	2	4	36	49	2	24	22	331	5	53	273	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	4	36	49	2	24	22	331	5	53	273	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	4	36	49	2	24	22	331	5	53	273	65
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.08	0.86	0.65	0.03	0.32	0.06	0.93	0.01	0.13	0.70	0.17
Final Sat.:	35	52	522	379	19	185	46	701	10	105	542	129
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.07	0.13	0.13	0.13	0.47	0.47	0.47	0.51	0.51	0.51
Crit Moves:		****			****			****			****	
Delay/Veh:	8.5	8.5	8.5	9.2	9.2	9.2	11.6	11.6	11.6	11.9	11.9	11.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.5	8.5	8.5	9.2	9.2	9.2	11.6	11.6	11.6	11.9	11.9	11.9
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
ApproachDel:		8.5			9.2			11.6			11.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.5			9.2			11.6			11.9	
LOS by Appr:		A			A			B			B	
AllWayAvgQ:	1.4	1.4	1.4	2.9	2.9	2.9	20.6	20.6	20.6	23.4	23.4	23.4

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #14 Bay Road/Newbridge Street/Ralmar Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Initial Vol:	2	3	30	41	2	20	18	275	4	44	227	54

Major Street Volume: 622
Minor Approach Volume: 63
Minor Approach Volume Threshold: 346

SIGNAL WARRANT DISCLAIMER

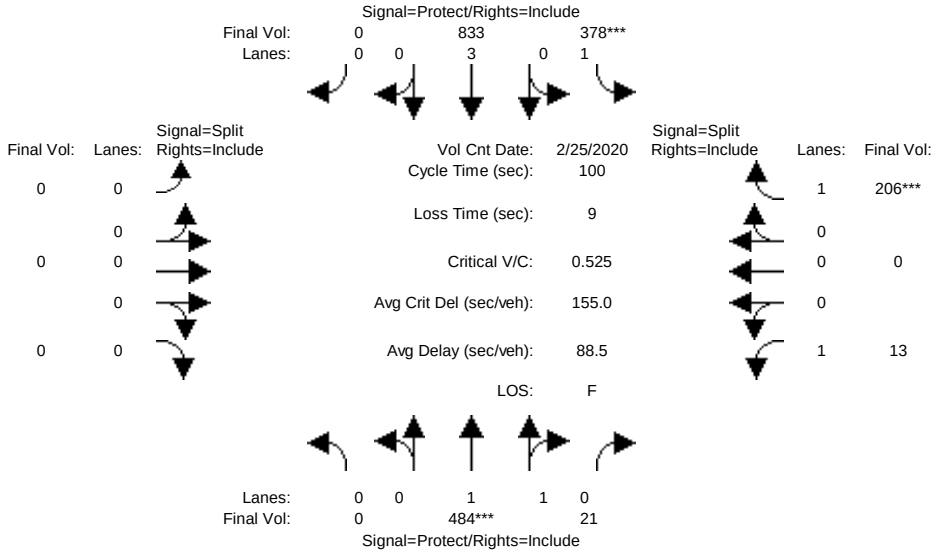
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #17: Donohoe Street/E Bayshore Road

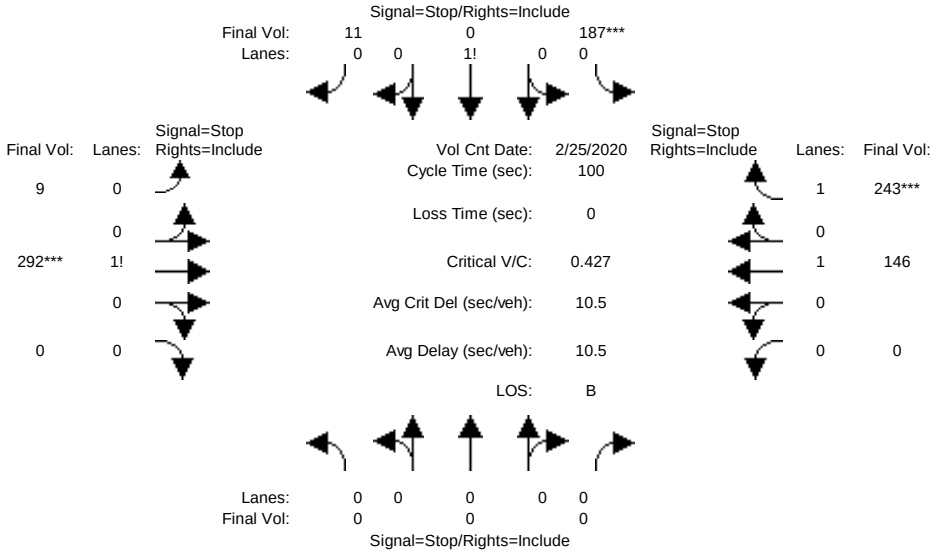


Street Name:	Donohoe Street/E Bayshore Road						Donohoe Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	71	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	0	460	20	359	791	0	0	0	0	12	0	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	460	20	359	791	0	0	0	0	12	0	196
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	460	20	359	791	0	0	0	0	12	0	196
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	484	21	378	833	0	0	0	0	13	0	206
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	484	21	378	833	0	0	0	0	13	0	206
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	484	21	378	833	0	0	0	0	13	0	206
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.95	0.91	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.92	0.08	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3438	149	1805	5187	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.14	0.14	0.21	0.16	0.00	0.00	0.00	0.00	0.01	0.00	0.13
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.10	0.10	0.71	0.81	0.00	0.00	0.00	0.00	0.10	0.00	0.10
Volume/Cap:	0.00	1.41	1.41	0.29	0.20	0.00	0.00	0.00	0.00	0.07	0.00	1.28
Uniform Del:	0.0	45.0	45.0	5.3	2.2	0.0	0.0	0.0	0.0	40.8	0.0	45.0
IncremntDel:	0.0	200	199.8	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	164.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	245	244.8	5.4	2.2	0.0	0.0	0.0	0.0	41.0	0.0	209.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	245	244.8	5.4	2.2	0.0	0.0	0.0	0.0	41.0	0.0	209.0
LOS by Move:	A	F	F	A	A	A	A	A	A	D	A	F
HCM2kAvgQ:	0	493	490	107	54	0	0	0	0	10	0	358

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #19: Woodland Avenue/Manhattan Avenue



Street Name:	Manhattan Avenue						Woodland Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	0	0	0	168	0	10	8	263	0	0	131	219
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	168	0	10	8	263	0	0	131	219
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	168	0	10	8	263	0	0	131	219
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	187	0	11	9	292	0	0	146	243
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	187	0	11	9	292	0	0	146	243
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	187	0	11	9	292	0	0	146	243
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.94	0.00	0.06	0.03	0.97	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	582	0	35	21	685	0	0	658	755
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	0.32	xxxx	0.32	0.43	0.43	xxxx	xxxx	0.22	0.32
Crit Moves:				****				****				****
Delay/Veh:	0.0	0.0	0.0	10.8	0.0	10.8	11.5	11.5	0.0	0.0	9.5	9.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	10.8	0.0	10.8	11.5	11.5	0.0	0.0	9.5	9.4
LOS by Move:	*	*	*	B	*	B	B	B	*	*	A	A
ApproachDel:	xxxxxx			10.8			11.5			9.5		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			10.8			11.5			9.5		
LOS by Appr:	*			B			B			A		
AllWayAvgQ:	0.0	0.0	0.0	10.1	10.1	10.1	17.1	17.1	17.1	0.0	6.7	11.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Woodland Avenue/Manhattan Avenue

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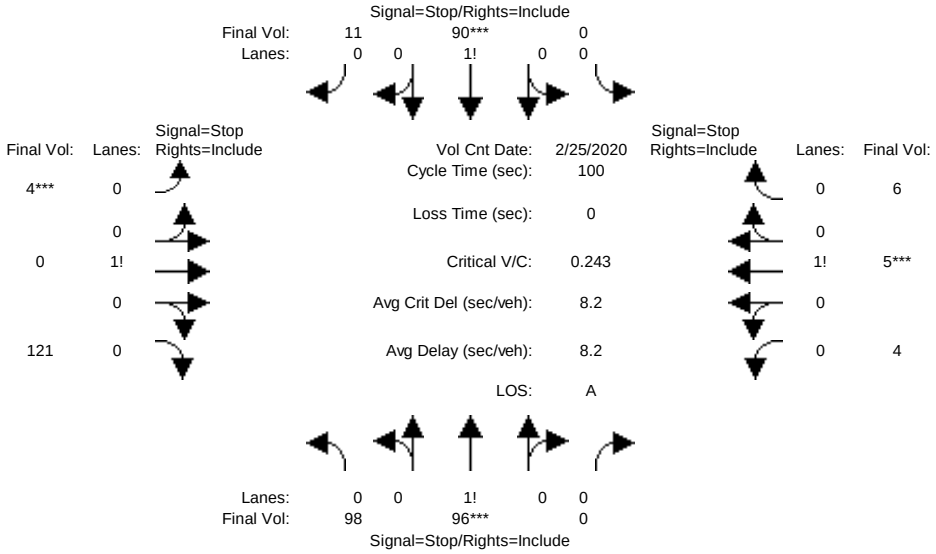
```
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Lanes:        0  0  0  0  0    0  0  1! 0  0    0  1  0  0  0    0  0  1  0  1
Initial Vol:    0    0     0   168    0    10     8  263     0     0  131   219
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             621
Minor Approach Volume:           178
Minor Approach Volume Threshold: 449
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #20: O'Conner Street/Manhattan Avenue




```
Street Name:         Manhattan Avenue                 O'Conner Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM
Base Vol:      92   90     0     0   85    10     4    0   114     4    5     6
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   92   90     0     0   85    10     4    0   114     4    5     6
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   92   90     0     0   85    10     4    0   114     4    5     6
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.94 0.94  0.94  0.94 0.94  0.94  0.94 0.94  0.94  0.94 0.94  0.94
PHF Volume:    98   96     0     0   90    11     4    0   121     4    5     6
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   98   96     0     0   90    11     4    0   121     4    5     6
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   98   96     0     0   90    11     4    0   121     4    5     6
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.51 0.49  0.00  0.00 0.89  0.11  0.03 0.00  0.97  0.27 0.33  0.40
Final Sat.:   403  394     0     0  719    85    29    0   823   200  250   300
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.24 0.24  xxxx  xxxx 0.13  0.13  0.15 xxxx  0.15  0.02 0.02  0.02
Crit Moves:       ****              ****        ****                    ****
Delay/Veh:    8.8  8.8   0.0   0.0  7.9   7.9   7.6  0.0   7.6   7.6  7.6   7.6
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   8.8  8.8   0.0   0.0  7.9   7.9   7.6  0.0   7.6   7.6  7.6   7.6
LOS by Move:    A    A     *     *    A     A     A    *     A     A    A     A
ApproachDel:       8.8             7.9             7.6             7.6
Delay Adj:        1.00             1.00            1.00            1.00
ApprAdjDel:        8.8             7.9             7.6             7.6
LOS by Appr:         A               A               A               A
AllWayAvgQ:   7.5  7.5   7.5   3.3  3.3   3.3   3.8  3.8   3.8   0.5  0.5   0.5
Note: Queue reported is the distance per lane in feet.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #20 O'Conner Street/Manhattan Avenue
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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 1	0	0	0	0 0	1 0	0	0 1!	0 0	0	0 1!	0 0
Initial Vol:	92	90	0	0	85	10	4	0	114	4	5	6

Major Street Volume: 277
Minor Approach Volume: 118
Minor Approach Volume Threshold: 562

SIGNAL WARRANT DISCLAIMER

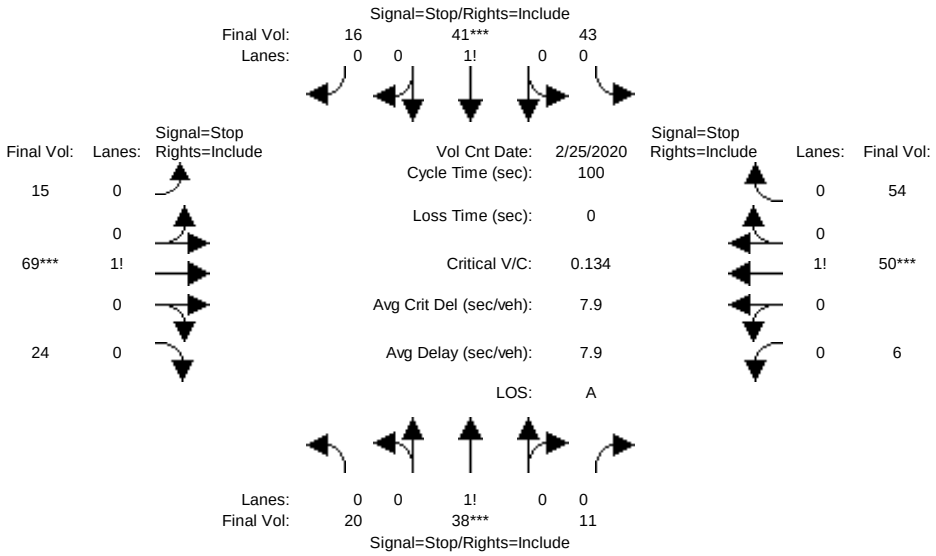
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #21: O'Conner Street/Euclid Avenue



Street Name:	Euclid Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	19	36	10	40	39	15	14	65	23	6	47	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	36	10	40	39	15	14	65	23	6	47	51
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	36	10	40	39	15	14	65	23	6	47	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	20	38	11	43	41	16	15	69	24	6	50	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	38	11	43	41	16	15	69	24	6	50	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	38	11	43	41	16	15	69	24	6	50	54
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.29	0.56	0.15	0.43	0.41	0.16	0.14	0.64	0.22	0.06	0.45	0.49
Final Sat.:	226	429	119	331	323	124	111	516	183	49	381	413
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Crit Moves:		****			****			****			****	
Delay/Veh:	7.8	7.8	7.8	8.0	8.0	8.0	7.9	7.9	7.9	7.7	7.7	7.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.8	7.8	7.8	8.0	8.0	8.0	7.9	7.9	7.9	7.7	7.7	7.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		7.8			8.0			7.9			7.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		7.8			8.0			7.9			7.7	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	2.2	2.2	2.2	3.3	3.3	3.3	3.6	3.6	3.6	3.5	3.5	3.5

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #21 O'Conner Street/Euclid Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Initial Vol:	19	36	10	40	39	15	14	65	23	6	47	51

Major Street Volume: 206
Minor Approach Volume: 94
Minor Approach Volume Threshold: 641

SIGNAL WARRANT DISCLAIMER

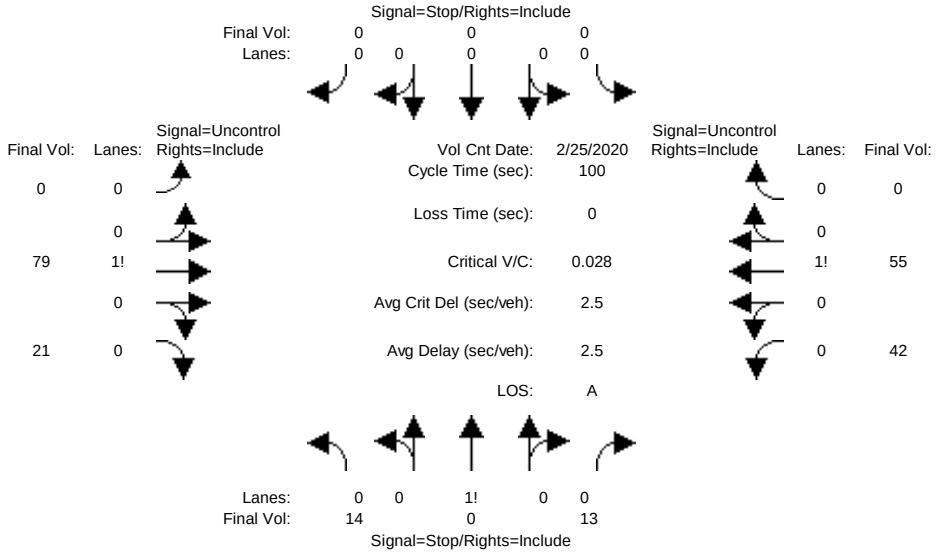
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #22: W Bayshore Road/Euclid Avenue



Street Name:	Euclid Avenue						W Bayshore Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 25 Feb 2020 << 4:30PM												
Base Vol:	13	0	12	0	0	0	0	76	20	40	53	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	0	12	0	0	0	0	76	20	40	53	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	0	12	0	0	0	0	76	20	40	53	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	14	0	13	0	0	0	0	79	21	42	55	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	14	0	13	0	0	0	0	79	21	42	55	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	230	228	90	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	100	xxxx	xxxxx
Potent Cap.:	762	675	974	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1505	xxxx	xxxxx
Move Cap.:	745	656	974	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1505	xxxx	xxxxx
Volume/Cap:	0.02	0.00	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	840	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	9.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:		9.4		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		A		*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #22 W Bayshore Road/Euclid Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	13	0	12	0	0	0	0	76	20	40	53	0
ApproachDel:	9.4			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=25]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=214]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #22 W Bayshore Road/Euclid Avenue

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	13	0	12	0	0	0	0	76	20	40	53	0

Major Street Volume: 189
Minor Approach Volume: 25
Minor Approach Volume Threshold: 664

SIGNAL WARRANT DISCLAIMER
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8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.8	0.1	0.2
Total Delay (hr)	0.1	1.2	0.4	2.8	4.7	1.8	18.5	4.9	2.4	1.0	5.7	1.1
Total Del/Veh (s)	67.2	48.2	9.2	28.7	26.4	11.9	243.5	39.6	15.4	57.9	37.3	31.9
Avg Speed (mph)	3	4	12	6	6	10	1	5	9	13	16	16
Vehicles Entered	8	91	140	342	633	532	261	441	554	60	533	124

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	44.6
Total Del/Veh (s)	42.5
Avg Speed (mph)	8
Vehicles Entered	3719

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.1	0.3	0.2	0.0	0.0	0.0	0.6
Denied Del/Veh (s)	1.4	1.2	0.6	0.3	0.0	0.0	0.6
Total Delay (hr)	31.0	136.2	18.4	0.2	5.1	1.3	192.4
Total Del/Veh (s)	386.4	613.8	68.2	4.9	38.3	6.0	196.1
Avg Speed (mph)	6	4	4	15	10	20	5
Vehicles Entered	278	768	955	178	479	800	3458

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.3	0.0	1.5	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.7	0.4	0.0	1.1	1.0	3.6	5.2	9.4	12.9	0.0	0.0	0.0
Total Delay (hr)	11.6	2.0	0.9	0.1	0.8	3.0	1.9	64.1	0.7	3.3	1.8	0.4
Total Del/Veh (s)	105.0	94.5	83.8	49.8	52.2	35.8	319.2	377.6	289.7	60.8	12.6	4.8
Avg Speed (mph)	1	1	2	6	6	8	6	5	6	4	12	16
Vehicles Entered	394	74	38	10	54	293	19	581	8	196	503	316

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	2.0
Denied Del/Veh (s)	2.9
Total Delay (hr)	90.6
Total Del/Veh (s)	128.6
Avg Speed (mph)	5
Vehicles Entered	2486

15: NB US 101 On-ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.8	0.3	1.1
Total Del/Veh (s)	0.3	0.4	6.8	1.7	2.9
Avg Speed (mph)	24	21	15	20	19
Vehicles Entered	236	83	399	625	1343

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.5	0.0	0.6	0.0	0.0	1.2
Denied Del/Veh (s)	0.0	0.1	0.2	2.4	2.0	3.6	0.1	0.2	1.5
Total Delay (hr)	3.1	4.0	0.0	8.0	0.3	10.1	0.1	0.9	26.6
Total Del/Veh (s)	16.0	19.0	10.4	39.5	48.4	55.2	50.8	57.6	32.5
Avg Speed (mph)	8	20	21	11	10	9	3	2	13
Vehicles Entered	704	735	12	710	23	638	5	58	2885

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	6.9	0.3	7.5
Denied Del/Veh (s)	6.3	2.1	0.0	0.0	150.4	115.6	27.1
Total Delay (hr)	0.5	13.5	1.8	0.1	21.7	1.5	39.1
Total Del/Veh (s)	107.9	113.7	20.1	5.9	562.1	586.4	141.9
Avg Speed (mph)	7	7	5	9	1	1	3
Vehicles Entered	15	414	324	70	138	9	970

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.3	0.0	0.0	0.3
Denied Del/Veh (s)	0.2	0.8	0.5	0.0	0.4
Total Delay (hr)	0.3	47.5	6.1	0.5	54.4
Total Del/Veh (s)	3.9	131.2	119.0	1.8	70.5
Avg Speed (mph)	15	4	4	19	5
Vehicles Entered	258	1264	181	1028	2731

Total Network Performance

Denied Delay (hr)	11.7
Denied Del/Veh (s)	6.8
Total Delay (hr)	456.2
Total Del/Veh (s)	249.0
Avg Speed (mph)	9
Vehicles Entered	6147

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	41	146	108	225	297	282	251	225	250	350	341	175
Average Queue (ft)	9	71	49	123	178	179	124	222	248	322	237	150
95th Queue (ft)	33	133	85	216	280	267	229	238	252	347	376	215
Link Distance (ft)		337	337		266	266	266			282	282	
Upstream Blk Time (%)					3	2	0			70	7	
Queuing Penalty (veh)					15	8	1			586	55	
Storage Bay Dist (ft)	200			175				200	200			125
Storage Blk Time (%)				2	11			48	83	5	18	14
Queuing Penalty (veh)				11	19			138	238	17	133	39

Intersection: 8: University Avenue & Donohoe Street

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	175	301	327
Average Queue (ft)	48	176	189
95th Queue (ft)	114	268	287
Link Distance (ft)		2340	2340
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)		1	
Queuing Penalty (veh)		1	

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	4525	4529	250	386	392	335	86	244	262	263	211
Average Queue (ft)	2219	2412	244	334	340	53	22	134	150	77	88
95th Queue (ft)	4758	4799	276	442	441	193	62	218	225	189	159
Link Distance (ft)	5324	5324		355	355	355				939	939
Upstream Blk Time (%)	2	2		15	19	1					
Queuing Penalty (veh)	0	0		67	89	4					
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		75	78					0	1	0	
Queuing Penalty (veh)		287	405					1	4	0	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	212	212	213	469	75	224	3688	290	261	233	211	144
Average Queue (ft)	166	164	157	180	71	50	1517	256	139	93	86	58
95th Queue (ft)	233	226	229	382	83	188	3872	355	221	188	164	107
Link Distance (ft)	165	165	165	645			4497		355	355	355	355
Upstream Blk Time (%)	57	52	52	0			6					
Queuing Penalty (veh)	112	103	102	0			0					
Storage Bay Dist (ft)					25	175		240				
Storage Blk Time (%)				37	60		63	60				
Queuing Penalty (veh)				110	37		208	193				

Intersection: 15: NB US 101 On-ramp & Donohoe Street

Movement	EB	EB	WB	WB
Directions Served	T	R	L	T
Maximum Queue (ft)	11	34	177	22
Average Queue (ft)	1	3	74	1
95th Queue (ft)	7	18	141	22
Link Distance (ft)	429	429	337	337
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	T	T	T	T	TR	L	L	T	R	L	R
Maximum Queue (ft)	215	221	242	230	172	362	632	802	250	40	135
Average Queue (ft)	110	124	124	107	73	214	272	346	227	5	52
95th Queue (ft)	184	200	207	188	142	313	551	834	300	24	110
Link Distance (ft)	266	266	2722	2722			1046	1046		230	230
Upstream Blk Time (%)	0	0					1	2			
Queuing Penalty (veh)	0	0					0	0			
Storage Bay Dist (ft)					245	475			200		
Storage Blk Time (%)				0	0	0	0	0	40		
Queuing Penalty (veh)				1	0	0	0	0	9		

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	250	812	165	203	125	535	538
Average Queue (ft)	170	335	74	106	41	291	283
95th Queue (ft)	281	894	155	180	118	628	630
Link Distance (ft)		1588	165	165		521	521
Upstream Blk Time (%)		2	0	2		24	30
Queuing Penalty (veh)		0	0	4		0	0
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	17	27		20	0		
Queuing Penalty (veh)	35	61		7	0		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	131	985	980	31	70
Average Queue (ft)	47	892	899	1	12
95th Queue (ft)	101	1184	1185	17	43
Link Distance (ft)	314	939	939	282	282
Upstream Blk Time (%)		19	24		
Queuing Penalty (veh)		177	226		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 3505

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	University Ave/Bayfront Expy	Signalized	HCM 6th Edition	NB Left	0.714	20.3	C
11	Willow Rd/NB US-101 Ramps	Signalized	HCM 6th Edition	WB Right	0.753	41.2	D
12	Willow Rd/SB US-101 Ramps	Signalized	HCM 6th Edition	EB Left	0.785	8.9	A
13	Willow Rd/Bay Rd	Signalized	HCM 6th Edition	EB Left	0.799	26.2	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: University Ave/Bayfront Expy

Control Type:	Signalized	Delay (sec / veh):	20.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.714

Intersection Setup

Name	University Ave		Bayfront Expy		Bayfront Expy	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	2	0	1	2	0
Entry Pocket Length [ft]	175.00	1260.00	100.00	430.00	830.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	University Ave		Bayfront Expy		Bayfront Expy	
Base Volume Input [veh/h]	144	396	873	85	1448	3243
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	144	396	873	85	1448	3243
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	99	218	21	362	811
Total Analysis Volume [veh/h]	144	396	873	85	1448	3243
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1		0		1	
v_di, Inbound Pedestrian Volume crossing m	1		0		1	
v_co, Outbound Pedestrian Volume crossing	1		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		9		16	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	180
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	113.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Split	Overlap	Permissive	Permissive	Protected	Permissive
Signal Group	4	4	6	0	5	2
Auxiliary Signal Groups		4,5				
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	12	12	10	0	11	10
Maximum Green [s]	15	15	60	0	100	135
Amber [s]	3.0	3.0	5.0	0.0	3.0	5.4
All red [s]	1.0	1.0	1.0	0.0	0.5	0.5
Split [s]	38	38	53	0	89	142
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	5	5	5	0	0	10
Pedestrian Clearance [s]	29	29	35	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	4.0	0.0	1.5	3.9
Minimum Recall	No	No	Yes		No	Yes
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	180	180	180	180	180	180
L, Total Lost Time per Cycle [s]	4.00	3.50	6.00	6.00	3.50	5.90
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	0.00	4.00	4.00	1.50	3.90
g_i, Effective Green Time [s]	12	138	33	33	122	158
g / C, Green / Cycle	0.07	0.77	0.18	0.18	0.68	0.88
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.17	0.05	0.42	0.64
s, saturation flow rate [veh/h]	3459	4220	5094	1553	3459	5094
c, Capacity [veh/h]	231	3230	927	283	2339	4474
d1, Uniform Delay [s]	81.82	5.47	72.71	63.66	16.23	3.67
k, delay calibration	0.04	0.04	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.03	0.01	2.32	0.22	1.24	1.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.12	0.94	0.30	0.62	0.72
d, Delay for Lane Group [s/veh]	82.84	5.48	75.03	63.87	17.47	4.72
Lane Group LOS	F	A	E	E	B	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.31	1.26	13.24	3.35	15.82	7.26
50th-Percentile Queue Length [ft/ln]	82.64	31.42	330.96	83.79	395.53	181.50
95th-Percentile Queue Length [veh/ln]	5.95	2.26	19.21	6.03	22.34	11.68
95th-Percentile Queue Length [ft/ln]	148.75	56.55	480.14	150.82	558.62	291.97

Movement, Approach, & Intersection Results

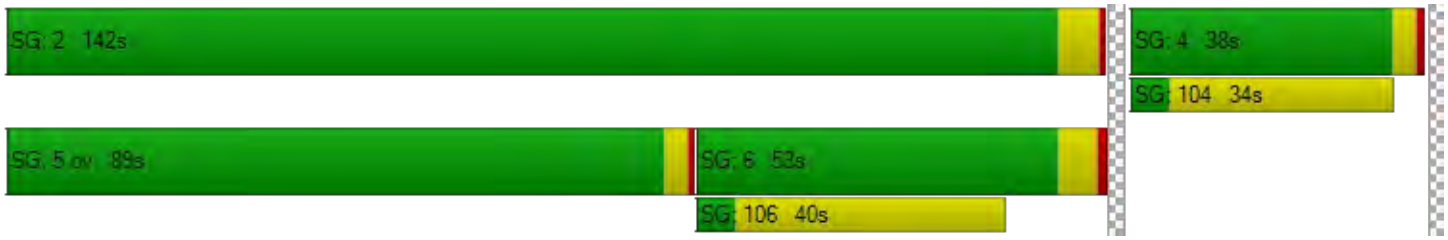
d_M, Delay for Movement [s/veh]	82.84	5.48	75.03	63.87	17.47	4.72
Movement LOS	F	A	E	E	B	A
d_A, Approach Delay [s/veh]	26.11		74.04		8.66	
Approach LOS	C		E		A	
d_I, Intersection Delay [s/veh]	20.30					
Intersection LOS	C					
Intersection V/C	0.714					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	3596.94	0.00	614.42
d_p, Pedestrian Delay [s]	81.23	0.00	81.23
l_p,int, Pedestrian LOS Score for Intersection	2.964	0.000	3.970
Crosswalk LOS	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	378	522	1512
d_b, Bicycle Delay [s]	59.21	49.36	5.40
l_b,int, Bicycle LOS Score for Intersection	1.560	2.087	4.140
Bicycle LOS	A	B	D

Sequence

Ring 1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Willow Rd/NB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	41.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.753

Intersection Setup

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	405.00	100.00	100.00	100.00	175.00	100.00	195.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Base Volume Input [veh/h]	0	1094	402	0	1875	637	0	0	0	480	0	864
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1094	402	0	1875	637	0	0	0	480	0	864
Peak Hour Factor	1.0000	0.9700	0.9700	1.0000	0.9700	0.9700	1.0000	1.0000	1.0000	0.9700	1.0000	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	282	104	0	483	164	0	0	0	124	0	223
Total Analysis Volume [veh/h]	0	1128	414	0	1933	657	0	0	0	495	0	891
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	3			0			0			7		
v_ci, Inbound Pedestrian Volume crossing mi	7			0			0			3		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	24			16			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	38.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	0	0	0	3	0	3
Auxiliary Signal Groups			3,6			2,3						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	4	4	0	4	4	0	0	0	4	0	4
Maximum Green [s]	0	35	35	0	35	35	0	0	0	24	0	24
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	0.0	0.0	0.0	3.0	0.0	3.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0
Split [s]	0	57	57	0	57	57	0	0	0	23	0	23
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	30	30	0	7	7	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No					No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	0.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall		Yes	Yes		Yes	Yes				No		
Maximum Recall		No	No		No	No				No		
Pedestrian Recall		No	No		No	No				No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R		L	R
C, Cycle Length [s]	80	80	80	80		80	80
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00		5.00	5.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00		3.00	3.00
g_i, Effective Green Time [s]	53	75	53	75		18	18
g / C, Green / Cycle	0.66	0.94	0.66	0.94		0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.22	0.27	0.38	0.42		0.14	0.32
s, saturation flow rate [veh/h]	5094	1555	5094	1548		3459	2813
c, Capacity [veh/h]	3363	1457	3363	1451		781	635
d1, Uniform Delay [s]	5.92	0.21	7.43	0.27		27.94	30.93
k, delay calibration	0.50	0.30	0.50	0.50		0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	0.27	0.30	0.72	1.02		0.32	181.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.28	0.57	0.45		0.63	1.40
d, Delay for Lane Group [s/veh]	6.19	0.51	8.15	1.29		28.26	212.74
Lane Group LOS	A	A	A	A		C	F
Critical Lane Group	No	No	Yes	No		No	Yes
50th-Percentile Queue Length [veh/ln]	2.22	0.12	4.82	0.41		4.10	21.83
50th-Percentile Queue Length [ft/ln]	55.51	3.02	120.44	10.30		102.62	545.69
95th-Percentile Queue Length [veh/ln]	4.00	0.22	8.42	0.74		7.39	34.48
95th-Percentile Queue Length [ft/ln]	99.92	5.44	210.43	18.55		184.72	861.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	6.19	0.51	0.00	8.15	1.29	0.00	0.00	0.00	28.26	0.00	212.74
Movement LOS		A	A		A	A				C		F
d_A, Approach Delay [s/veh]	4.67			6.41			0.00			146.85		
Approach LOS	A			A			A			F		
d_I, Intersection Delay [s/veh]	41.20											
Intersection LOS	D											
Intersection V/C	0.753											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	568.06
d_p, Pedestrian Delay [s]	0.00	0.00	32.40	32.40
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.061	2.706
Crosswalk LOS	F	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1323	1323	0	450
d_b, Bicycle Delay [s]	4.65	4.63	40.00	24.03
l_b,int, Bicycle LOS Score for Intersection	2.408	2.984	4.132	1.560
Bicycle LOS	B	C	D	A

Sequence

Ring 1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Willow Rd/SB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	8.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.785

Intersection Setup

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	2	0	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	300.00	100.00	100.00	100.00	150.00	100.00	170.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			35.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Base Volume Input [veh/h]	0	991	784	0	1281	1074	516	0	343	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	991	784	0	1281	1074	516	0	343	0	0	0
Peak Hour Factor	1.0000	0.9700	0.9700	1.0000	0.9700	0.9700	0.9700	1.0000	0.9700	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	255	202	0	330	277	133	0	88	0	0	0
Total Analysis Volume [veh/h]	0	1022	808	0	1321	1107	532	0	354	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			2			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			2			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	23			16			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	54.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	4	0	0	0	0	0
Auxiliary Signal Groups			4,6			2,4						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	4	4	0	4	4	4	0	0	0	0	0
Maximum Green [s]	0	35	35	0	35	35	50	0	0	0	0	0
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	58	58	0	58	58	22	0	0	0	0	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	7	7	0	32	32	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	3.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		Yes	Yes		Yes	Yes	No					
Maximum Recall		No	No		No	No	No					
Pedestrian Recall		No	No		No	No	No					
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	L	R	
C, Cycle Length [s]	80	80	80	80	80	80	
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00	5.00	5.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00	3.00	3.00	
g_i, Effective Green Time [s]	57	75	57	75	14	14	
g / C, Green / Cycle	0.71	0.94	0.71	0.94	0.18	0.18	
(v / s)_i Volume / Saturation Flow Rate	0.20	0.52	0.26	0.71	0.15	0.13	
s, saturation flow rate [veh/h]	5094	1543	5094	1555	3459	2813	
c, Capacity [veh/h]	3614	1447	3614	1457	612	498	
d1, Uniform Delay [s]	4.23	0.32	4.56	0.51	32.07	31.04	
k, delay calibration	0.50	0.31	0.50	0.50	0.04	0.04	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.20	0.96	0.29	3.77	1.53	0.71	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.28	0.56	0.37	0.76	0.87	0.71	
d, Delay for Lane Group [s/veh]	4.42	1.28	4.85	4.29	33.60	31.75	
Lane Group LOS	A	A	A	A	C	C	
Critical Lane Group	No	No	No	Yes	Yes	No	
50th-Percentile Queue Length [veh/ln]	1.48	0.39	2.07	1.53	4.91	3.13	
50th-Percentile Queue Length [ft/ln]	37.10	9.69	51.86	38.18	122.83	78.25	
95th-Percentile Queue Length [veh/ln]	2.67	0.70	3.73	2.75	8.55	5.63	
95th-Percentile Queue Length [ft/ln]	66.78	17.45	93.35	68.73	213.70	140.84	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	4.42	1.28	0.00	4.85	4.29	33.60	0.00	31.75	0.00	0.00	0.00
Movement LOS		A	A		A	A	C		C			
d_A, Approach Delay [s/veh]	3.04			4.59			32.86			0.00		
Approach LOS	A			A			C			A		
d_I, Intersection Delay [s/veh]	8.91											
Intersection LOS	A											
Intersection V/C	0.785											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	73.99	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	32.40	32.40
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.750	2.208
Crosswalk LOS	F	F	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1348	1348	425	0
d_b, Bicycle Delay [s]	4.31	4.29	24.81	40.00
l_b,int, Bicycle LOS Score for Intersection	2.566	2.895	1.560	4.132
Bicycle LOS	B	C	A	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Willow Rd/Bay Rd

Control Type:	Signalized	Delay (sec / veh):	26.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.799

Intersection Setup

Name	Willow Rd		Willow Rd			
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	25.00	100.00	240.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Willow Rd		Willow Rd			
Base Volume Input [veh/h]	64	1389	1175	450	386	76
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	1389	1175	450	386	76
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	366	309	118	102	20
Total Analysis Volume [veh/h]	67	1462	1237	474	406	80
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		1		1	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		1	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	24		15		3	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	60.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	5	2	6	0	4	0
Auxiliary Signal Groups						
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	9	10	8	0	10	0
Maximum Green [s]	16	36	36	0	22	0
Amber [s]	3.0	4.5	4.5	0.0	3.2	0.0
All red [s]	0.5	1.0	1.0	0.0	1.0	0.0
Split [s]	13	58	45	0	22	0
Vehicle Extension [s]	3.0	5.0	3.0	0.0	3.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	31	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	1.5	3.5	3.5	0.0	2.2	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	Yes	Yes		No	
Pedestrian Recall	No	No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	3.50	5.50	5.50	5.50	4.20	4.20
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.50	3.50	3.50	3.50	2.20	2.20
g_i, Effective Green Time [s]	7	53	42	42	18	18
g / C, Green / Cycle	0.09	0.66	0.52	0.52	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.04	0.46	0.39	0.34	0.25	0.06
s, saturation flow rate [veh/h]	1603	3204	3204	1384	1603	1409
c, Capacity [veh/h]	141	2102	1680	726	357	314
d1, Uniform Delay [s]	34.74	8.71	14.76	13.55	31.11	25.61
k, delay calibration	0.11	0.50	0.50	0.50	0.37	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.46	1.93	2.92	4.54	84.49	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.70	0.74	0.65	1.14	0.25
d, Delay for Lane Group [s/veh]	37.20	10.63	17.68	18.09	115.60	26.04
Lane Group LOS	D	B	B	B	F	C
Critical Lane Group	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.30	6.66	8.42	6.36	14.99	1.26
50th-Percentile Queue Length [ft/ln]	32.43	166.41	210.43	158.97	374.81	31.42
95th-Percentile Queue Length [veh/ln]	2.33	10.89	13.18	10.49	22.82	2.26
95th-Percentile Queue Length [ft/ln]	58.37	272.19	329.38	262.36	570.57	56.56

Movement, Approach, & Intersection Results

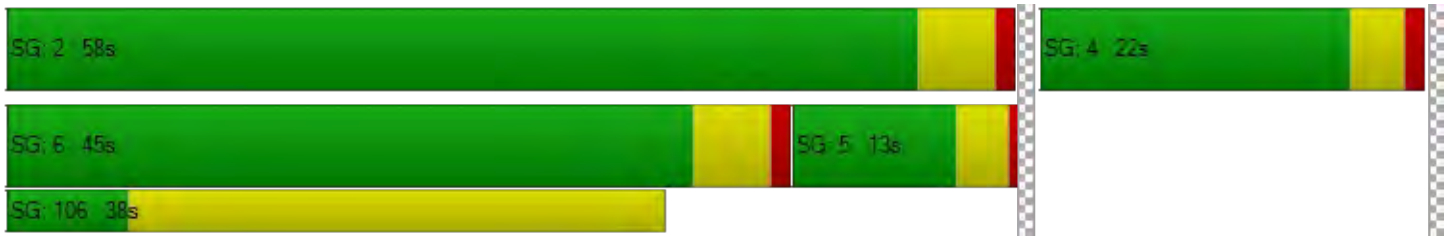
d_M, Delay for Movement [s/veh]	37.20	10.63	17.68	18.09	115.60	26.04
Movement LOS	D	B	B	B	F	C
d_A, Approach Delay [s/veh]	11.80		17.79		100.86	
Approach LOS	B		B		F	
d_I, Intersection Delay [s/veh]	26.17					
Intersection LOS	C					
Intersection V/C	0.799					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	4410.65
d_p, Pedestrian Delay [s]	0.00	0.00	29.76
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.267
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1313	988	445
d_b, Bicycle Delay [s]	4.78	10.33	24.22
l_b,int, Bicycle LOS Score for Intersection	2.821	2.971	1.560
Bicycle LOS	C	C	A

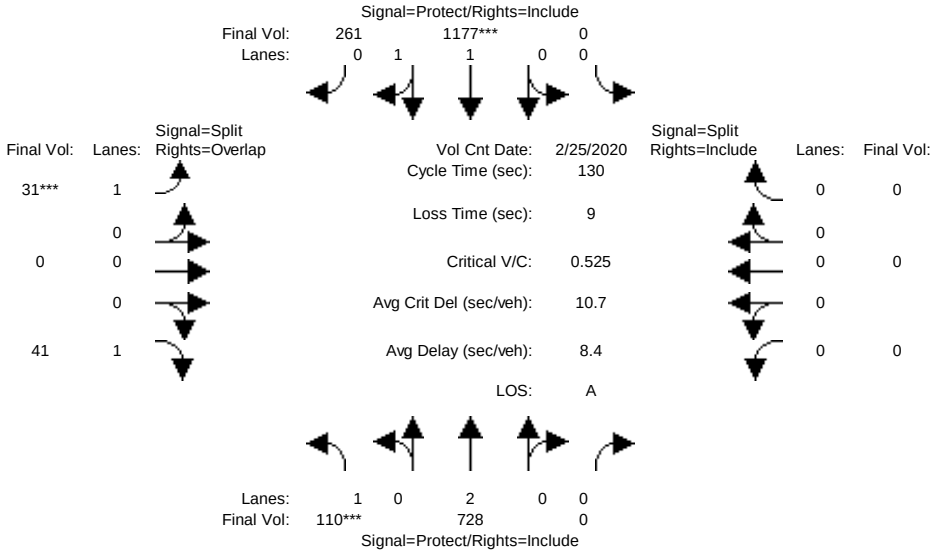
Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #2: University Avenue/O'Brien Drive



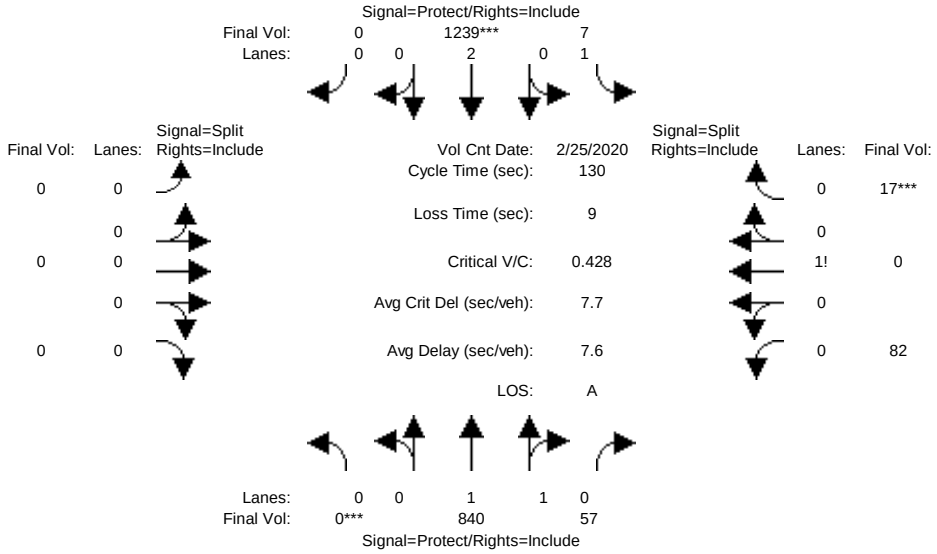
Street Name:	University Avenue						O'Brien Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	10	10	0	8	8	6	6	6	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	98	651	0	0	1058	235	28	0	36	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	98	651	0	0	1058	235	28	0	36	0	0	0
Added Vol:	1	4	0	0	1	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	99	655	0	0	1059	235	28	0	37	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	110	728	0	0	1177	261	31	0	41	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	728	0	0	1177	261	31	0	41	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	110	728	0	0	1177	261	31	0	41	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.92	0.91	0.92	1.00	0.82	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.63	0.37	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	2868	636	1745	0	1562	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.20	0.00	0.00	0.41	0.41	0.02	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.11	0.88	0.00	0.00	0.77	0.77	0.05	0.00	0.16	0.00	0.00	0.00
Volume/Cap:	0.53	0.23	0.00	0.00	0.53	0.53	0.39	0.00	0.16	0.00	0.00	0.00
Uniform Del:	54.3	1.1	0.0	0.0	5.8	5.8	60.2	0.0	47.0	0.0	0.0	0.0
IncremntDel:	2.7	0.0	0.0	0.0	0.2	0.2	3.1	0.0	0.3	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	57.0	1.1	0.0	0.0	6.0	6.0	63.3	0.0	47.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.0	1.1	0.0	0.0	6.0	6.0	63.3	0.0	47.4	0.0	0.0	0.0
LOS by Move:	E	A	A	A	A	A	E	A	D	A	A	A
HCM2kAvgQ:	102	58	0	0	297	293	42	0	37	0	0	0

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #3: University Avenue/Notre Dame Avenue

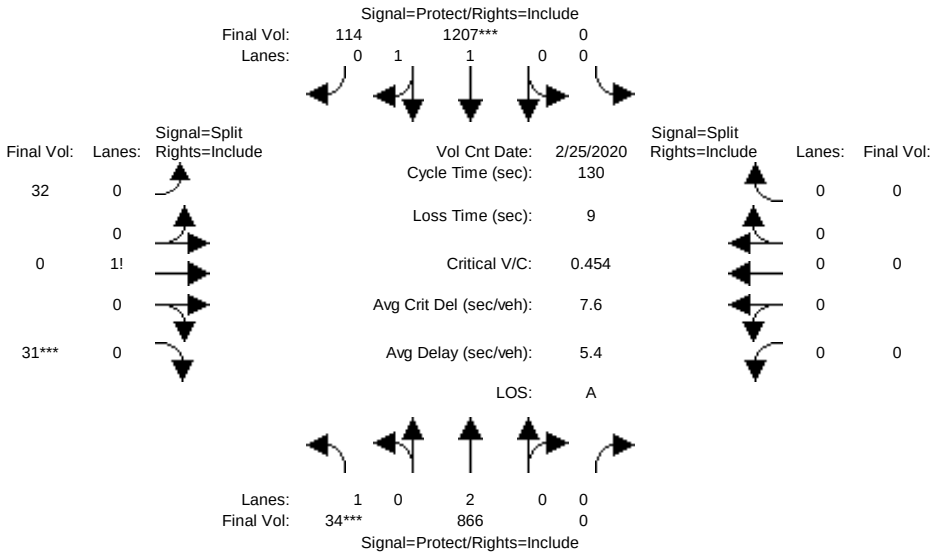


Street Name:	University Avenue						Notre Dame Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	8	8	4	8	0	0	0	0	4	0	4
Y+R:	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	0	734	49	6	1088	0	0	0	0	72	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	734	49	6	1088	0	0	0	0	72	0	15
Added Vol:	0	5	1	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	739	50	6	1090	0	0	0	0	72	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	0	840	57	7	1239	0	0	0	0	82	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	840	57	7	1239	0	0	0	0	82	0	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	840	57	7	1239	0	0	0	0	82	0	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.93	0.95	0.95	1.00	1.00	1.00	1.00	0.94	1.00	0.94
Lanes:	0.00	1.87	0.13	1.00	2.00	0.00	0.00	0.00	0.00	0.83	0.00	0.17
Final Sat.:	0	3349	227	1805	3610	0	0	0	0	1475	0	307
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.00	0.34	0.00	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:	****				****							****
Green/Cycle:	0.00	0.71	0.71	0.09	0.80	0.00	0.00	0.00	0.00	0.13	0.00	0.13
Volume/Cap:	0.00	0.35	0.35	0.04	0.43	0.00	0.00	0.00	0.00	0.43	0.00	0.43
Uniform Del:	0.0	7.1	7.1	54.3	3.9	0.0	0.0	0.0	0.0	52.1	0.0	52.1
IncremntDel:	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	1.3	0.0	1.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	7.2	7.2	54.4	4.0	0.0	0.0	0.0	0.0	53.4	0.0	53.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	7.2	7.2	54.4	4.0	0.0	0.0	0.0	0.0	53.4	0.0	53.4
LOS by Move:	A	A	A	D	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	176	175	6	195	0	0	0	0	100	0	100

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #4: University Avenue/Kavanaugh Drive

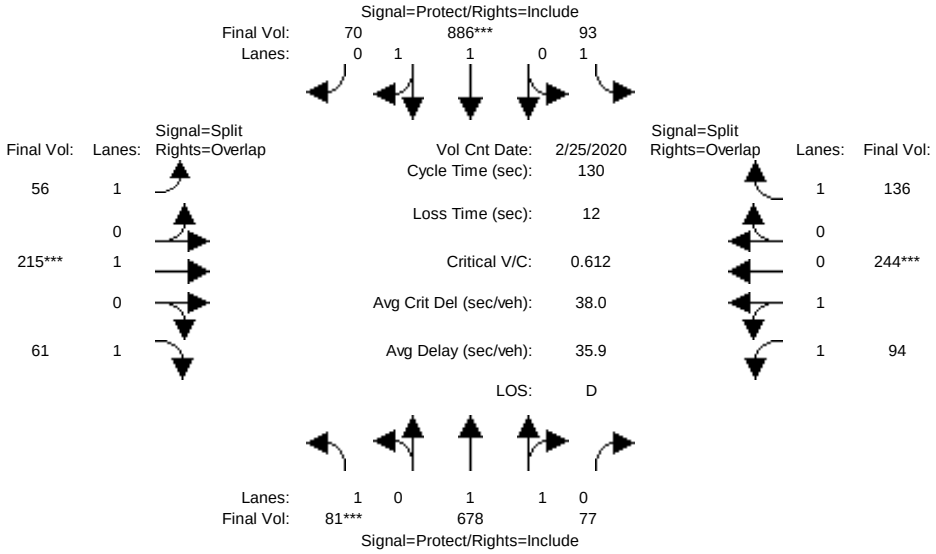


Street Name:	University Avenue						Kavanaugh Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	0	0	8	8	4	0	4	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	3.5	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	29	756	0	0	1060	100	28	0	26	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	756	0	0	1060	100	28	0	26	0	0	0
Added Vol:	1	6	0	0	2	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	762	0	0	1062	100	28	0	27	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	34	866	0	0	1207	114	32	0	31	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	866	0	0	1207	114	32	0	31	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	866	0	0	1207	114	32	0	31	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.94	0.93	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.83	0.17	0.51	0.00	0.49	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3254	306	968	0	933	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.24	0.00	0.00	0.37	0.37	0.03	0.00	0.03	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.04	0.86	0.00	0.00	0.82	0.82	0.07	0.00	0.07	0.00	0.00	0.00
Volume/Cap:	0.45	0.28	0.00	0.00	0.45	0.45	0.45	0.00	0.45	0.00	0.00	0.00
Uniform Del:	60.9	1.7	0.0	0.0	3.5	3.5	57.8	0.0	57.8	0.0	0.0	0.0
IncremntDel:	4.3	0.0	0.0	0.0	0.1	0.1	2.4	0.0	2.4	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	65.2	1.8	0.0	0.0	3.6	3.6	60.2	0.0	60.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.2	1.8	0.0	0.0	3.6	3.6	60.2	0.0	60.2	0.0	0.0	0.0
LOS by Move:	E	A	A	A	A	A	E	A	E	A	A	A
HCM2kAvgQ:	48	86	0	0	204	202	73	0	73	0	0	0

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #5: University Avenue/Bay Road

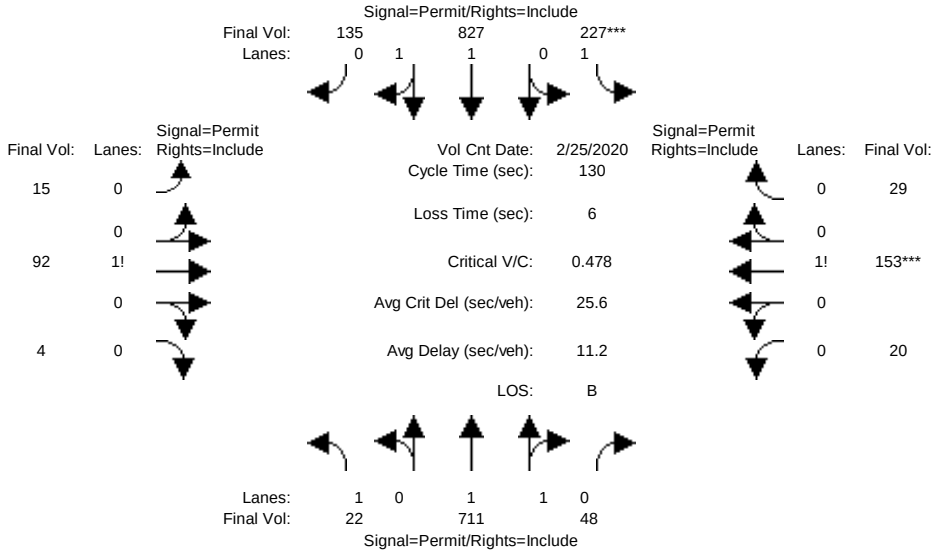


Street Name:	University Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	74	630	68	87	830	66	53	202	56	86	229	128
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	74	630	68	87	830	66	53	202	56	86	229	128
Added Vol:	2	7	4	0	3	0	0	0	1	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	637	72	87	833	66	53	202	57	88	229	128
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	81	678	77	93	886	70	56	215	61	94	244	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	678	77	93	886	70	56	215	61	94	244	136
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	81	678	77	93	886	70	56	215	61	94	244	136
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.93	0.95	0.94	0.93	0.95	1.00	0.81	0.99	0.99	0.76
Lanes:	1.00	1.80	0.20	1.00	1.85	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1805	3192	361	1805	3307	262	1805	1900	1533	1873	1873	1443
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.21	0.05	0.27	0.27	0.03	0.11	0.04	0.05	0.13	0.09
Crit Moves:	****				****			****			****	
Green/Cycle:	0.07	0.41	0.41	0.10	0.44	0.44	0.18	0.18	0.26	0.21	0.21	0.31
Volume/Cap:	0.61	0.52	0.52	0.52	0.61	0.61	0.17	0.61	0.15	0.24	0.61	0.30
Uniform Del:	58.5	28.6	28.6	55.6	28.1	28.1	44.6	48.7	37.3	42.4	46.4	34.0
IncremntDel:	8.2	0.3	0.3	2.6	0.7	0.7	0.2	3.2	0.2	0.1	2.0	0.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	66.7	28.9	28.9	58.2	28.8	28.8	44.8	51.9	37.5	42.5	48.4	34.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.7	28.9	28.9	58.2	28.8	28.8	44.8	51.9	37.5	42.5	48.4	34.4
LOS by Move:	E	C	C	E	C	C	D	D	D	D	D	C
HCM2kAvgQ:	80	287	285	104	387	385	48	215	47	78	236	104

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #6: University Avenue/Runnymede Street

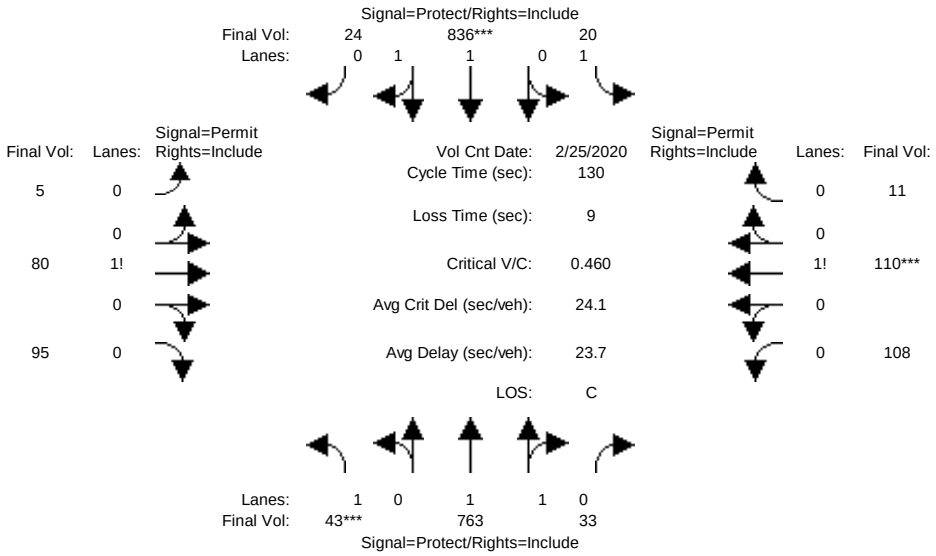


Street Name:	University Avenue						Runnymede Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	8	8	8	8	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	19	619	42	202	730	120	13	82	4	17	136	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	619	42	202	730	120	13	82	4	17	136	26
Added Vol:	1	14	1	0	6	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	633	43	202	736	120	13	82	4	18	136	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	22	711	48	227	827	135	15	92	4	20	153	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	711	48	227	827	135	15	92	4	20	153	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	711	48	227	827	135	15	92	4	20	153	29
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.27	0.94	0.94	0.33	0.93	0.93	0.95	1.08	0.95	0.95	1.14	0.95
Lanes:	1.00	1.87	0.13	1.00	1.72	0.28	0.15	0.81	0.04	0.11	0.72	0.17
Final Sat.:	511	3346	227	634	3037	495	263	1658	81	206	1556	297
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.21	0.36	0.27	0.27	0.06	0.06	0.06	0.10	0.10	0.10
Crit Moves:				****							****	
Green/Cycle:	0.75	0.75	0.75	0.75	0.75	0.75	0.21	0.21	0.21	0.21	0.21	0.21
Volume/Cap:	0.06	0.28	0.28	0.48	0.36	0.36	0.27	0.27	0.27	0.48	0.48	0.48
Uniform Del:	4.3	5.2	5.2	6.4	5.6	5.6	43.5	43.5	43.5	45.5	45.5	45.5
IncremntDel:	0.1	0.1	0.1	0.8	0.1	0.1	0.4	0.4	0.4	0.9	0.9	0.9
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	4.4	5.3	5.3	7.2	5.7	5.7	43.8	43.8	43.8	46.4	46.4	46.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.4	5.3	5.3	7.2	5.7	5.7	43.8	43.8	43.8	46.4	46.4	46.4
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D
HCM2kAvgQ:	6	125	124	90	169	169	85	96	85	163	191	162

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #7: University Avenue/Bell Street



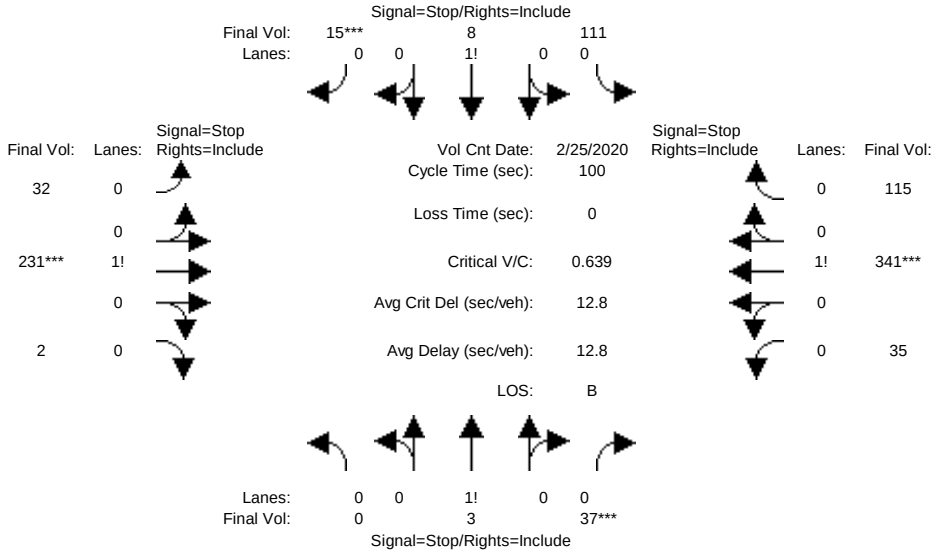
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	37	655	28	18	730	21	4	70	84	94	97	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	655	28	18	730	21	4	70	84	94	97	10
Added Vol:	1	16	1	0	6	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	671	29	18	736	21	4	70	84	95	97	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	43	763	33	20	836	24	5	80	95	108	110	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	763	33	20	836	24	5	80	95	108	110	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	763	33	20	836	24	5	80	95	108	110	11
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.95	0.92	0.92	0.91	0.73	0.73	0.73
Lanes:	1.00	1.92	0.08	1.00	1.94	0.06	0.03	0.44	0.53	0.47	0.48	0.05
Final Sat.:	1805	3440	149	1805	3496	100	44	771	926	653	667	69
Capacity Analysis Module:												
Vol/Sat:	0.02	0.22	0.22	0.01	0.24	0.24	0.10	0.10	0.10	0.17	0.17	0.17
Crit Moves:	****				****						****	
Green/Cycle:	0.05	0.50	0.50	0.07	0.52	0.52	0.36	0.36	0.36	0.36	0.36	0.36
Volume/Cap:	0.46	0.44	0.44	0.16	0.46	0.46	0.29	0.29	0.29	0.46	0.46	0.46
Uniform Del:	59.9	20.7	20.7	56.9	19.7	19.7	29.8	29.8	29.8	32.0	32.0	32.0
IncremntDel:	3.5	0.2	0.2	0.6	0.2	0.2	0.3	0.3	0.3	0.7	0.7	0.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	63.4	20.9	20.9	57.5	19.9	19.9	30.0	30.0	30.0	32.7	32.7	32.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	63.4	20.9	20.9	57.5	19.9	19.9	30.0	30.0	30.0	32.7	32.7	32.7
LOS by Move:	E	C	C	E	B	B	C	C	C	C	C	C
HCM2kAvgQ:	57	261	261	19	275	275	127	127	125	180	180	180

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing Plus Project AM

Intersection #14: Bay Road/Newbridge Street/Ralmar Avenue



Street Name:	Bay Road/Ralmar Avenue						Bay Road/Newbridge Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:30AM												
Base Vol:	0	3	34	100	7	14	29	210	2	32	310	103
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	3	34	100	7	14	29	210	2	32	310	103
Added Vol:	0	0	0	1	0	0	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3	34	101	7	14	29	210	2	32	310	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	3	37	111	8	15	32	231	2	35	341	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3	37	111	8	15	32	231	2	35	341	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	3	37	111	8	15	32	231	2	35	341	115
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.08	0.92	0.83	0.06	0.11	0.12	0.87	0.01	0.07	0.70	0.23
Final Sat.:	0	47	535	471	33	65	84	608	6	55	533	181
Capacity Analysis Module:												
Vol/Sat:	xxxx	0.07	0.07	0.24	0.24	0.24	0.38	0.38	0.38	0.64	0.64	0.64
Crit Moves:			****			****		****			****	
Delay/Veh:	0.0	8.6	8.6	10.3	10.3	10.3	10.8	10.8	10.8	15.0	15.0	15.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.6	8.6	10.3	10.3	10.3	10.8	10.8	10.8	15.0	15.0	15.0
LOS by Move:	*	A	A	B	B	B	B	B	B	B	B	B
ApproachDel:		8.6			10.3			10.8			15.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.6			10.3			10.8			15.0	
LOS by Appr:		A			B			B			B	
AllWayAvgQ:	1.4	1.4	1.4	6.1	6.1	6.1	13.7	13.7	13.7	39.4	39.4	39.4

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #14 Bay Road/Newbridge Street/Ralmar Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Initial Vol:	0	3	34	101	7	14	29	210	2	32	310	105

Major Street Volume: 688
Minor Approach Volume: 122
Minor Approach Volume Threshold: 319

SIGNAL WARRANT DISCLAIMER

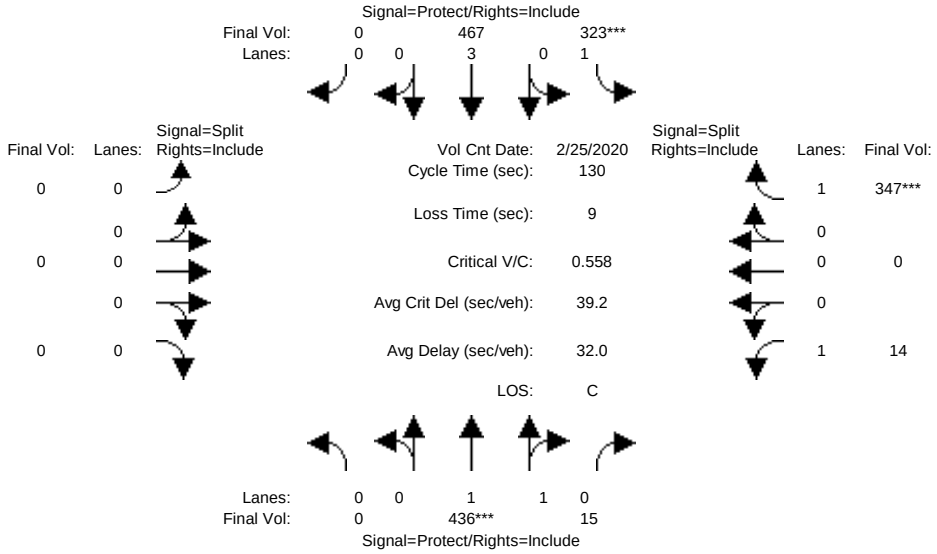
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The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project AM

Intersection #17: Donohoe Street/E Bayshore Road

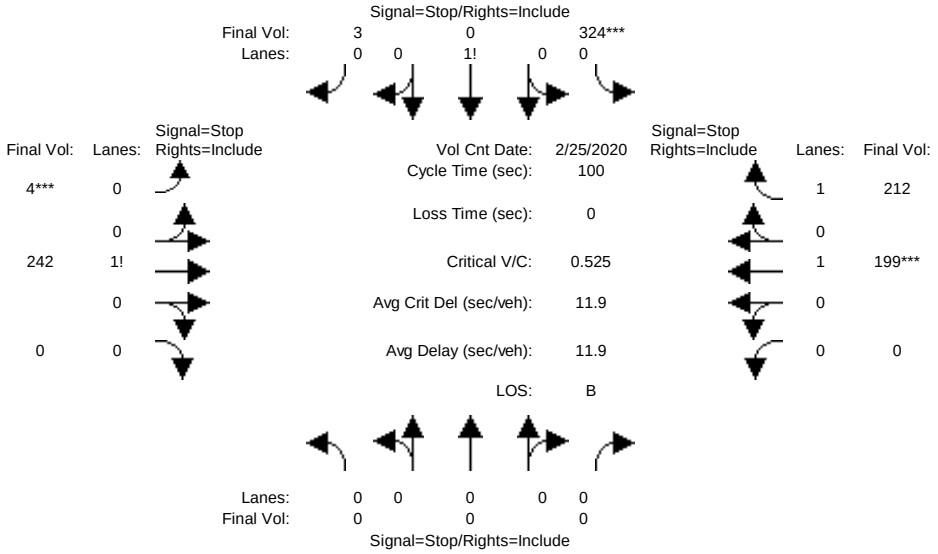


Street Name:	Donohoe Street/E Bayshore Road						Donohoe Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 7:00AM												
Base Vol:	0	374	13	277	400	0	0	0	0	12	0	297
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	374	13	277	400	0	0	0	0	12	0	297
Added Vol:	0	1	0	1	2	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	375	13	278	402	0	0	0	0	12	0	298
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	0	436	15	323	467	0	0	0	0	14	0	347
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	436	15	323	467	0	0	0	0	14	0	347
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	436	15	323	467	0	0	0	0	14	0	347
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.94	0.95	0.91	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.93	0.07	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3471	120	1805	5187	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.13	0.18	0.09	0.00	0.00	0.00	0.00	0.01	0.00	0.21
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.23	0.23	0.32	0.55	0.00	0.00	0.00	0.00	0.38	0.00	0.38
Volume/Cap:	0.00	0.56	0.56	0.56	0.16	0.00	0.00	0.00	0.00	0.02	0.00	0.56
Uniform Del:	0.0	44.6	44.6	36.5	14.7	0.0	0.0	0.0	0.0	24.8	0.0	31.3
IncremntDel:	0.0	0.9	0.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	45.5	45.5	37.7	14.7	0.0	0.0	0.0	0.0	24.8	0.0	32.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	45.5	45.5	37.7	14.7	0.0	0.0	0.0	0.0	24.8	0.0	32.5
LOS by Move:	A	D	D	D	B	A	A	A	A	C	A	C
HCM2kAvgQ:	0	220	219	272	82	0	0	0	0	8	0	276

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing Plus Project AM

Intersection #19: Woodland Avenue/Manhattan Avenue



Street Name:	Manhattan Avenue						Woodland Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:15AM												
Base Vol:	0	0	0	216	0	3	4	220	0	0	181	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	216	0	3	4	220	0	0	181	161
Added Vol:	0	0	0	79	0	0	0	0	0	0	0	32
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	295	0	3	4	220	0	0	181	193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	324	0	3	4	242	0	0	199	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	324	0	3	4	242	0	0	199	212
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	324	0	3	4	242	0	0	199	212
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.99	0.00	0.01	0.02	0.98	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	617	0	6	11	626	0	0	609	690
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	0.53	xxxx	0.53	0.39	0.39	xxxx	xxxx	0.33	0.31
Crit Moves:				****			****				****	
Delay/Veh:	0.0	0.0	0.0	14.1	0.0	14.1	11.6	11.6	0.0	0.0	11.1	9.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	14.1	0.0	14.1	11.6	11.6	0.0	0.0	11.1	9.8
LOS by Move:	*	*	*	B	*	B	B	B	*	*	B	A
ApproachDel:	xxxxxx			14.1			11.6			10.4		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			14.1			11.6			10.4		
LOS by Appr:	*			B			B			B		
AllWayAvgQ:	0.0	0.0	0.0	23.9	23.9	23.9	14.0	14.0	14.0	0.0	11.1	10.1

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Woodland Avenue/Manhattan Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	0	0	0	1!	0	0	1	0	0	1
Initial Vol:	0	0	0	295	0	3	4	220	0	0	181	193

Major Street Volume: 598
Minor Approach Volume: 298
Minor Approach Volume Threshold: 462

SIGNAL WARRANT DISCLAIMER

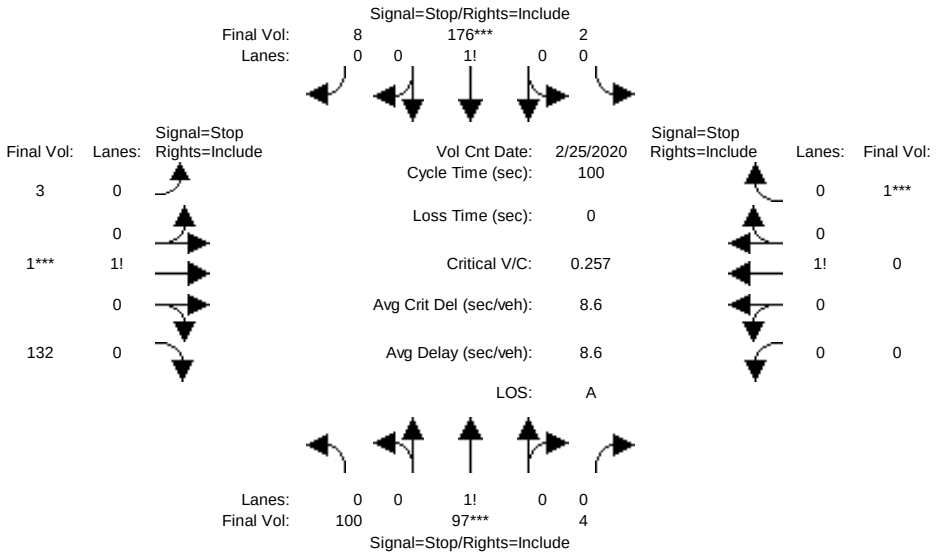
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing Plus Project AM

Intersection #20: O'Conner Street/Manhattan Avenue



Street Name:	Manhattan Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:15AM												
Base Vol:	85	64	4	2	100	5	2	1	105	0	0	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	85	64	4	2	100	5	2	1	105	0	0	1
Added Vol:	7	25	0	0	62	2	1	0	16	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	92	89	4	2	162	7	3	1	121	0	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	100	97	4	2	176	8	3	1	132	0	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	97	4	2	176	8	3	1	132	0	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	100	97	4	2	176	8	3	1	132	0	0	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.50	0.48	0.02	0.01	0.95	0.04	0.02	0.01	0.97	0.00	0.00	1.00
Final Sat.:	389	377	17	9	755	33	19	6	781	0	0	760
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.26	0.23	0.23	0.23	0.17	0.17	0.17	xxxx	xxxx	0.00
Crit Moves:		****			****			****				****
Delay/Veh:	8.9	8.9	8.9	8.7	8.7	8.7	7.9	7.9	7.9	0.0	0.0	7.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.9	8.9	8.9	8.7	8.7	8.7	7.9	7.9	7.9	0.0	0.0	7.3
LOS by Move:	A	A	A	A	A	A	A	A	A	*	*	A
ApproachDel:	8.9			8.7			7.9			7.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.9			8.7			7.9			7.3		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	8.1	8.1	8.1	7.1	7.1	7.1	4.3	4.3	4.3	0.0	0.0	0.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #20 O'Conner Street/Manhattan Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	0 0	1
Initial Vol:	92	89	4	2	162	7	3	1	121	0	0	1

Major Street Volume: 356
Minor Approach Volume: 125
Minor Approach Volume Threshold: 495

SIGNAL WARRANT DISCLAIMER

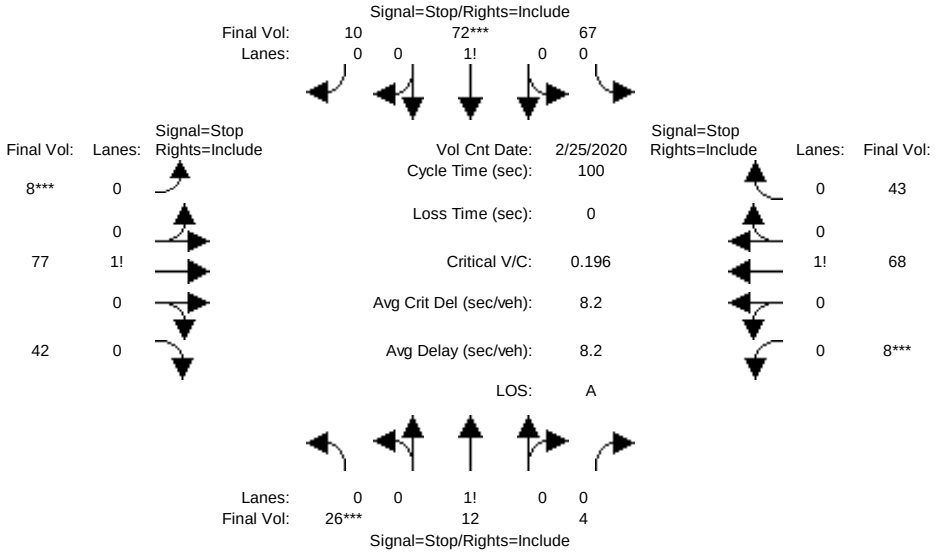
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing Plus Project AM

Intersection #21: O'Conner Street/Euclid Avenue



Street Name:	Euclid Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:45AM												
Base Vol:	24	11	4	46	66	8	6	70	39	7	61	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	11	4	46	66	8	6	70	39	7	61	33
Added Vol:	0	0	0	16	0	1	1	1	0	0	2	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	11	4	62	66	9	7	71	39	7	63	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	26	12	4	67	72	10	8	77	42	8	68	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	12	4	67	72	10	8	77	42	8	68	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	12	4	67	72	10	8	77	42	8	68	43
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.28	0.10	0.45	0.48	0.07	0.06	0.61	0.33	0.06	0.58	0.36
Final Sat.:	450	206	75	345	367	50	48	491	269	51	463	294
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.20	0.20	0.20	0.16	0.16	0.16	0.15	0.15	0.15
Crit Moves:	****				****		****			****		
Delay/Veh:	7.9	7.9	7.9	8.6	8.6	8.6	8.0	8.0	8.0	8.0	8.0	8.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.9	7.9	7.9	8.6	8.6	8.6	8.0	8.0	8.0	8.0	8.0	8.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.9			8.6			8.0			8.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.9			8.6			8.0			8.0		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	1.4	1.4	1.4	5.5	5.5	5.5	4.3	4.3	4.3	3.9	3.9	3.9

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #21 O'Conner Street/Euclid Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0	0		0 0 1! 0	0		0 0 1! 0	0		0 0 1! 0	0	
Initial Vol:	24	11	4	62	66	9	7	71	39	7	63	40

Major Street Volume: 227
Minor Approach Volume: 137
Minor Approach Volume Threshold: 615

SIGNAL WARRANT DISCLAIMER

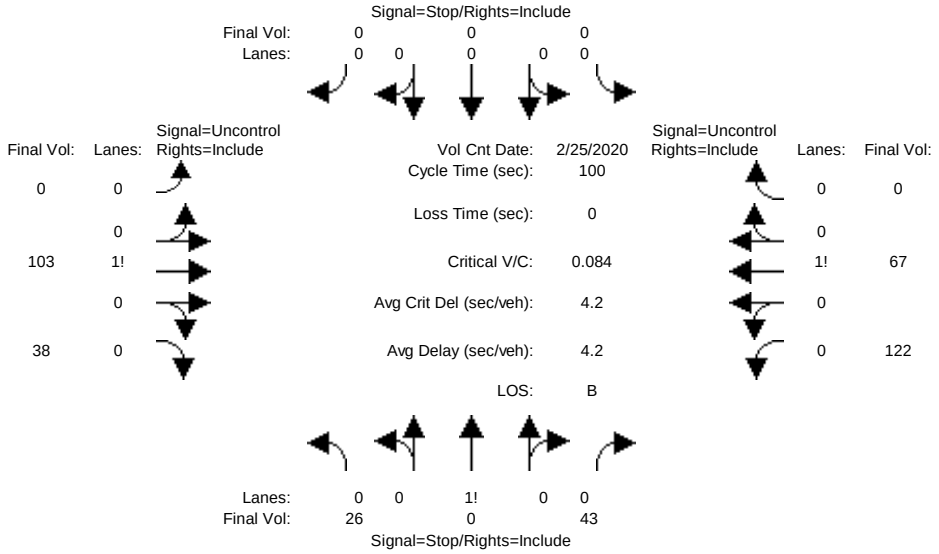
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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing Plus Project AM

Intersection #22: W Bayshore Road/Euclid Avenue



Street Name:	Euclid Avenue						W Bayshore Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module: >> Count Date: 25 Feb 2020 << 7:00AM												
Base Vol:	15	0	33	0	0	0	0	71	27	93	34	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	0	33	0	0	0	0	71	27	93	34	0
Added Vol:	5	0	0	0	0	0	0	7	2	0	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	0	33	0	0	0	0	78	29	93	51	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
PHF Volume:	26	0	43	0	0	0	0	103	38	122	67	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	26	0	43	0	0	0	0	103	38	122	67	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	434	434	123	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	141	xxxx	xxxxx
Potent Cap.:	583	518	934	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1455	xxxx	xxxxx
Move Cap.:	543	472	933	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1455	xxxx	xxxxx
Volume/Cap:	0.05	0.00	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	6.9	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	734	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		10.4		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B		*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

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Intersection #22 W Bayshore Road/Euclid Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	20	0	33	0	0	0	0	78	29	93	51	0
ApproachDel:	10.4			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=53]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=304]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #22 W Bayshore Road/Euclid Avenue

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	20	0	33	0	0	0	0	78	29	93	51	0

Major Street Volume: 251
Minor Approach Volume: 53
Minor Approach Volume Threshold: 588

SIGNAL WARRANT DISCLAIMER
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8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	20.2	1.7
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	103.1	87.4	90.8
Total Delay (hr)	0.1	0.8	8.0	9.0	8.3	0.6	2.9	2.9	1.1	1.2	91.5	7.6
Total Del/Veh (s)	54.5	37.0	70.0	96.5	92.9	8.0	107.7	26.5	9.0	407.2	435.2	448.4
Avg Speed (mph)	4	5	3	2	2	12	2	6	11	3	3	3
Vehicles Entered	6	80	410	324	313	261	97	388	423	10	732	59

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	22.2
Denied Del/Veh (s)	24.9
Total Delay (hr)	134.1
Total Del/Veh (s)	152.3
Avg Speed (mph)	3
Vehicles Entered	3103

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	4.4	2.0	8.8	1.2	15.0	32.2	63.6
Total Del/Veh (s)	58.5	23.6	31.8	10.2	92.0	107.7	62.8
Avg Speed (mph)	16	22	6	12	6	5	8
Vehicles Entered	259	298	980	411	581	1058	3587

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	1.0	0.9	3.6	0.6	0.6	0.6	0.0	0.0	0.0
Total Delay (hr)	5.7	1.1	0.7	0.2	1.1	1.8	0.9	6.3	0.1	13.4	3.7	0.8
Total Del/Veh (s)	47.1	45.8	33.0	52.2	52.3	21.8	69.6	32.4	30.8	276.3	18.7	7.2
Avg Speed (mph)	3	3	4	6	6	11	16	20	20	1	10	14
Vehicles Entered	430	86	73	14	78	296	44	659	13	164	704	389

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.5
Total Delay (hr)	35.7
Total Del/Veh (s)	42.6
Avg Speed (mph)	12
Vehicles Entered	2950

15: NB US 101 On-ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	All
Denied Delay (hr)	6.4	5.7	0.0	0.0	12.1
Denied Del/Veh (s)	43.9	45.4	0.1	0.2	30.5
Total Delay (hr)	5.7	0.7	6.8	0.1	13.4
Total Del/Veh (s)	40.7	6.2	72.0	3.1	34.3
Avg Speed (mph)	6	15	3	19	6
Vehicles Entered	507	433	332	124	1396

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBR	All
Denied Delay (hr)	0.0	47.1	1.3	1.7	0.2	0.8	0.0	51.0
Denied Del/Veh (s)	0.0	174.4	188.5	16.1	9.4	15.0	0.1	85.5
Total Delay (hr)	1.7	151.0	2.8	10.8	0.5	0.4	0.4	167.7
Total Del/Veh (s)	11.9	686.4	512.8	105.5	29.0	7.6	78.0	307.8
Avg Speed (mph)	10	2	3	5	13	21	2	3
Vehicles Entered	504	752	19	359	65	187	18	1904

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.2	0.4	0.0	0.1	0.1	0.1	0.3
Total Delay (hr)	0.1	5.3	2.0	0.3	0.5	0.1	8.3
Total Del/Veh (s)	30.9	35.3	22.3	5.5	29.6	18.8	25.9
Avg Speed (mph)	16	15	5	10	12	14	13
Vehicles Entered	14	524	321	198	63	12	1132

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	1.4	0.0	0.0	1.3	2.7
Denied Del/Veh (s)	16.3	0.0	0.0	3.4	3.3
Total Delay (hr)	8.3	2.4	1.3	10.7	22.7
Total Del/Veh (s)	93.0	9.5	11.4	28.7	27.4
Avg Speed (mph)	5	18	16	6	10
Vehicles Entered	315	908	396	1339	2958

Total Network Performance

Denied Delay (hr)	88.6
Denied Del/Veh (s)	51.3
Total Delay (hr)	452.1
Total Del/Veh (s)	260.5
Avg Speed (mph)	8
Vehicles Entered	5824

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	34	131	353	225	337	314	252	152	160	220	252	175
Average Queue (ft)	7	48	273	206	285	231	78	70	47	89	93	105
95th Queue (ft)	27	105	423	290	315	349	202	145	133	174	184	173
Link Distance (ft)		337	337		266	266	266			282	282	
Upstream Blk Time (%)			26		55	21	5			1	0	
Queuing Penalty (veh)			68		253	100	25			3	1	
Storage Bay Dist (ft)	200			175				200	200			125
Storage Blk Time (%)		0		34	73			2	2	1	3	4
Queuing Penalty (veh)		0		162	184			3	3	1	11	8

Intersection: 8: University Avenue & Donohoe Street

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	244	2310	2306
Average Queue (ft)	30	1288	1285
95th Queue (ft)	164	2739	2718
Link Distance (ft)		2291	2291
Upstream Blk Time (%)		30	29
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)	250		
Storage Blk Time (%)		66	
Queuing Penalty (veh)		8	

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	226	286	249	368	369	254	131	250	275	985	992
Average Queue (ft)	109	167	112	251	272	75	68	157	246	766	768
95th Queue (ft)	213	249	212	373	380	160	117	281	346	1274	1265
Link Distance (ft)	3124	3124		354	354	354				939	939
Upstream Blk Time (%)				0	1	0				23	23
Queuing Penalty (veh)				2	3	0				249	249
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		5	0			0		2	5	37	
Queuing Penalty (veh)		7	1			0		10	35	281	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	177	184	166	331	75	131	271	261	381	365	354	216
Average Queue (ft)	140	158	105	133	71	31	109	159	344	209	169	76
95th Queue (ft)	193	189	174	276	83	85	202	235	431	412	325	166
Link Distance (ft)	159	159	159	645			5041		354	354	354	354
Upstream Blk Time (%)	8	23	5						59	1	0	
Queuing Penalty (veh)	16	46	11						233	4	0	
Storage Bay Dist (ft)					25	175		240				
Storage Blk Time (%)				52	52		1	1				
Queuing Penalty (veh)				157	48		3	3				

Intersection: 15: NB US 101 On-ramp & Donohoe Street

Movement	EB	EB	WB	WB
Directions Served	T	R	L	T
Maximum Queue (ft)	451	422	364	370
Average Queue (ft)	187	151	251	73
95th Queue (ft)	511	469	422	297
Link Distance (ft)	429	429	337	337
Upstream Blk Time (%)	22	19	12	3
Queuing Penalty (veh)	0	0	37	9
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	T	T	T	T	TR	L	L	T	R	R
Maximum Queue (ft)	151	169	3095	3086	295	443	585	295	118	67
Average Queue (ft)	58	78	1948	1937	211	209	215	72	50	20
95th Queue (ft)	120	139	3678	3670	417	419	561	358	92	56
Link Distance (ft)	266	266	3057	3057			1046	1046		230
Upstream Blk Time (%)			35	34			3	3		
Queuing Penalty (veh)			0	0			0	0		
Storage Bay Dist (ft)					245	475			200	
Storage Blk Time (%)				67	5	6	6			
Queuing Penalty (veh)				237	15	12	12			

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	250	458	162	182	125	70	106
Average Queue (ft)	121	205	81	104	69	13	29
95th Queue (ft)	249	342	152	186	145	46	80
Link Distance (ft)		2014	159	159		999	999
Upstream Blk Time (%)			1	3			
Queuing Penalty (veh)			2	10			
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	1	10		21	0		
Queuing Penalty (veh)	3	29		25	1		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	690	213	325	325	332
Average Queue (ft)	294	18	55	190	199
95th Queue (ft)	710	122	204	419	418
Link Distance (ft)	846	939	939	282	282
Upstream Blk Time (%)	7			20	24
Queuing Penalty (veh)	0			177	211
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 2967

8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.2	0.6
Total Delay (hr)	0.0	0.7	2.5	6.4	5.1	0.6	1.4	1.8	0.7	0.2	8.9	0.1
Total Del/Veh (s)	29.4	30.9	24.2	45.3	38.5	5.2	52.9	16.2	5.5	63.3	36.8	6.8
Avg Speed (mph)	6	6	7	4	5	14	3	8	13	12	15	22
Vehicles Entered	4	77	369	499	472	418	92	396	435	12	854	68

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	28.4
Total Del/Veh (s)	27.3
Avg Speed (mph)	11
Vehicles Entered	3696

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	4.2	2.0	6.4	1.2	7.7	4.1	25.6
Total Del/Veh (s)	54.0	24.0	23.2	10.0	37.4	11.0	22.6
Avg Speed (mph)	16	22	8	12	10	17	14
Vehicles Entered	268	294	984	414	734	1334	4028

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.6	0.9	3.6	0.7	0.6	0.6	0.0	0.0	0.0
Total Delay (hr)	3.1	0.4	0.2	0.3	1.0	1.5	0.8	7.6	0.1	3.1	5.6	1.8
Total Del/Veh (s)	25.6	14.8	11.1	65.7	45.8	17.5	69.6	39.2	36.7	52.2	23.1	13.8
Avg Speed (mph)	5	7	8	5	7	12	16	19	19	5	8	10
Vehicles Entered	432	86	71	14	80	301	41	657	13	212	868	472

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.5
Total Delay (hr)	25.5
Total Del/Veh (s)	27.7
Avg Speed (mph)	14
Vehicles Entered	3247

15: NB US 101 On-ramp/Private DWY & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	All
Denied Delay (hr)	42.1	37.8	0.0	0.0	79.9
Denied Del/Veh (s)	283.4	291.6	0.0	0.0	176.2
Total Delay (hr)	7.3	11.7	1.0	0.2	20.2
Total Del/Veh (s)	57.1	102.4	7.8	5.1	48.4
Avg Speed (mph)	4	2	14	17	5
Vehicles Entered	451	397	470	161	1479

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.4
Denied Del/Veh (s)	0.0	0.1	0.1	1.5	0.5	3.1	0.1	0.6
Total Delay (hr)	2.2	6.2	0.1	7.7	0.5	0.3	0.0	17.0
Total Del/Veh (s)	15.2	22.0	10.6	71.1	25.2	6.6	5.4	27.6
Avg Speed (mph)	8	20	21	7	14	21	11	16
Vehicles Entered	517	998	24	379	69	184	18	2189

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.2	0.5	0.1	0.2	0.1	0.1	0.3
Total Delay (hr)	0.2	5.5	3.9	0.6	0.2	0.0	10.4
Total Del/Veh (s)	46.7	37.2	36.6	9.9	10.1	4.8	30.2
Avg Speed (mph)	13	15	3	7	18	20	12
Vehicles Entered	12	518	373	230	66	12	1211

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.0	0.0	0.0	0.1
Total Delay (hr)	2.8	2.2	1.1	1.2	7.3
Total Del/Veh (s)	32.4	8.4	10.6	2.4	7.8
Avg Speed (mph)	10	19	17	18	17
Vehicles Entered	312	924	385	1757	3378

Total Network Performance

Denied Delay (hr)	81.0
Denied Del/Veh (s)	46.3
Total Delay (hr)	142.7
Total Del/Veh (s)	78.5
Avg Speed (mph)	16
Vehicles Entered	6141

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB
Directions Served	L	T	T	T	TR	L	LT	T	T	TR	R	L
Maximum Queue (ft)	22	53	62	60	293	225	305	276	205	76	92	120
Average Queue (ft)	2	17	15	7	143	199	247	152	32	33	41	49
95th Queue (ft)	12	42	43	43	247	272	333	307	114	61	74	98
Link Distance (ft)		314	314	314	314		261	261	261	261	261	
Upstream Blk Time (%)					0		18	1	0			
Queuing Penalty (veh)					0		50	4	0			
Storage Bay Dist (ft)	200					175						200
Storage Blk Time (%)						16	38					
Queuing Penalty (veh)						57	97					

Intersection: 8: University Avenue & Donohoe Street

Movement	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	T	R	L	T	T	R
Maximum Queue (ft)	90	174	196	168	75	376	393	299
Average Queue (ft)	31	91	93	78	15	238	242	57
95th Queue (ft)	75	154	159	140	52	340	351	199
Link Distance (ft)		258	258			2268	2268	
Upstream Blk Time (%)		0	0					
Queuing Penalty (veh)		0	0					
Storage Bay Dist (ft)	200			125	250			250
Storage Blk Time (%)		0	2	0		7	8	
Queuing Penalty (veh)		0	7	1		1	5	

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	235	299	241	338	347	123	102	250	274	477	414
Average Queue (ft)	103	165	105	206	226	54	51	213	231	196	196
95th Queue (ft)	212	248	196	323	330	95	90	277	296	424	350
Link Distance (ft)	3124	3124		336	336	336				939	939
Upstream Blk Time (%)				0	0						
Queuing Penalty (veh)				1	1						
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		4	0			0		2	9	1	
Queuing Penalty (veh)		6	1			0		14	57	6	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	L	TR	L	T	R	L	T	TR	L	T
Maximum Queue (ft)	160	171	157	159	60	304	100	99	370	276	302	308
Average Queue (ft)	91	101	79	76	11	116	86	28	145	179	147	180
95th Queue (ft)	158	165	146	140	38	248	115	72	303	271	246	279
Link Distance (ft)	154	154	154	154		645			5033		336	336
Upstream Blk Time (%)	1	1	1	1							0	0
Queuing Penalty (veh)	1	2	1	1							0	0
Storage Bay Dist (ft)					50		50	175		240		
Storage Blk Time (%)					0	25	33		2	3		
Queuing Penalty (veh)					2	77	30		9	10		

Intersection: 10: University Avenue & Woodland Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	310	284
Average Queue (ft)	192	115
95th Queue (ft)	285	230
Link Distance (ft)	336	336
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: NB US 101 On-ramp/Private DWY & Donohoe Street

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB
Directions Served	LT	T	T	TR	L	T	T	T	TR
Maximum Queue (ft)	262	435	451	473	122	37	23	19	45
Average Queue (ft)	37	110	426	442	46	3	3	1	8
95th Queue (ft)	163	373	483	472	100	20	16	10	32
Link Distance (ft)	424	424	424	424	314	314	314	314	314
Upstream Blk Time (%)	1	3	42	94					
Queuing Penalty (veh)	0	0	0	0					
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	T	T	TR	L	L	T	R
Maximum Queue (ft)	57	93	133	149	390	361	230	196	336	374	153	109
Average Queue (ft)	21	32	61	77	207	143	47	96	188	170	44	49
95th Queue (ft)	48	78	119	132	333	299	137	170	380	390	122	86
Link Distance (ft)	261	261	261	261	3059	3059	3059			1022	1022	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)								245	475			200
Storage Blk Time (%)							0	0	2	2		
Queuing Penalty (veh)							0	0	4	5		

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	SB
Directions Served	R
Maximum Queue (ft)	34
Average Queue (ft)	14
95th Queue (ft)	37
Link Distance (ft)	204
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	250	431	160	199	125	46	61
Average Queue (ft)	139	209	123	158	103	9	19
95th Queue (ft)	253	338	180	218	162	32	52
Link Distance (ft)		2014	154	154		998	998
Upstream Blk Time (%)			1	14			
Queuing Penalty (veh)			4	43			
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	0	10		43	1		
Queuing Penalty (veh)	1	29		51	2		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	342	153	256	160	145
Average Queue (ft)	141	11	46	12	24
95th Queue (ft)	357	82	159	80	87
Link Distance (ft)	846	939	939	258	258
Upstream Blk Time (%)				0	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 580

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	University Ave/Bayfront Expy	Signalized	HCM 6th Edition	NB Right	0.984	120.4	F
11	Willow Rd/NB US-101 Ramps	Signalized	HCM 6th Edition	WB Right	0.617	115.7	F
12	Willow Rd/SB US-101 Ramps	Signalized	HCM 6th Edition	EB Right	0.692	14.7	B
13	Willow Rd/Bay Rd	Signalized	HCM 6th Edition	NB Left	0.680	23.0	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: University Ave/Bayfront Expy

Control Type:	Signalized	Delay (sec / veh):	120.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.984

Intersection Setup

Name	University Ave		Bayfront Expy		Bayfront Expy	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	2	0	1	2	0
Entry Pocket Length [ft]	175.00	1260.00	100.00	430.00	830.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	University Ave		Bayfront Expy		Bayfront Expy	
Base Volume Input [veh/h]	35	1833	3341	31	454	795
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	1833	3341	31	454	795
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	472	861	8	117	205
Total Analysis Volume [veh/h]	36	1890	3444	32	468	820
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		1		0	
v_ci, Inbound Pedestrian Volume crossing mi	1		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	8		23		6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	200
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	198.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Split	Overlap	Permissive	Permissive	Protected	Permissive
Signal Group	4	4	6	0	5	2
Auxiliary Signal Groups		4,5				
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	12	12	10	0	11	10
Maximum Green [s]	15	15	175	0	50	60
Amber [s]	3.0	3.0	5.0	0.0	3.0	5.4
All red [s]	1.0	1.0	1.0	0.0	0.5	0.5
Split [s]	38	38	132	0	30	162
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	5	5	5	0	0	10
Pedestrian Clearance [s]	29	29	35	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	4.0	0.0	1.5	3.9
Minimum Recall	No	No	Yes		No	Yes
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	200	200	200	200	200	200
L, Total Lost Time per Cycle [s]	4.00	3.50	6.00	6.00	3.50	5.90
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	0.00	4.00	4.00	1.50	3.90
g_i, Effective Green Time [s]	34	64	126	126	27	156
g / C, Green / Cycle	0.17	0.32	0.63	0.63	0.13	0.78
(v / s)_i Volume / Saturation Flow Rate	0.01	0.46	0.68	0.02	0.14	0.16
s, saturation flow rate [veh/h]	3459	4151	5094	1558	3459	5094
c, Capacity [veh/h]	586	1336	3212	982	459	3979
d1, Uniform Delay [s]	69.76	67.29	36.97	13.94	86.78	5.71
k, delay calibration	0.04	0.36	0.50	0.50	0.04	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	190.01	39.41	0.06	17.32	0.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	1.42	1.07	0.03	1.02	0.21
d, Delay for Lane Group [s/veh]	69.77	257.30	76.38	14.00	104.10	5.83
Lane Group LOS	E	F	F	B	F	A
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	0.78	46.00	60.26	0.56	12.85	2.78
50th-Percentile Queue Length [ft/ln]	19.60	1150.07	1506.57	14.10	321.25	69.38
95th-Percentile Queue Length [veh/ln]	1.41	69.19	77.70	1.02	18.90	5.00
95th-Percentile Queue Length [ft/ln]	35.28	1729.77	1942.57	25.38	472.60	124.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	69.77	257.30	76.38	14.00	104.10	5.83
Movement LOS	E	F	F	B	F	A
d_A, Approach Delay [s/veh]	253.79		75.80		41.54	
Approach LOS	F		E		D	
d_I, Intersection Delay [s/veh]	120.45					
Intersection LOS	F					
Intersection V/C	0.984					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	3710.63	0.00	0.00
d_p, Pedestrian Delay [s]	91.20	0.00	91.20
l_p,int, Pedestrian LOS Score for Intersection	3.026	0.000	4.109
Crosswalk LOS	C	F	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	340	1260	1561
d_b, Bicycle Delay [s]	69.17	13.85	4.83
l_b,int, Bicycle LOS Score for Intersection	1.560	3.471	2.268
Bicycle LOS	A	C	B

Sequence

Ring 1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Willow Rd/NB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	115.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.617

Intersection Setup

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	405.00	100.00	100.00	100.00	175.00	100.00	195.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Base Volume Input [veh/h]	0	947	147	0	1393	460	0	0	0	350	0	761
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	947	147	0	1393	460	0	0	0	350	0	761
Peak Hour Factor	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	257	40	0	379	125	0	0	0	95	0	207
Total Analysis Volume [veh/h]	0	1029	160	0	1514	500	0	0	0	380	0	827
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	9			0			0			2		
v_ci, Inbound Pedestrian Volume crossing mi	2			0			0			9		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			17			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	145
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	2.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	0	0	0	3	0	3
Auxiliary Signal Groups			3,6			2,3						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	4	4	0	4	4	0	0	0	4	0	4
Maximum Green [s]	0	35	35	0	35	35	0	0	0	24	0	24
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	0.0	0.0	0.0	3.0	0.0	3.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0
Split [s]	0	120	120	0	120	120	0	0	0	25	0	25
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	30	30	0	7	7	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No					No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	0.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall		Yes	Yes		Yes	Yes				No		
Maximum Recall		No	No		No	No				No		
Pedestrian Recall		No	No		No	No				No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R		L	R
C, Cycle Length [s]	145	145	145	145		145	145
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00		5.00	5.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00		3.00	3.00
g_i, Effective Green Time [s]	116	140	116	140		20	20
g / C, Green / Cycle	0.80	0.97	0.80	0.97		0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.20	0.10	0.30	0.32		0.11	0.29
s, saturation flow rate [veh/h]	5094	1559	5094	1547		3459	2813
c, Capacity [veh/h]	4070	1505	4070	1494		478	389
d1, Uniform Delay [s]	3.66	0.10	4.16	0.13		60.44	62.42
k, delay calibration	0.50	0.09	0.50	0.50		0.04	0.31
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	0.15	0.02	0.26	0.60		1.16	512.93
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.11	0.37	0.33		0.80	2.13
d, Delay for Lane Group [s/veh]	3.81	0.12	4.42	0.73		61.60	575.35
Lane Group LOS	A	A	A	A		E	F
Critical Lane Group	No	No	Yes	No		No	Yes
50th-Percentile Queue Length [veh/ln]	2.19	0.01	3.67	0.25		6.82	34.81
50th-Percentile Queue Length [ft/ln]	54.86	0.26	91.76	6.28		170.49	870.16
95th-Percentile Queue Length [veh/ln]	3.95	0.02	6.61	0.45		11.10	55.43
95th-Percentile Queue Length [ft/ln]	98.74	0.46	165.16	11.30		277.56	1385.86

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	3.81	0.12	0.00	4.42	0.73	0.00	0.00	0.00	61.60	0.00	575.35
Movement LOS		A	A		A	A				E		F
d_A, Approach Delay [s/veh]	3.32			3.51			0.00			413.61		
Approach LOS	A			A			A			F		
d_I, Intersection Delay [s/veh]	115.70											
Intersection LOS	F											
Intersection V/C	0.617											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	337.54
d_p, Pedestrian Delay [s]	0.00	0.00	64.72	64.72
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	1.935	2.635
Crosswalk LOS	F	F	A	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1599	1599	0	276
d_b, Bicycle Delay [s]	2.93	2.95	72.50	53.88
l_b,int, Bicycle LOS Score for Intersection	2.214	2.667	4.132	1.560
Bicycle LOS	B	B	D	A

Sequence

Ring 1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Willow Rd/SB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.692

Intersection Setup

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	2	0	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	300.00	100.00	100.00	100.00	150.00	100.00	170.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			35.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Base Volume Input [veh/h]	0	848	263	0	917	826	247	0	435	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	848	263	0	917	826	247	0	435	0	0	0
Peak Hour Factor	1.0000	0.8800	0.8800	1.0000	0.8800	0.8800	0.8800	1.0000	0.8800	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	241	75	0	261	235	70	0	124	0	0	0
Total Analysis Volume [veh/h]	0	964	299	0	1042	939	281	0	494	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			3			5			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			5			3			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	8			18			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	145
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	99.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	4	0	0	0	0	0
Auxiliary Signal Groups			4,6			2,4						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	4	4	0	4	4	4	0	0	0	0	0
Maximum Green [s]	0	35	35	0	35	35	50	0	0	0	0	0
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	112	112	0	112	112	33	0	0	0	0	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	7	7	0	32	32	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	3.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		Yes	Yes		Yes	Yes	No					
Maximum Recall		No	No		No	No	No					
Pedestrian Recall		No	No		No	No	No					
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	L	R	
C, Cycle Length [s]	145	145	145	145	145	145	
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00	5.00	5.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00	3.00	3.00	
g_i, Effective Green Time [s]	109	140	109	140	27	27	
g / C, Green / Cycle	0.75	0.97	0.75	0.97	0.19	0.19	
(v / s)_i Volume / Saturation Flow Rate	0.19	0.19	0.20	0.61	0.08	0.18	
s, saturation flow rate [veh/h]	5094	1553	5094	1550	3459	2813	
c, Capacity [veh/h]	3825	1499	3825	1496	644	524	
d1, Uniform Delay [s]	5.54	0.11	5.65	0.21	52.19	58.16	
k, delay calibration	0.50	0.06	0.50	0.50	0.04	0.04	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.16	0.04	0.18	2.00	0.17	3.94	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.25	0.20	0.27	0.63	0.44	0.94	
d, Delay for Lane Group [s/veh]	5.70	0.14	5.82	2.21	52.36	62.10	
Lane Group LOS	A	A	A	A	D	E	
Critical Lane Group	No	No	No	Yes	No	Yes	
50th-Percentile Queue Length [veh/ln]	2.80	0.02	3.09	0.83	4.55	9.16	
50th-Percentile Queue Length [ft/ln]	70.03	0.40	77.16	20.81	113.67	229.10	
95th-Percentile Queue Length [veh/ln]	5.04	0.03	5.56	1.50	8.04	14.13	
95th-Percentile Queue Length [ft/ln]	126.05	0.72	138.89	37.46	201.09	353.22	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	5.70	0.14	0.00	5.82	2.21	52.36	0.00	62.10	0.00	0.00	0.00
Movement LOS		A	A		A	A	D		E			
d_A, Approach Delay [s/veh]	4.38			4.11			58.57			0.00		
Approach LOS	A			A			E			A		
d_I, Intersection Delay [s/veh]	14.70											
Intersection LOS	B											
Intersection V/C	0.692											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	64.72	64.72
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.714	1.739
Crosswalk LOS	F	F	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1488	1488	386	0
d_b, Bicycle Delay [s]	4.77	4.79	47.20	72.50
l_b,int, Bicycle LOS Score for Intersection	2.254	2.649	1.560	4.132
Bicycle LOS	B	B	A	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Willow Rd/Bay Rd

Control Type:	Signalized	Delay (sec / veh):	23.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.680

Intersection Setup

Name	Willow Rd		Willow Rd			
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	25.00	100.00	240.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Willow Rd		Willow Rd			
Base Volume Input [veh/h]	17	796	1053	299	315	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	796	1053	299	315	45
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	237	313	89	94	13
Total Analysis Volume [veh/h]	20	948	1254	356	375	54
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		4		2	
v_ci, Inbound Pedestrian Volume crossing mi	0		2		4	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	9		19		6	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	145
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	50.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	5	2	6	0	4	0
Auxiliary Signal Groups						
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	9	10	8	0	10	0
Maximum Green [s]	16	36	36	0	38	0
Amber [s]	3.0	4.5	4.5	0.0	3.2	0.0
All red [s]	0.5	1.0	1.0	0.0	1.0	0.0
Split [s]	20	90	70	0	55	0
Vehicle Extension [s]	3.0	5.0	3.0	0.0	3.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	31	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	1.5	3.5	3.5	0.0	2.2	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	Yes	Yes		No	
Pedestrian Recall	No	No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	145	145	145	145	145	145
L, Total Lost Time per Cycle [s]	3.50	5.50	5.50	5.50	4.20	4.20
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.50	3.50	3.50	3.50	2.20	2.20
g_i, Effective Green Time [s]	5	99	91	91	36	36
g / C, Green / Cycle	0.03	0.68	0.63	0.63	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.01	0.30	0.39	0.26	0.23	0.04
s, saturation flow rate [veh/h]	1603	3204	3204	1379	1603	1406
c, Capacity [veh/h]	55	2192	2004	863	399	350
d1, Uniform Delay [s]	68.36	10.26	16.69	13.52	53.34	42.46
k, delay calibration	0.11	0.50	0.50	0.50	0.22	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.93	0.62	1.49	1.46	18.32	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.36	0.43	0.63	0.41	0.94	0.15
d, Delay for Lane Group [s/veh]	72.30	10.88	18.17	14.98	71.66	42.66
Lane Group LOS	E	B	B	B	E	D
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.78	6.66	12.98	6.13	15.41	1.55
50th-Percentile Queue Length [ft/ln]	19.62	166.59	324.55	153.29	385.32	38.85
95th-Percentile Queue Length [veh/ln]	1.41	10.90	18.89	10.19	21.85	2.80
95th-Percentile Queue Length [ft/ln]	35.31	272.42	472.28	254.82	546.28	69.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	72.30	10.88	18.17	14.98	71.66	42.66
Movement LOS	E	B	B	B	E	D
d_A, Approach Delay [s/veh]	12.15		17.47		68.01	
Approach LOS	B		B		E	
d_I, Intersection Delay [s/veh]	22.97					
Intersection LOS	C					
Intersection V/C	0.680					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	681.18
d_p, Pedestrian Delay [s]	0.00	0.00	61.92
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.225
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1166	890	701
d_b, Bicycle Delay [s]	12.68	22.56	30.69
l_b,int, Bicycle LOS Score for Intersection	2.358	2.888	1.560
Bicycle LOS	B	C	A

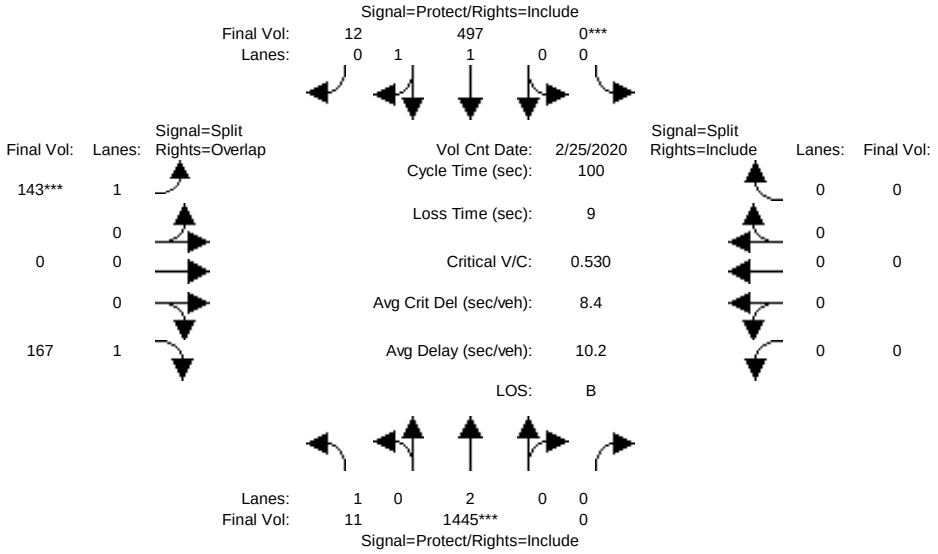
Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Intersection #2: University Avenue/O'Brien Drive



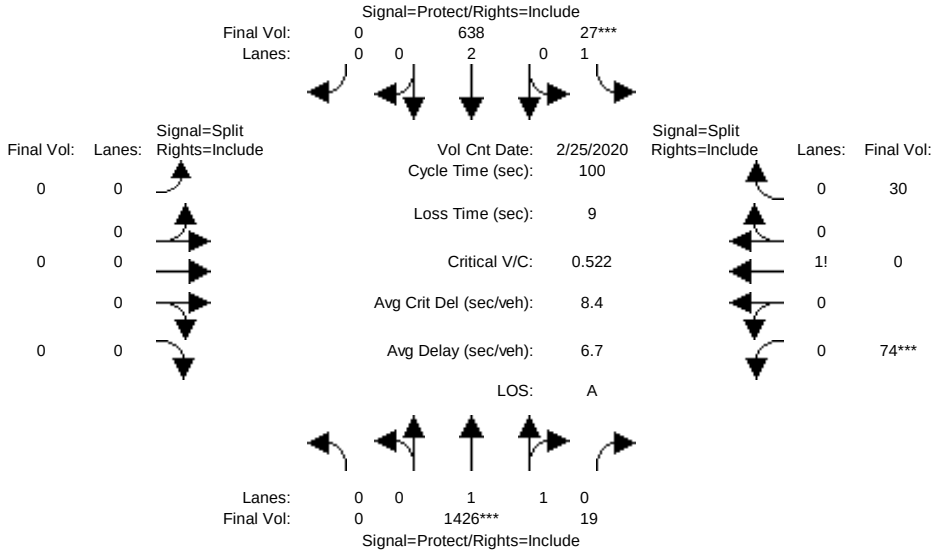
Street Name:	University Avenue						O'Brien Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	10	10	0	8	8	6	6	6	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	9	1355	0	0	463	11	134	0	156	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	1355	0	0	463	11	134	0	156	0	0	0
Added Vol:	1	3	0	0	4	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	1358	0	0	467	11	134	0	157	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	11	1445	0	0	497	12	143	0	167	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	1445	0	0	497	12	143	0	167	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	1445	0	0	497	12	143	0	167	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.95	0.92	1.00	0.82	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.95	0.05	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3516	83	1745	0	1562	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.40	0.00	0.00	0.14	0.14	0.08	0.00	0.11	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.17	0.76	0.00	0.00	0.59	0.59	0.15	0.00	0.32	0.00	0.00	0.00
Volume/Cap:	0.04	0.53	0.00	0.00	0.24	0.24	0.53	0.00	0.33	0.00	0.00	0.00
Uniform Del:	34.9	5.0	0.0	0.0	9.8	9.8	38.9	0.0	25.8	0.0	0.0	0.0
IncremntDel:	0.0	0.2	0.0	0.0	0.1	0.1	2.0	0.0	0.4	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	35.0	5.2	0.0	0.0	9.9	9.9	40.9	0.0	26.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.0	5.2	0.0	0.0	9.9	9.9	40.9	0.0	26.2	0.0	0.0	0.0
LOS by Move:	C	A	A	A	A	A	D	A	C	A	A	A
HCM2kAvgQ:	6	236	0	0	95	95	118	0	101	0	0	0

Note: Queue reported is the distance per lane in feet.

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Intersection #3: University Avenue/Notre Dame Avenue

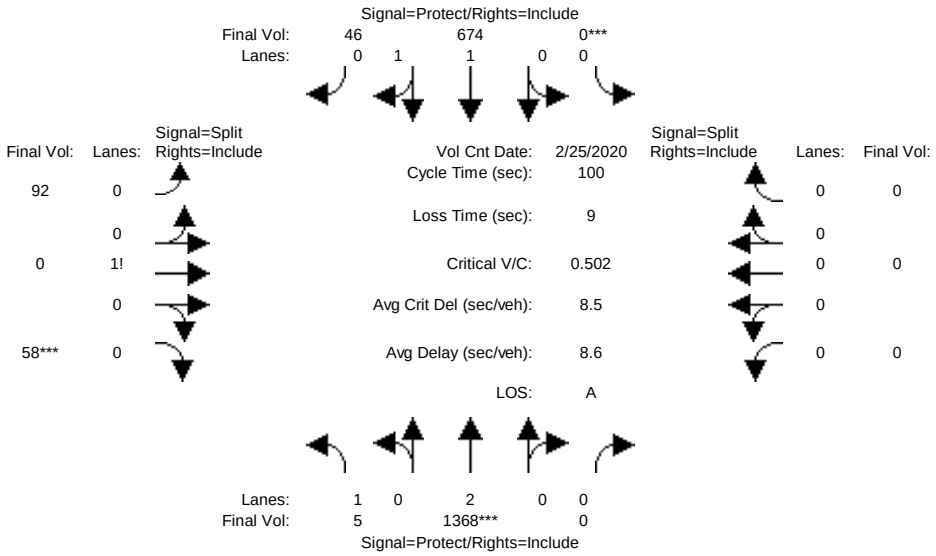


Street Name:	University Avenue						Notre Dame Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	8	8	4	8	0	0	0	0	4	4	4
Y+R:	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	0	1336	17	25	594	0	0	0	0	69	0	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1336	17	25	594	0	0	0	0	69	0	28
Added Vol:	0	4	1	0	6	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1340	18	25	600	0	0	0	0	70	0	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	1426	19	27	638	0	0	0	0	74	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1426	19	27	638	0	0	0	0	74	0	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1426	19	27	638	0	0	0	0	74	0	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.93	1.00	0.93
Lanes:	0.00	1.97	0.03	1.00	2.00	0.00	0.00	0.00	0.00	0.71	0.00	0.29
Final Sat.:	0	3555	48	1805	3610	0	0	0	0	1260	0	504
Capacity Analysis Module:												
Vol/Sat:	0.00	0.40	0.40	0.01	0.18	0.00	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.76	0.76	0.04	0.80	0.00	0.00	0.00	0.00	0.11	0.00	0.11
Volume/Cap:	0.00	0.53	0.53	0.37	0.22	0.00	0.00	0.00	0.00	0.53	0.00	0.53
Uniform Del:	0.0	4.9	4.9	46.8	2.5	0.0	0.0	0.0	0.0	41.9	0.0	41.9
IncremntDel:	0.0	0.2	0.2	3.2	0.0	0.0	0.0	0.0	0.0	2.7	0.0	2.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	5.1	5.1	49.9	2.5	0.0	0.0	0.0	0.0	44.6	0.0	44.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	5.1	5.1	49.9	2.5	0.0	0.0	0.0	0.0	44.6	0.0	44.6
LOS by Move:	A	A	A	D	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	235	234	20	64	0	0	0	0	94	0	94

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Intersection #4: University Avenue/Kavanaugh Drive

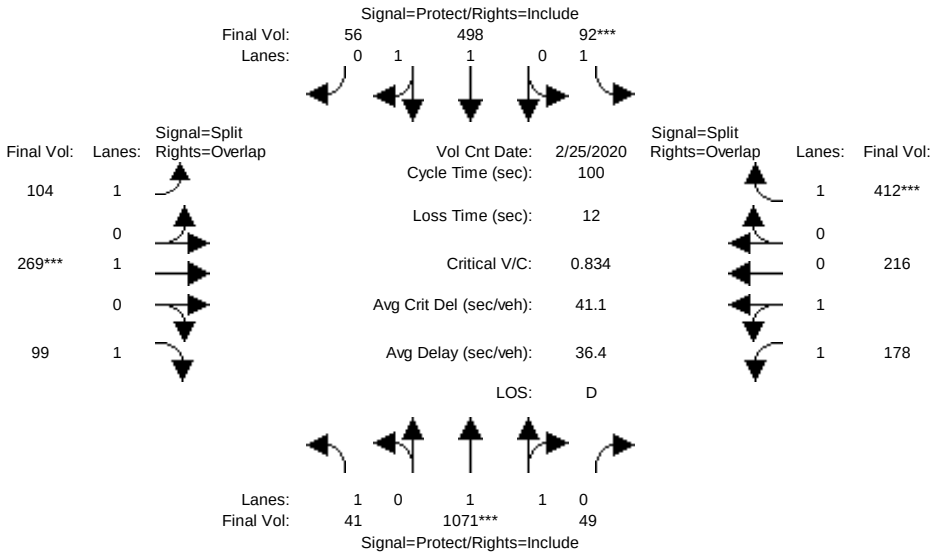


Street Name:	University Avenue						Kavanaugh Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	0	0	8	8	4	0	4	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	3.5	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	4	1267	0	0	620	43	86	0	53	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	1267	0	0	620	43	86	0	53	0	0	0
Added Vol:	1	5	0	0	7	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	1272	0	0	627	43	86	0	54	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	5	1368	0	0	674	46	92	0	58	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	1368	0	0	674	46	92	0	58	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	1368	0	0	674	46	92	0	58	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.94	0.93	1.01	1.00	1.01	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.87	0.13	0.61	0.00	0.39	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3343	229	1180	0	741	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.38	0.00	0.00	0.20	0.20	0.08	0.00	0.08	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.12	0.75	0.00	0.00	0.63	0.63	0.16	0.00	0.16	0.00	0.00	0.00
Volume/Cap:	0.02	0.50	0.00	0.00	0.32	0.32	0.50	0.00	0.50	0.00	0.00	0.00
Uniform Del:	38.4	4.9	0.0	0.0	8.6	8.6	38.6	0.0	38.6	0.0	0.0	0.0
IncremntDel:	0.0	0.1	0.0	0.0	0.1	0.1	1.4	0.0	1.4	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	38.5	5.0	0.0	0.0	8.7	8.7	40.0	0.0	40.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.5	5.0	0.0	0.0	8.7	8.7	40.0	0.0	40.0	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	4	223	0	0	132	131	120	0	120	0	0	0

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Intersection #5: University Avenue/Bay Road

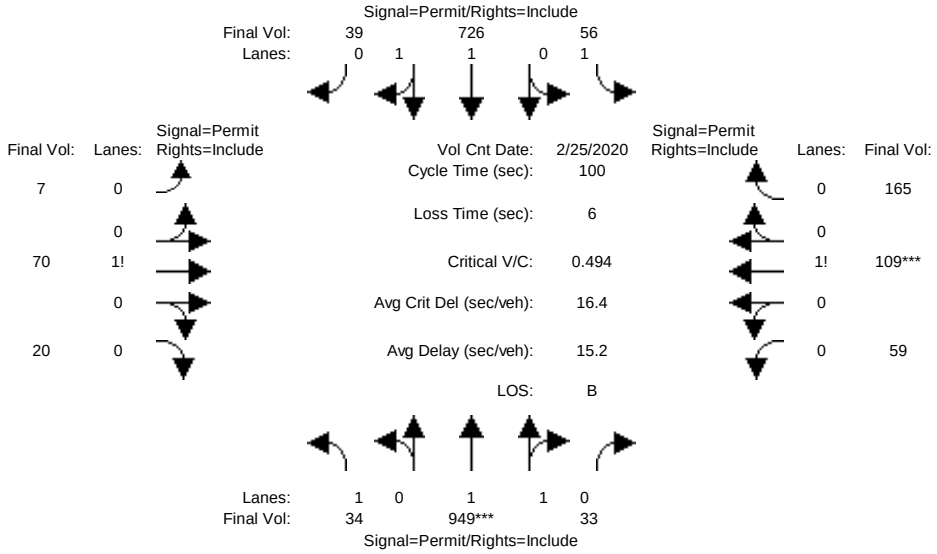


Street Name:	University Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	35	969	41	84	445	51	95	245	87	157	197	375
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	969	41	84	445	51	95	245	87	157	197	375
Added Vol:	2	6	4	0	8	0	0	0	3	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	975	45	84	453	51	95	245	90	162	197	375
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	41	1071	49	92	498	56	104	269	99	178	216	412
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	1071	49	92	498	56	104	269	99	178	216	412
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	1071	49	92	498	56	104	269	99	178	216	412
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.94	0.93	0.95	1.00	0.76	0.98	0.98	0.78
Lanes:	1.00	1.91	0.09	1.00	1.80	0.20	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1805	3426	158	1805	3192	359	1805	1900	1451	1858	1858	1474
Capacity Analysis Module:												
Vol/Sat:	0.02	0.31	0.31	0.05	0.16	0.16	0.06	0.14	0.07	0.10	0.12	0.28
Crit Moves:		****		****				****				****
Green/Cycle:	0.09	0.37	0.37	0.06	0.35	0.35	0.17	0.17	0.26	0.27	0.27	0.34
Volume/Cap:	0.25	0.83	0.83	0.83	0.45	0.45	0.34	0.83	0.26	0.35	0.43	0.83
Uniform Del:	42.4	28.4	28.4	46.4	25.2	25.2	36.6	40.1	29.5	29.2	29.8	30.7
IncremntDel:	0.8	4.7	4.7	39.4	0.3	0.3	0.7	16.8	0.4	0.2	0.3	11.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	43.3	33.1	33.1	85.8	25.5	25.5	37.2	57.0	29.8	29.3	30.2	42.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.3	33.1	33.1	85.8	25.5	25.5	37.2	57.0	29.8	29.3	30.2	42.3
LOS by Move:	D	C	C	F	C	C	D	E	C	C	C	D
HCM2kAvgQ:	28	429	426	124	177	175	77	265	63	113	142	357

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Intersection #6: University Avenue/Runnymede Street

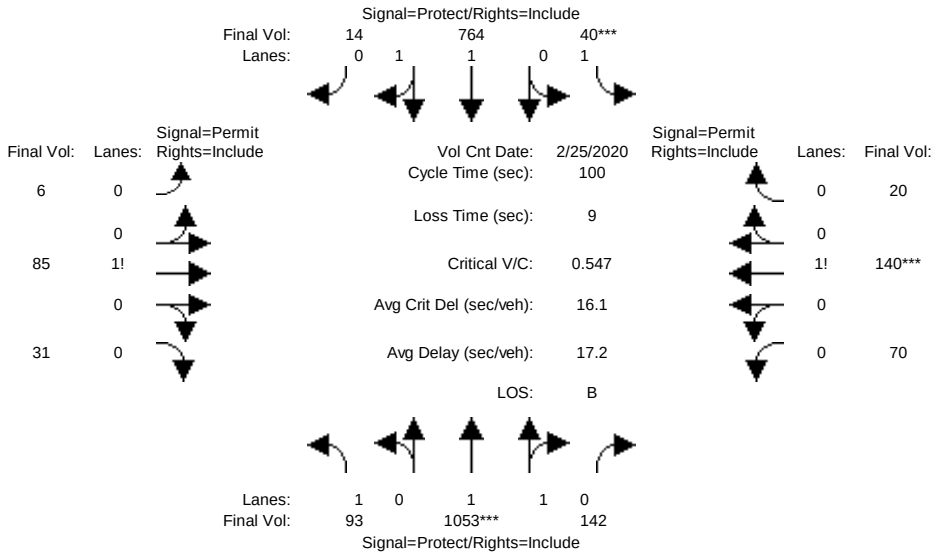


Street Name:	University Avenue						Runnymede Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	8	8	8	8	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	29	823	28	49	623	34	6	62	17	51	96	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	823	28	49	623	34	6	62	17	51	96	145
Added Vol:	1	12	1	0	16	0	0	0	1	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	835	29	49	639	34	6	62	18	52	96	145
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	34	949	33	56	726	39	7	70	20	59	109	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	949	33	56	726	39	7	70	20	59	109	165
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	949	33	56	726	39	7	70	20	59	109	165
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.29	0.95	0.94	0.21	0.94	0.94	0.95	1.08	0.95	0.87	1.04	0.87
Lanes:	1.00	1.93	0.07	1.00	1.90	0.10	0.08	0.69	0.23	0.19	0.29	0.52
Final Sat.:	554	3471	121	404	3400	181	138	1421	413	309	571	863
Capacity Analysis Module:												
Vol/Sat:	0.06	0.27	0.27	0.14	0.21	0.21	0.05	0.05	0.05	0.19	0.19	0.19
Crit Moves:		****									****	
Green/Cycle:	0.55	0.55	0.55	0.55	0.55	0.55	0.39	0.39	0.39	0.39	0.39	0.39
Volume/Cap:	0.11	0.49	0.49	0.25	0.39	0.39	0.13	0.13	0.13	0.49	0.49	0.49
Uniform Del:	10.6	13.7	13.7	11.6	12.7	12.7	19.8	19.8	19.8	23.3	23.3	23.3
IncremntDel:	0.2	0.2	0.2	0.6	0.1	0.1	0.1	0.1	0.1	0.6	0.6	0.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	10.8	13.9	13.9	12.2	12.8	12.8	19.9	19.9	19.9	23.8	23.8	23.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	13.9	13.9	12.2	12.8	12.8	19.9	19.9	19.9	23.8	23.8	23.8
LOS by Move:	B	B	B	B	B	B	B	B	B	C	C	C
HCM2kAvgQ:	12	236	235	22	169	169	44	49	44	190	223	189

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #7: University Avenue/Bell Street



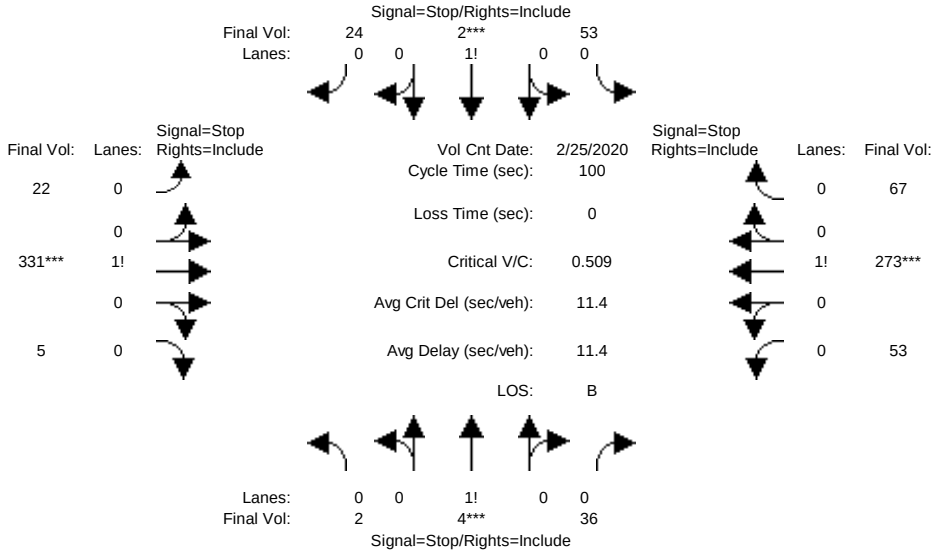
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	79	892	121	34	638	12	5	73	26	59	120	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	892	121	34	638	12	5	73	26	59	120	17
Added Vol:	1	14	1	0	19	0	0	0	1	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	906	122	34	657	12	5	73	27	60	120	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	93	1053	142	40	764	14	6	85	31	70	140	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	1053	142	40	764	14	6	85	31	70	140	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	93	1053	142	40	764	14	6	85	31	70	140	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.94	0.87	0.87	0.87
Lanes:	1.00	1.76	0.24	1.00	1.96	0.04	0.05	0.69	0.26	0.30	0.61	0.09
Final Sat.:	1805	3123	421	1805	3535	65	86	1255	464	503	1005	142
Capacity Analysis Module:												
Vol/Sat:	0.05	0.34	0.34	0.02	0.22	0.22	0.07	0.07	0.07	0.14	0.14	0.14
Crit Moves:		****		****							****	
Green/Cycle:	0.13	0.62	0.62	0.04	0.53	0.53	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.41	0.55	0.55	0.55	0.41	0.41	0.27	0.27	0.27	0.55	0.55	0.55
Uniform Del:	40.2	11.1	11.1	47.1	14.1	14.1	29.9	29.9	29.9	32.3	32.3	32.3
IncremntDel:	1.2	0.3	0.3	8.5	0.1	0.1	0.3	0.3	0.3	1.5	1.5	1.5
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	41.4	11.4	11.4	55.7	14.2	14.2	30.2	30.2	30.2	33.9	33.9	33.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.4	11.4	11.4	55.7	14.2	14.2	30.2	30.2	30.2	33.9	33.9	33.9
LOS by Move:	D	B	B	E	B	B	C	C	C	C	C	C
HCM2kAvgQ:	76	283	282	31	182	182	77	77	76	166	167	166

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing Plus Project PM

Intersection #14: Bay Road/Newbridge Street/Ralmar Avenue



Street Name:	Bay Road/Ralmar Avenue						Bay Road/Newbridge Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 5:00PM												
Base Vol:	2	3	30	41	2	20	18	275	4	44	227	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	3	30	41	2	20	18	275	4	44	227	54
Added Vol:	0	0	0	3	0	0	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	3	30	44	2	20	18	275	4	44	227	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
PHF Volume:	2	4	36	53	2	24	22	331	5	53	273	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	4	36	53	2	24	22	331	5	53	273	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	4	36	53	2	24	22	331	5	53	273	67
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.08	0.86	0.67	0.03	0.30	0.06	0.93	0.01	0.13	0.70	0.17
Final Sat.:	35	52	520	388	18	176	46	699	10	104	537	133
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.07	0.14	0.14	0.14	0.47	0.47	0.47	0.51	0.51	0.51
Crit Moves:		****			****			****			****	
Delay/Veh:	8.5	8.5	8.5	9.3	9.3	9.3	11.6	11.6	11.6	12.0	12.0	12.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.5	8.5	8.5	9.3	9.3	9.3	11.6	11.6	11.6	12.0	12.0	12.0
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
ApproachDel:		8.5			9.3			11.6			12.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.5			9.3			11.6			12.0	
LOS by Appr:		A			A			B			B	
AllWayAvgQ:	1.4	1.4	1.4	3.1	3.1	3.1	20.7	20.7	20.7	23.8	23.8	23.8

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #14 Bay Road/Newbridge Street/Ralmar Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Initial Vol:	2	3	30	44	2	20	18	275	4	44	227	56

Major Street Volume: 624
Minor Approach Volume: 66
Minor Approach Volume Threshold: 345

SIGNAL WARRANT DISCLAIMER

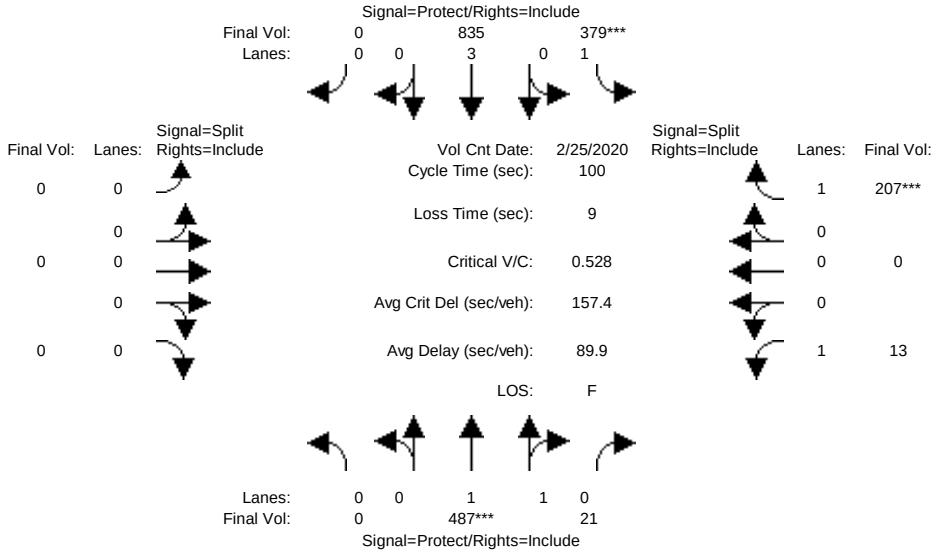
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing Plus Project PM

Intersection #17: Donohoe Street/E Bayshore Road

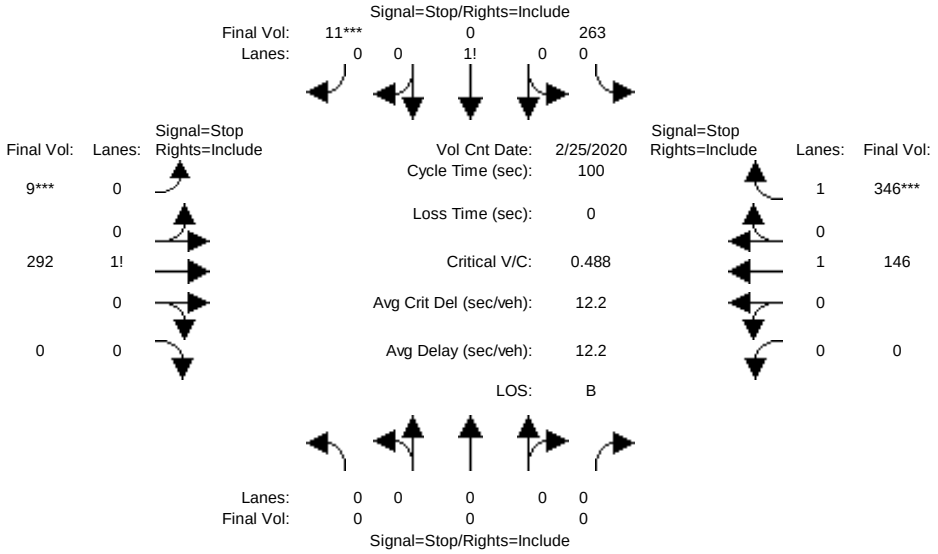


Street Name:	Donohoe Street/E Bayshore Road						Donohoe Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	71	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	0	460	20	359	791	0	0	0	0	12	0	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	460	20	359	791	0	0	0	0	12	0	196
Added Vol:	0	3	0	1	2	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	463	20	360	793	0	0	0	0	12	0	197
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	487	21	379	835	0	0	0	0	13	0	207
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	487	21	379	835	0	0	0	0	13	0	207
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	487	21	379	835	0	0	0	0	13	0	207
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.95	0.91	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.92	0.08	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3439	149	1805	5187	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.14	0.14	0.21	0.16	0.00	0.00	0.00	0.00	0.01	0.00	0.13
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.10	0.10	0.71	0.81	0.00	0.00	0.00	0.00	0.10	0.00	0.10
Volume/Cap:	0.00	1.42	1.42	0.30	0.20	0.00	0.00	0.00	0.00	0.07	0.00	1.28
Uniform Del:	0.0	45.0	45.0	5.3	2.2	0.0	0.0	0.0	0.0	40.8	0.0	45.0
IncremntDel:	0.0	204	203.5	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	166.5
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	249	248.5	5.5	2.2	0.0	0.0	0.0	0.0	41.0	0.0	211.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	249	248.5	5.5	2.2	0.0	0.0	0.0	0.0	41.0	0.0	211.5
LOS by Move:	A	F	F	A	A	A	A	A	A	D	A	F
HCM2kAvgQ:	0	499	496	107	54	0	0	0	0	10	0	362

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing Plus Project PM

Intersection #19: Woodland Avenue/Manhattan Avenue




```
Street Name:         Manhattan Avenue                Woodland Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM
Base Vol:       0    0     0   168    0    10     8  263     0     0  131   219
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0   168    0    10     8  263     0     0  131   219
Added Vol:      0    0     0    69    0     0     0    0     0     0    0    92
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0   237    0    10     8  263     0     0  131   311
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.90 0.90  0.90  0.90 0.90  0.90  0.90 0.90  0.90  0.90 0.90  0.90
PHF Volume:     0    0     0   263    0    11     9  292     0     0  146   346
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   263    0    11     9  292     0     0  146   346
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0    0     0   263    0    11     9  292     0     0  146   346
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.00 0.00  0.00  0.96 0.00  0.04  0.03 0.97  0.00  0.00 1.00  1.00
Final Sat.:     0    0     0   571    0    24    19  630     0     0  623   708
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.46 xxxx  0.46  0.46 0.46  xxxx  xxxx 0.23  0.49
Crit Moves:                                ****  ****                     ****
Delay/Veh:    0.0  0.0   0.0  13.1  0.0  13.1  12.7 12.7   0.0   0.0 10.0  12.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  13.1  0.0  13.1  12.7 12.7   0.0   0.0 10.0  12.0
LOS by Move:    *    *     *     B    *     B     B    B     *     *    B     B
ApproachDel:       xxxxxx           13.1            12.7            11.4
Delay Adj:          xxxxx           1.00            1.00            1.00
ApprAdjDel:        xxxxxx           13.1            12.7            11.4
LOS by Appr:            *              B               B               B
AllWayAvgQ:   0.0  0.0   0.0  18.2 18.2  18.2  19.4 19.4  19.4   0.0  7.2  21.6
Note: Queue reported is the distance per lane in feet.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #19 Woodland Avenue/Manhattan Avenue
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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0
Initial Vol:	0	0	0	237	0	10	8	263	0	0	131	311

Major Street Volume: 713
Minor Approach Volume: 247
Minor Approach Volume Threshold: 401

SIGNAL WARRANT DISCLAIMER

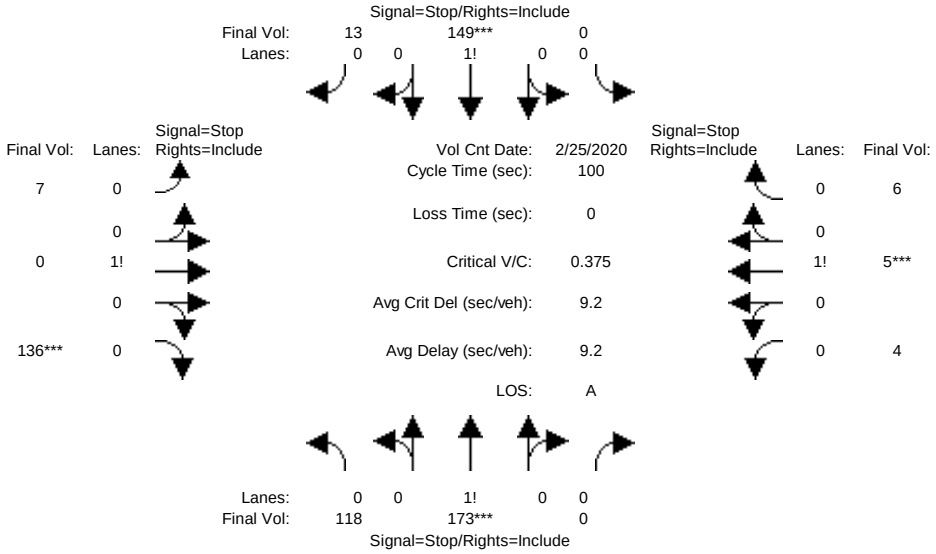
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing Plus Project PM

Intersection #20: O'Conner Street/Manhattan Avenue




```
Street Name:         Manhattan Avenue                 O'Conner Street
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM
Base Vol:      92   90     0     0   85    10     4    0   114     4    5     6
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   92   90     0     0   85    10     4    0   114     4    5     6
Added Vol:     19   73     0     0   55     2     3    0    14     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  111  163     0     0  140    12     7    0   128     4    5     6
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.94 0.94  0.94  0.94 0.94  0.94  0.94 0.94  0.94  0.94 0.94  0.94
PHF Volume:   118  173     0     0  149    13     7    0   136     4    5     6
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  118  173     0     0  149    13     7    0   136     4    5     6
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  118  173     0     0  149    13     7    0   136     4    5     6
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.41 0.59  0.00  0.00 0.92  0.08  0.05 0.00  0.95  0.27 0.33  0.40
Final Sat.:   315  462     0     0  706    60    40    0   724   178  222   266
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.38 0.38  xxxx  xxxx 0.21  0.21  0.19 xxxx  0.19  0.02 0.02  0.02
Crit Moves:       ****              ****                    ****       ****
Delay/Veh:   10.1 10.1   0.0   0.0  8.7   8.7   8.3  0.0   8.3   8.0  8.0   8.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  10.1 10.1   0.0   0.0  8.7   8.7   8.3  0.0   8.3   8.0  8.0   8.0
LOS by Move:    B    B     *     *    A     A     A     *     A     A    A     A
ApproachDel:       10.1             8.7             8.3             8.0
Delay Adj:         1.00             1.00            1.00            1.00
ApprAdjDel:        10.1             8.7             8.3             8.0
LOS by Appr:          B               A               A               A
AllWayAvgQ:  13.9 13.9  13.9   6.1  6.1   6.1   4.9  4.9   4.9   0.5  0.5   0.5
Note: Queue reported is the distance per lane in feet.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #20 O'Conner Street/Manhattan Avenue
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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 1	0	0	0	0 0	1 0	0 0	1! 0	0	0 0	1! 0	0
Initial Vol:	111	163	0	0	140	12	7	0	128	4	5	6

Major Street Volume: 426
Minor Approach Volume: 135
Minor Approach Volume Threshold: 447

SIGNAL WARRANT DISCLAIMER

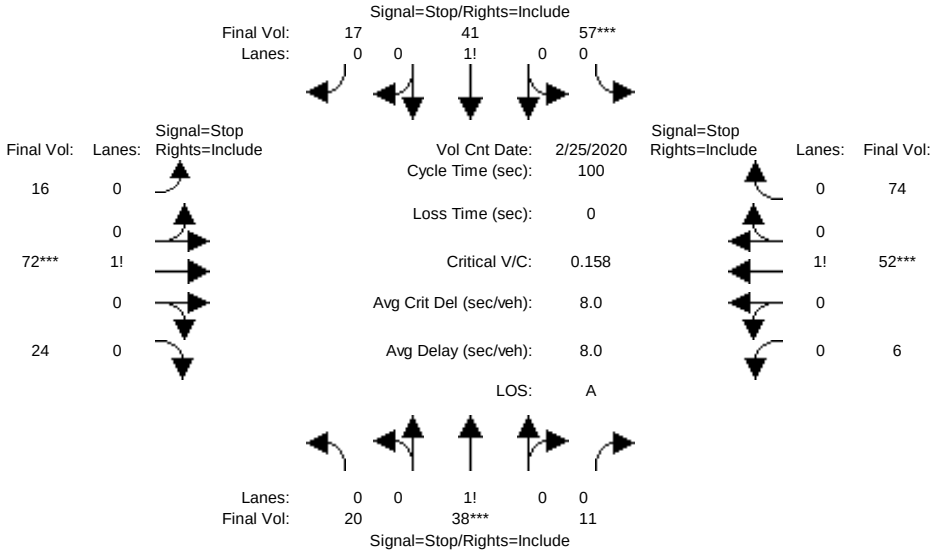
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing Plus Project PM

Intersection #21: O'Conner Street/Euclid Avenue



Street Name:	Euclid Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	19	36	10	40	39	15	14	65	23	6	47	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	36	10	40	39	15	14	65	23	6	47	51
Added Vol:	0	0	0	14	0	1	1	3	0	0	2	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	36	10	54	39	16	15	68	23	6	49	70
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	20	38	11	57	41	17	16	72	24	6	52	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	38	11	57	41	17	16	72	24	6	52	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	38	11	57	41	17	16	72	24	6	52	74
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.29	0.56	0.15	0.49	0.36	0.15	0.14	0.64	0.22	0.05	0.39	0.56
Final Sat.:	221	419	116	377	272	112	112	509	172	40	329	470
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.15	0.15	0.15	0.14	0.14	0.14	0.16	0.16	0.16
Crit Moves:		****		****				****			****	
Delay/Veh:	7.9	7.9	7.9	8.3	8.3	8.3	8.0	8.0	8.0	7.8	7.8	7.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.9	7.9	7.9	8.3	8.3	8.3	8.0	8.0	8.0	7.8	7.8	7.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		7.9			8.3			8.0			7.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		7.9			8.3			8.0			7.8	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	2.2	2.2	2.2	4.0	4.0	4.0	3.8	3.8	3.8	4.3	4.3	4.3

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #21 O'Conner Street/Euclid Avenue

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Initial Vol:	19	36	10	54	39	16	15	68	23	6	49	70

Major Street Volume: 231
Minor Approach Volume: 109
Minor Approach Volume Threshold: 610

SIGNAL WARRANT DISCLAIMER

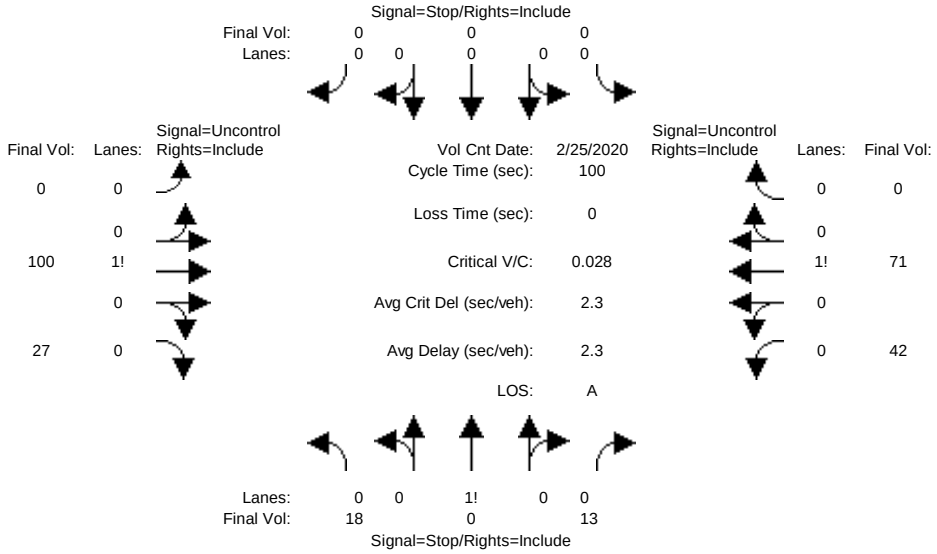
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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing Plus Project PM

Intersection #22: W Bayshore Road/Euclid Avenue



Street Name:	Euclid Avenue						W Bayshore Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 25 Feb 2020 << 4:30PM												
Base Vol:	13	0	12	0	0	0	0	76	20	40	53	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	0	12	0	0	0	0	76	20	40	53	0
Added Vol:	4	0	0	0	0	0	0	20	6	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	0	12	0	0	0	0	96	26	40	68	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	18	0	13	0	0	0	0	100	27	42	71	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	18	0	13	0	0	0	0	100	27	42	71	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	270	268	114	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	127	xxxx	xxxxx
Potent Cap.:	724	642	945	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1472	xxxx	xxxxx
Move Cap.:	707	623	945	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1472	xxxx	xxxxx
Volume/Cap:	0.03	0.00	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	789	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	9.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:		9.7		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		A		*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

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Intersection #22 W Bayshore Road/Euclid Avenue

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	17	0	12	0	0	0	0	96	26	40	68	0
ApproachDel:	9.7			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=29]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=259]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #22 W Bayshore Road/Euclid Avenue

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	17	0	12	0	0	0	0	96	26	40	68	0

Major Street Volume: 230
Minor Approach Volume: 29
Minor Approach Volume Threshold: 611

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.8	0.1	0.2
Total Delay (hr)	0.1	1.3	0.4	2.9	4.9	1.8	19.2	4.7	2.1	0.9	5.6	1.1
Total Del/Veh (s)	54.7	47.3	9.4	29.9	27.8	12.2	270.9	39.1	14.3	58.3	35.1	30.5
Avg Speed (mph)	4	4	12	6	6	10	1	5	9	13	16	16
Vehicles Entered	8	97	149	346	622	523	240	433	521	58	563	124

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	45.1
Total Del/Veh (s)	43.3
Avg Speed (mph)	8
Vehicles Entered	3684

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.4	0.9	0.2	0.0	0.0	0.0	1.4
Denied Del/Veh (s)	4.4	4.0	0.8	0.2	0.0	0.0	1.4
Total Delay (hr)	36.7	151.1	20.2	0.3	5.1	1.6	214.9
Total Del/Veh (s)	451.3	690.2	78.1	5.0	37.5	6.3	216.5
Avg Speed (mph)	5	4	3	14	10	20	5
Vehicles Entered	280	751	918	181	480	882	3492

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.3	0.2	3.8	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.5	1.1	2.0	1.2	1.1	3.7	16.9	22.1	14.0	0.0	0.0	0.0
Total Delay (hr)	13.5	2.0	1.1	0.2	1.0	3.4	4.8	91.3	1.3	3.3	2.1	0.7
Total Del/Veh (s)	121.7	110.9	96.0	57.8	67.5	41.8	469.7	541.7	587.6	60.9	14.8	6.7
Avg Speed (mph)	1	1	1	6	5	7	4	4	4	4	11	14
Vehicles Entered	390	63	40	9	53	290	35	580	8	193	502	395

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	4.5
Denied Del/Veh (s)	6.2
Total Delay (hr)	124.7
Total Del/Veh (s)	171.8
Avg Speed (mph)	4
Vehicles Entered	2558

15: NB US 101 On-ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.7	0.3	1.1
Total Del/Veh (s)	0.4	0.3	7.0	1.7	2.9
Avg Speed (mph)	24	21	15	20	19
Vehicles Entered	251	84	384	611	1330

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.4	0.0	0.0	0.7
Denied Del/Veh (s)	0.0	0.1	0.1	1.2	1.0	2.4	0.1	0.1	0.9
Total Delay (hr)	3.1	4.2	0.0	7.8	0.2	6.6	0.1	0.8	22.9
Total Del/Veh (s)	16.7	20.2	11.4	38.9	36.3	55.6	53.3	57.2	33.2
Avg Speed (mph)	8	19	21	11	12	11	3	2	14
Vehicles Entered	675	732	15	702	23	606	6	51	2810

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.1	2.3	0.0	0.0	27.4	1.9	31.7
Denied Del/Veh (s)	17.4	17.0	0.0	0.0	583.8	628.8	97.7
Total Delay (hr)	0.8	28.8	1.5	0.1	31.8	2.0	64.9
Total Del/Veh (s)	204.3	207.4	12.5	4.0	1397.0	1414.7	214.8
Avg Speed (mph)	4	4	7	10	0	0	2
Vehicles Entered	14	486	413	66	81	5	1065

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.4	0.1	0.0	0.5
Denied Del/Veh (s)	0.3	1.2	1.6	0.0	0.7
Total Delay (hr)	0.4	49.9	7.0	0.5	57.7
Total Del/Veh (s)	4.4	145.1	133.2	1.8	74.2
Avg Speed (mph)	14	4	4	19	5
Vehicles Entered	296	1193	182	1075	2746

Total Network Performance

Denied Delay (hr)	38.9
Denied Del/Veh (s)	22.1
Total Delay (hr)	538.7
Total Del/Veh (s)	291.5
Avg Speed (mph)	8
Vehicles Entered	6195

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	40	171	116	224	300	291	267	225	250	353	338	175
Average Queue (ft)	8	74	50	132	183	186	124	222	248	322	230	147
95th Queue (ft)	31	139	90	227	280	273	230	233	252	348	371	219
Link Distance (ft)		337	337		266	266	266			282	282	
Upstream Blk Time (%)					3	3	0			75	7	
Queuing Penalty (veh)					16	13	1			636	57	
Storage Bay Dist (ft)	200			175				200	200			125
Storage Blk Time (%)		0		2	13			51	85	4	17	10
Queuing Penalty (veh)		0		11	23			152	251	15	127	30

Intersection: 8: University Avenue & Donohoe Street

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	143	294	321
Average Queue (ft)	45	180	198
95th Queue (ft)	101	272	295
Link Distance (ft)		2340	2340
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)	0	1	
Queuing Penalty (veh)	0	1	

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	4969	4953	250	394	392	336	71	245	260	281	192
Average Queue (ft)	2454	2630	247	350	353	55	23	133	149	83	96
95th Queue (ft)	5143	5124	266	424	419	199	59	222	229	190	168
Link Distance (ft)	5324	5324		355	355	355				939	939
Upstream Blk Time (%)	4	4		18	24	1					
Queuing Penalty (veh)	0	0		85	112	5					
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		82	85					0	1	0	
Queuing Penalty (veh)		314	445					1	5	0	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	222	224	212	459	75	224	4538	290	274	255	213	183
Average Queue (ft)	183	180	174	199	71	70	2268	269	138	102	98	76
95th Queue (ft)	213	211	210	406	83	224	4972	343	224	190	174	142
Link Distance (ft)	165	165	165	645			4497		355	355	355	355
Upstream Blk Time (%)	71	68	63	0			15		0	0		
Queuing Penalty (veh)	156	149	138	0			0		0	0		
Storage Bay Dist (ft)					25	175		240				
Storage Blk Time (%)				41	62		73	70				
Queuing Penalty (veh)				119	39		251	237				

Intersection: 15: NB US 101 On-ramp & Donohoe Street

Movement	EB	EB	WB	WB
Directions Served	T	R	L	T
Maximum Queue (ft)	13	24	207	6
Average Queue (ft)	1	2	77	0
95th Queue (ft)	7	14	153	6
Link Distance (ft)	429	429	337	337
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	T	T	T	T	TR	L	L	T	R	L	R
Maximum Queue (ft)	208	228	246	241	211	348	482	632	250	38	125
Average Queue (ft)	106	120	128	112	79	211	240	209	213	6	45
95th Queue (ft)	175	196	215	195	159	310	388	594	296	27	96
Link Distance (ft)	266	266	2722	2722			1046	1046		230	230
Upstream Blk Time (%)	0	0						0			
Queuing Penalty (veh)	0	0						0			
Storage Bay Dist (ft)					245	475			200		
Storage Blk Time (%)				0	0			0	28		
Queuing Penalty (veh)				0	0			0	6		

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	250	1369	167	200	125	538	541
Average Queue (ft)	218	712	70	102	35	395	387
95th Queue (ft)	301	1615	154	177	110	705	701
Link Distance (ft)		1588	165	165		521	521
Upstream Blk Time (%)		13	0	2		57	58
Queuing Penalty (veh)		0	0	6		0	0
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	34	56		15	0		
Queuing Penalty (veh)	84	145		5	0		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	137	992	976	16	67
Average Queue (ft)	50	928	932	1	13
95th Queue (ft)	107	1091	1080	17	47
Link Distance (ft)	314	939	939	282	282
Upstream Blk Time (%)		21	27		
Queuing Penalty (veh)		208	259		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 4104

8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.2	0.8
Total Delay (hr)	0.1	1.2	0.4	2.8	5.7	1.6	4.1	3.9	3.1	1.1	5.6	0.2
Total Del/Veh (s)	40.5	42.7	10.2	29.3	32.6	10.7	43.0	22.7	15.0	64.9	35.2	6.0
Avg Speed (mph)	5	5	11	6	6	10	4	7	8	12	16	22
Vehicles Entered	6	100	148	344	626	521	336	605	742	59	561	124

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	29.8
Total Del/Veh (s)	25.4
Avg Speed (mph)	10
Vehicles Entered	4172

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	3.9	9.0	6.5	0.4	5.3	1.7	26.8
Total Del/Veh (s)	45.8	41.2	19.6	5.8	37.9	7.2	24.7
Avg Speed (mph)	21	22	9	14	10	19	18
Vehicles Entered	298	756	1179	249	494	851	3827

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	3.8	0.9	3.6	0.6	0.5	0.6	0.0	0.0	0.0
Total Delay (hr)	7.4	0.8	0.4	0.2	0.7	1.2	0.6	7.2	0.1	2.6	2.9	1.1
Total Del/Veh (s)	51.0	33.6	23.9	64.3	44.3	14.1	63.7	40.4	37.4	45.8	19.1	9.4
Avg Speed (mph)	3	4	5	5	7	13	16	18	18	5	9	12
Vehicles Entered	517	82	56	10	55	292	34	611	6	206	534	409

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.6
Total Delay (hr)	25.1
Total Del/Veh (s)	31.5
Avg Speed (mph)	13
Vehicles Entered	2812

15: NB US 101 On-ramp/Private Dwy & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.1
Total Delay (hr)	0.6	0.2	5.8	0.3	6.9
Total Del/Veh (s)	8.4	7.8	49.4	1.5	17.1
Avg Speed (mph)	14	14	5	20	10
Vehicles Entered	252	81	415	677	1425

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.4	0.0	0.0	0.7
Denied Del/Veh (s)	0.0	0.1	0.1	1.3	1.0	2.6	0.1	0.2	0.9
Total Delay (hr)	8.2	7.9	0.1	3.1	0.1	2.6	0.1	1.0	23.0
Total Del/Veh (s)	32.4	37.4	26.0	16.0	14.2	15.1	54.3	63.8	26.9
Avg Speed (mph)	5	16	18	17	18	17	2	2	14
Vehicles Entered	904	734	14	693	21	604	5	56	3031

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.6	0.4	0.1	0.0	0.1	0.1	0.2
Total Delay (hr)	0.2	5.2	3.7	0.2	1.3	0.1	10.7
Total Del/Veh (s)	44.5	38.2	30.7	11.7	28.0	21.8	32.3
Avg Speed (mph)	12	13	4	7	8	9	10
Vehicles Entered	15	481	432	73	170	11	1182

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	4.8	0.9	0.6	6.6
Total Del/Veh (s)	4.5	10.3	12.0	1.9	7.2
Avg Speed (mph)	14	17	16	19	17
Vehicles Entered	286	1671	258	1065	3280

Total Network Performance

Denied Delay (hr)	1.4
Denied Del/Veh (s)	0.8
Total Delay (hr)	137.4
Total Del/Veh (s)	73.5
Avg Speed (mph)	17
Vehicles Entered	6313

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB
Directions Served	L	T	T	T	TR	L	LT	T	T	TR	R	L
Maximum Queue (ft)	30	99	83	19	114	225	290	256	212	172	168	219
Average Queue (ft)	4	44	20	1	40	149	187	119	101	93	90	115
95th Queue (ft)	18	84	61	10	83	243	280	211	172	150	149	199
Link Distance (ft)		314	314	314	314		261	261	261	261	261	
Upstream Blk Time (%)							2	0	0	0		
Queuing Penalty (veh)							6	0	0	0		
Storage Bay Dist (ft)	200					175						200
Storage Blk Time (%)						3	12					0
Queuing Penalty (veh)						9	20					1

Intersection: 8: University Avenue & Donohoe Street

Movement	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	T	R	L	T	T	R
Maximum Queue (ft)	245	294	295	175	136	280	280	121
Average Queue (ft)	143	153	193	155	57	162	161	41
95th Queue (ft)	225	267	315	208	116	238	240	95
Link Distance (ft)		258	258			2316	2316	
Upstream Blk Time (%)	0	1	4					
Queuing Penalty (veh)	0	8	35					
Storage Bay Dist (ft)	200			125	250			250
Storage Blk Time (%)	1	2	8	28		0	1	
Queuing Penalty (veh)	4	8	62	82		0	1	

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	300	393	250	336	362	184	73	240	251	266	209
Average Queue (ft)	139	216	200	258	281	44	35	148	163	82	91
95th Queue (ft)	233	334	273	357	372	124	67	229	238	198	166
Link Distance (ft)	5324	5324		336	336	336				939	939
Upstream Blk Time (%)				0	1	0					
Queuing Penalty (veh)				1	6	0					
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		13	11					1	1	0	
Queuing Penalty (veh)		48	58					2	5	0	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	L	TR	L	T	R	L	T	TR	L	T
Maximum Queue (ft)	200	199	178	160	37	224	100	149	305	276	261	235
Average Queue (ft)	155	159	96	81	8	78	82	32	151	174	142	123
95th Queue (ft)	207	202	166	142	27	180	113	95	250	254	230	208
Link Distance (ft)	161	161	161	161		645			4490		336	336
Upstream Blk Time (%)	18	17	2	0							0	
Queuing Penalty (veh)	30	28	3	1							0	
Storage Bay Dist (ft)					50		50	175		240		
Storage Blk Time (%)					0	16	29		4	1		
Queuing Penalty (veh)					0	47	18		15	5		

Intersection: 10: University Avenue & Woodland Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	233	204
Average Queue (ft)	117	88
95th Queue (ft)	202	167
Link Distance (ft)	336	336
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: NB US 101 On-ramp/Private Dwy & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	LT	T	TR	L	T	T	T
Maximum Queue (ft)	89	22	160	357	247	247	23
Average Queue (ft)	29	2	68	285	38	21	2
95th Queue (ft)	68	13	134	375	160	127	31
Link Distance (ft)	424	424	424	314	314	314	314
Upstream Blk Time (%)				10	0	0	
Queuing Penalty (veh)				23	0	0	
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	T	T	TR	L	L	T	R
Maximum Queue (ft)	85	202	261	305	238	205	254	249	236	339	404	250
Average Queue (ft)	33	127	209	219	140	97	109	143	115	148	49	165
95th Queue (ft)	71	192	286	300	213	172	213	226	205	269	234	264
Link Distance (ft)	261	261	261	261	2724	2724	2724			1022	1022	
Upstream Blk Time (%)			0	1						0		
Queuing Penalty (veh)			1	3						0		
Storage Bay Dist (ft)								245	475			200
Storage Blk Time (%)							0	0			0	6
Queuing Penalty (veh)							1	1			0	1

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	SB	SB
Directions Served	L	R
Maximum Queue (ft)	29	126
Average Queue (ft)	4	52
95th Queue (ft)	19	116
Link Distance (ft)	204	204
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	247	326	164	207	125	180	158
Average Queue (ft)	136	167	124	154	60	49	43
95th Queue (ft)	220	261	185	215	148	136	119
Link Distance (ft)		1588	161	161		520	520
Upstream Blk Time (%)			1	10			
Queuing Penalty (veh)			3	25			
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	1	4		40	0		
Queuing Penalty (veh)	3	10		14	0		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	132	457	499	53	71
Average Queue (ft)	54	66	93	2	11
95th Queue (ft)	110	330	365	24	43
Link Distance (ft)	314	939	939	258	258
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 589

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	University Ave/Bayfront Expy	Signalized	HCM 6th Edition	NB Left	0.969	37.8	D
11	Willow Rd/NB US-101 Ramps	Signalized	HCM 6th Edition	SB Thru	0.952	30.8	C
12	Willow Rd/SB US-101 Ramps	Signalized	HCM 6th Edition	EB Left	0.632	18.0	B
13	Willow Rd/Bay Rd	Signalized	HCM 6th Edition	NB Left	0.924	33.8	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: University Ave/Bayfront Expy

Control Type:	Signalized	Delay (sec / veh):	37.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.969

Intersection Setup

Name	University Ave		Bayfront Expy		Bayfront Expy	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	2	0	1	2	0
Entry Pocket Length [ft]	175.00	1260.00	100.00	430.00	830.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	University Ave		Bayfront Expy		Bayfront Expy	
Base Volume Input [veh/h]	192	545	1211	166	1906	4469
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	192	545	1211	166	1906	4469
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	48	136	303	42	477	1117
Total Analysis Volume [veh/h]	192	545	1211	166	1906	4469
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1		0		1	
v_di, Inbound Pedestrian Volume crossing m	1		0		1	
v_co, Outbound Pedestrian Volume crossing	1		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		9		16	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	240
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	113.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Split	Overlap	Permissive	Permissive	Protected	Permissive
Signal Group	4	4	6	0	5	2
Auxiliary Signal Groups		4,5				
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	12	12	10	0	11	10
Maximum Green [s]	15	15	60	0	100	135
Amber [s]	3.0	3.0	5.0	0.0	3.0	5.4
All red [s]	1.0	1.0	1.0	0.0	0.5	0.5
Split [s]	47	47	65	0	128	193
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	5	5	5	0	0	10
Pedestrian Clearance [s]	29	29	35	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	4.0	0.0	1.5	3.9
Minimum Recall	No	No	Yes		No	Yes
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	240	240	240	240	240	240
L, Total Lost Time per Cycle [s]	4.00	3.50	6.00	6.00	3.50	5.90
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	0.00	4.00	4.00	1.50	3.90
g_i, Effective Green Time [s]	15	172	59	59	153	215
g / C, Green / Cycle	0.06	0.72	0.24	0.24	0.64	0.90
(v / s)_i Volume / Saturation Flow Rate	0.06	0.13	0.24	0.11	0.55	0.88
s, saturation flow rate [veh/h]	3459	4220	5094	1557	3459	5094
c, Capacity [veh/h]	219	3024	1242	380	2202	4561
d1, Uniform Delay [s]	111.43	11.06	89.99	76.59	35.28	10.69
k, delay calibration	0.04	0.04	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.35	0.01	3.47	0.29	4.87	9.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.18	0.98	0.44	0.87	0.98
d, Delay for Lane Group [s/veh]	115.78	11.07	93.46	76.89	40.15	20.10
Lane Group LOS	F	B	F	E	D	C
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.16	3.30	25.08	8.67	44.88	42.59
50th-Percentile Queue Length [ft/ln]	154.04	82.41	626.94	216.72	1122.05	1064.81
95th-Percentile Queue Length [veh/ln]	10.23	5.93	33.29	13.50	55.87	53.30
95th-Percentile Queue Length [ft/ln]	255.81	148.33	832.26	337.44	1396.72	1332.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	115.78	11.07	93.46	76.89	40.15	20.10
Movement LOS	F	B	F	E	D	C
d_A, Approach Delay [s/veh]	38.35		91.46		26.09	
Approach LOS	D		F		C	
d_I, Intersection Delay [s/veh]	37.76					
Intersection LOS	D					
Intersection V/C	0.969					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1609.34	0.00	0.00
d_p, Pedestrian Delay [s]	111.17	0.00	111.17
I_p,int, Pedestrian LOS Score for Intersection	3.097	0.000	4.423
Crosswalk LOS	C	F	E
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	358	492	1559
d_b, Bicycle Delay [s]	80.85	68.56	5.88
I_b,int, Bicycle LOS Score for Intersection	1.560	2.317	5.066
Bicycle LOS	A	B	F

Sequence

Ring 1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Willow Rd/NB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	30.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.952

Intersection Setup

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	405.00	100.00	100.00	100.00	175.00	100.00	195.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Base Volume Input [veh/h]	0	1554	501	0	2469	838	0	0	0	609	0	1124
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1554	501	0	2469	838	0	0	0	609	0	1124
Peak Hour Factor	1.0000	0.9700	0.9700	1.0000	0.9700	0.9700	1.0000	1.0000	1.0000	0.9700	1.0000	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	401	129	0	636	216	0	0	0	157	0	290
Total Analysis Volume [veh/h]	0	1602	516	0	2545	864	0	0	0	628	0	1159
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	3			0			0			7		
v_ci, Inbound Pedestrian Volume crossing mi	7			0			0			3		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	24			16			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	38.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	0	0	0	3	0	3
Auxiliary Signal Groups			3,6			2,3						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	4	4	0	4	4	0	0	0	4	0	4
Maximum Green [s]	0	35	35	0	35	35	0	0	0	24	0	24
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	0.0	0.0	0.0	3.0	0.0	3.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0
Split [s]	0	75	75	0	75	75	0	0	0	65	0	65
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	30	30	0	7	7	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No					No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	0.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall		Yes	Yes		Yes	Yes				No		
Maximum Recall		No	No		No	No				No		
Pedestrian Recall		No	No		No	No				No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R		L	R
C, Cycle Length [s]	140	140	140	140		140	140
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00		5.00	5.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00		3.00	3.00
g_i, Effective Green Time [s]	72	135	72	135		59	59
g / C, Green / Cycle	0.51	0.96	0.51	0.96		0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.31	0.33	0.50	0.56		0.18	0.41
s, saturation flow rate [veh/h]	5094	1564	5094	1548		3459	2813
c, Capacity [veh/h]	2622	1507	2622	1493		1453	1182
d1, Uniform Delay [s]	24.04	0.13	32.94	0.20		28.75	40.01
k, delay calibration	0.50	0.25	0.50	0.50		0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	1.07	0.32	11.92	1.64		0.08	4.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.61	0.34	0.97	0.58		0.43	0.98
d, Delay for Lane Group [s/veh]	25.11	0.45	44.85	1.84		28.83	44.15
Lane Group LOS	C	A	D	A		C	D
Critical Lane Group	No	No	Yes	No		No	Yes
50th-Percentile Queue Length [veh/ln]	12.54	0.13	29.62	0.68		7.47	19.83
50th-Percentile Queue Length [ft/ln]	313.50	3.31	740.47	17.03		186.76	495.71
95th-Percentile Queue Length [veh/ln]	18.35	0.24	38.54	1.23		11.95	27.13
95th-Percentile Queue Length [ft/ln]	458.68	5.95	963.61	30.66		298.82	678.28

Movement, Approach, & Intersection Results

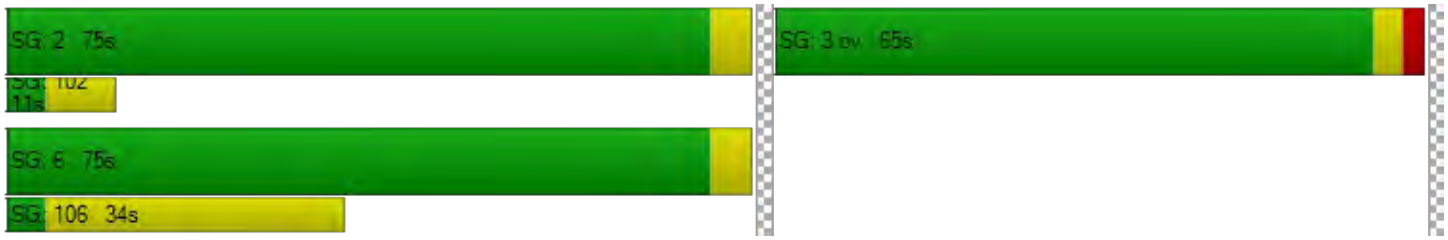
d_M, Delay for Movement [s/veh]	0.00	25.11	0.45	0.00	44.85	1.84	0.00	0.00	0.00	28.83	0.00	44.15
Movement LOS		C	A		D	A				C		D
d_A, Approach Delay [s/veh]	19.10			33.95			0.00			38.76		
Approach LOS	B			C			A			D		
d_I, Intersection Delay [s/veh]	30.83											
Intersection LOS	C											
Intersection V/C	0.952											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	86.21
d_p, Pedestrian Delay [s]	0.00	0.00	62.23	62.23
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.289	2.847
Crosswalk LOS	F	F	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1013	1013	0	857
d_b, Bicycle Delay [s]	17.26	17.19	70.00	22.86
l_b,int, Bicycle LOS Score for Intersection	2.725	3.435	4.132	1.560
Bicycle LOS	B	C	D	A

Sequence

Ring 1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Willow Rd/SB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	18.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.632

Intersection Setup

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	2	0	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	300.00	100.00	100.00	100.00	150.00	100.00	170.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			35.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Base Volume Input [veh/h]	0	1355	995	0	1693	1385	700	0	451	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1355	995	0	1693	1385	700	0	451	0	0	0
Peak Hour Factor	1.0000	0.9700	0.9700	1.0000	0.9700	0.9700	0.9700	1.0000	0.9700	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	349	256	0	436	357	180	0	116	0	0	0
Total Analysis Volume [veh/h]	0	1397	1026	0	1745	1428	722	0	465	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			2			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			2			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	23			16			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	54.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	4	0	0	0	0	0
Auxiliary Signal Groups			4,6			2,4						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	4	4	0	4	4	4	0	0	0	0	0
Maximum Green [s]	0	35	35	0	35	35	50	0	0	0	0	0
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	55	55	0	55	55	85	0	0	0	0	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	7	7	0	32	32	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	3.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		Yes	Yes		Yes	Yes	No					
Maximum Recall		No	No		No	No	No					
Pedestrian Recall		No	No		No	No	No					
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	L	R	
C, Cycle Length [s]	140	140	140	140	140	140	
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00	5.00	5.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00	3.00	3.00	
g_i, Effective Green Time [s]	85	135	85	135	46	46	
g / C, Green / Cycle	0.60	0.96	0.60	0.96	0.33	0.33	
(v / s)_i Volume / Saturation Flow Rate	0.27	0.66	0.34	0.91	0.21	0.17	
s, saturation flow rate [veh/h]	5094	1544	5094	1562	3459	2813	
c, Capacity [veh/h]	3078	1488	3078	1505	1144	930	
d1, Uniform Delay [s]	15.08	0.25	16.65	0.88	39.59	37.53	
k, delay calibration	0.50	0.50	0.50	0.50	0.04	0.04	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.48	2.63	0.76	13.82	0.22	0.15	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.45	0.69	0.57	0.95	0.63	0.50	
d, Delay for Lane Group [s/veh]	15.57	2.89	17.41	14.70	39.80	37.68	
Lane Group LOS	B	A	B	B	D	D	
Critical Lane Group	No	No	No	Yes	No	No	
50th-Percentile Queue Length [veh/ln]	8.00	1.09	11.06	5.78	10.49	6.40	
50th-Percentile Queue Length [ft/ln]	200.06	27.22	276.54	144.50	262.21	160.06	
95th-Percentile Queue Length [veh/ln]	12.64	1.96	16.52	9.72	15.80	10.55	
95th-Percentile Queue Length [ft/ln]	316.05	49.00	412.90	243.06	394.99	263.80	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	15.57	2.89	0.00	17.41	14.70	39.80	0.00	37.68	0.00	0.00	0.00
Movement LOS		B	A		B	B	D		D			
d_A, Approach Delay [s/veh]	10.20			16.19			38.97			0.00		
Approach LOS	B			B			D			A		
d_I, Intersection Delay [s/veh]	18.04											
Intersection LOS	B											
Intersection V/C	0.632											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	62.23	62.23
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.918	2.447
Crosswalk LOS	F	F	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	727	727	1143	0
d_b, Bicycle Delay [s]	28.68	28.58	12.86	70.00
l_b,int, Bicycle LOS Score for Intersection	2.892	3.305	1.560	4.132
Bicycle LOS	C	C	A	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Willow Rd/Bay Rd

Control Type:	Signalized	Delay (sec / veh):	33.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.924

Intersection Setup

Name	Willow Rd		Willow Rd			
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	25.00	100.00	240.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Willow Rd		Willow Rd			
Base Volume Input [veh/h]	64	1860	1572	450	386	76
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	1860	1572	450	386	76
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	489	414	118	102	20
Total Analysis Volume [veh/h]	67	1958	1655	474	406	80
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		1		1	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		1	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	24		15		3	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	60.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	5	2	6	0	4	0
Auxiliary Signal Groups						
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	9	10	8	0	10	0
Maximum Green [s]	16	36	36	0	22	0
Amber [s]	3.0	4.5	4.5	0.0	3.2	0.0
All red [s]	0.5	1.0	1.0	0.0	1.0	0.0
Split [s]	13	78	65	0	62	0
Vehicle Extension [s]	3.0	5.0	3.0	0.0	3.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	31	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	1.5	3.5	3.5	0.0	2.2	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	Yes	Yes		No	
Pedestrian Recall	No	No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	3.50	5.50	5.50	5.50	4.20	4.20
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.50	3.50	3.50	3.50	2.20	2.20
g_i, Effective Green Time [s]	8	92	81	81	38	38
g / C, Green / Cycle	0.06	0.66	0.58	0.58	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.04	0.61	0.52	0.34	0.25	0.06
s, saturation flow rate [veh/h]	1603	3204	3204	1386	1603	1410
c, Capacity [veh/h]	95	2118	1847	799	432	380
d1, Uniform Delay [s]	64.59	20.68	25.97	18.78	49.98	39.53
k, delay calibration	0.11	0.50	0.50	0.50	0.18	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.98	8.35	7.27	3.23	14.90	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.70	0.92	0.90	0.59	0.94	0.21
d, Delay for Lane Group [s/veh]	73.57	29.03	33.24	22.01	64.88	39.80
Lane Group LOS	E	C	C	C	E	D
Critical Lane Group	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.58	27.84	25.14	10.36	15.65	2.19
50th-Percentile Queue Length [ft/ln]	64.44	695.99	628.48	258.94	391.32	54.73
95th-Percentile Queue Length [veh/ln]	4.64	36.49	33.36	15.64	22.14	3.94
95th-Percentile Queue Length [ft/ln]	115.99	912.32	834.05	390.89	553.53	98.52

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	73.57	29.03	33.24	22.01	64.88	39.80
Movement LOS	E	C	C	C	E	D
d_A, Approach Delay [s/veh]	30.50		30.74		60.75	
Approach LOS	C		C		E	
d_I, Intersection Delay [s/veh]	33.78					
Intersection LOS	C					
Intersection V/C	0.924					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	1685.04
d_p, Pedestrian Delay [s]	0.00	0.00	59.43
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.295
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1036	850	826
d_b, Bicycle Delay [s]	16.47	23.32	24.17
l_b,int, Bicycle LOS Score for Intersection	3.230	3.316	1.560
Bicycle LOS	C	C	A

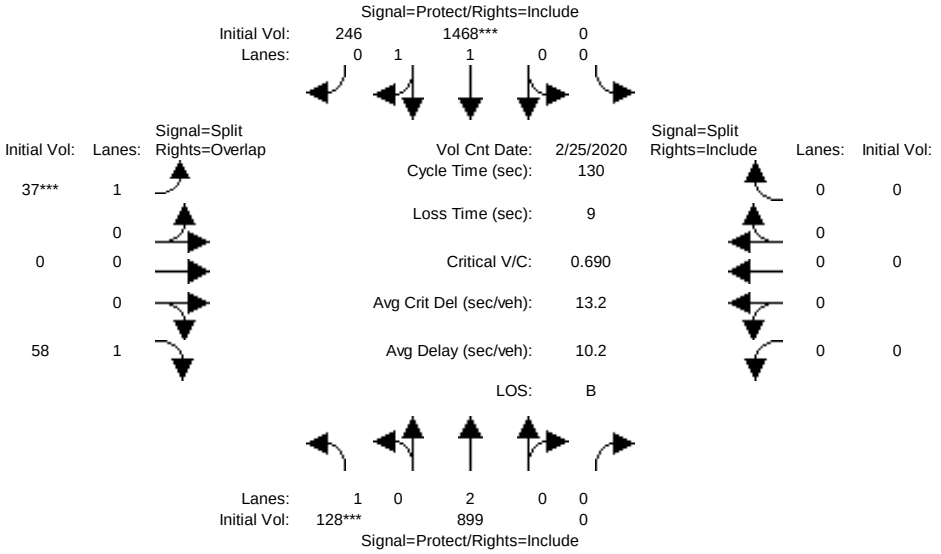
Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Level Of Service Computation Report
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Intersection #2: University Avenue/O'Brien Drive



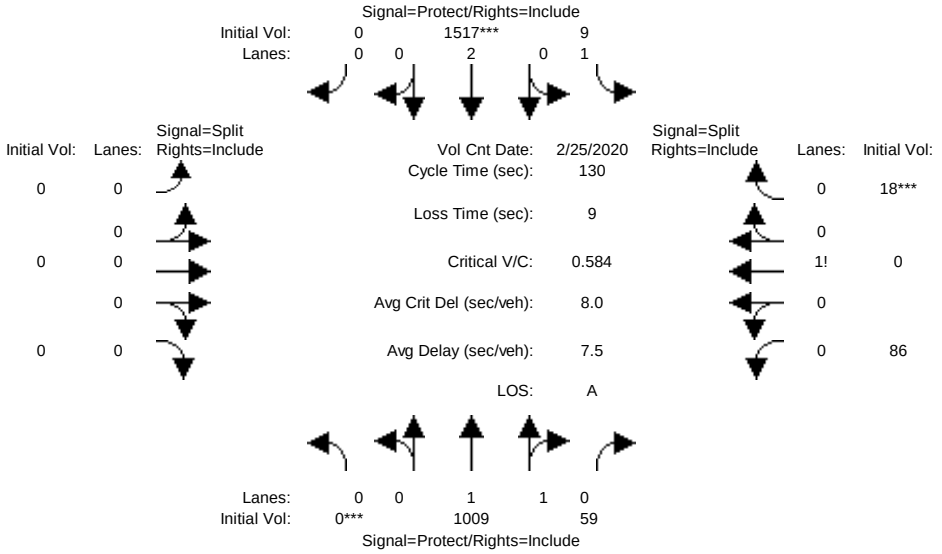
Street Name:	University Avenue						O'Brien Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	10	10	0	8	8	6	6	6	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	128	899	0	0	1468	246	37	0	58	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	899	0	0	1468	246	37	0	58	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	128	899	0	0	1468	246	37	0	58	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	142	999	0	0	1631	273	41	0	64	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	999	0	0	1631	273	41	0	64	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	142	999	0	0	1631	273	41	0	64	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.93	0.92	0.92	1.00	0.82	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.71	0.29	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3019	506	1745	0	1562	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.28	0.00	0.00	0.54	0.54	0.02	0.00	0.04	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.11	0.88	0.00	0.00	0.77	0.77	0.05	0.00	0.16	0.00	0.00	0.00
Volume/Cap:	0.70	0.31	0.00	0.00	0.70	0.70	0.51	0.00	0.26	0.00	0.00	0.00
Uniform Del:	55.6	1.2	0.0	0.0	7.3	7.3	60.6	0.0	48.0	0.0	0.0	0.0
IncremntDel:	10.3	0.1	0.0	0.0	0.8	0.8	5.4	0.0	0.6	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	65.9	1.3	0.0	0.0	8.2	8.2	65.9	0.0	48.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.9	1.3	0.0	0.0	8.2	8.2	65.9	0.0	48.5	0.0	0.0	0.0
LOS by Move:	E	A	A	A	A	A	E	A	D	A	A	A
HCM2kAvgQ:	140	88	0	0	509	504	58	0	60	0	0	0

Note: Queue reported is the distance per lane in feet.

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Intersection #3: University Avenue/Notre Dame Avenue

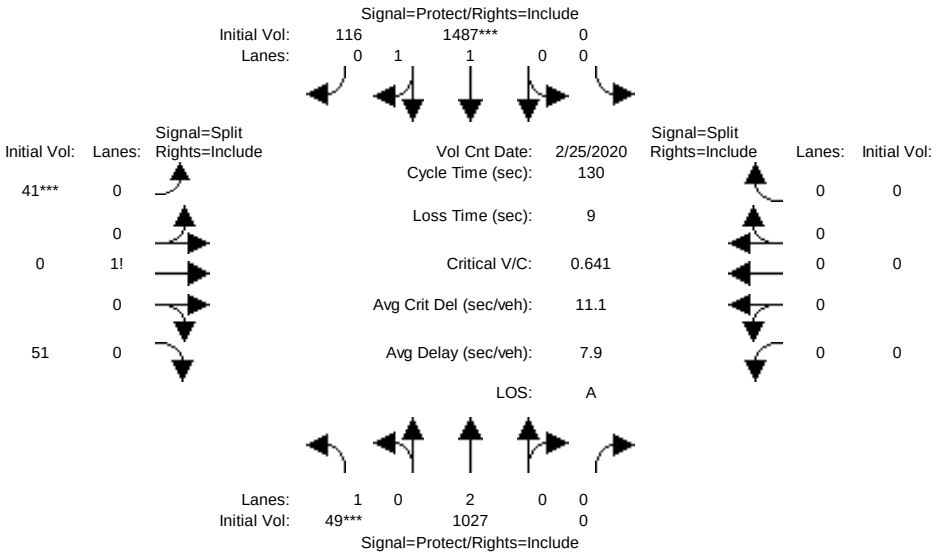


Street Name:	University Avenue						Notre Dame Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	8	8	4	8	0	0	0	0	4	0	4
Y+R:	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	0	1009	59	9	1517	0	0	0	0	86	0	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1009	59	9	1517	0	0	0	0	86	0	18
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1009	59	9	1517	0	0	0	0	86	0	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	0	1147	67	10	1724	0	0	0	0	98	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1147	67	10	1724	0	0	0	0	98	0	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1147	67	10	1724	0	0	0	0	98	0	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.93	0.95	0.95	1.00	1.00	1.00	1.00	0.94	1.00	0.94
Lanes:	0.00	1.89	0.11	1.00	2.00	0.00	0.00	0.00	0.00	0.83	0.00	0.17
Final Sat.:	0	3382	198	1805	3610	0	0	0	0	1473	0	308
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.34	0.01	0.48	0.00	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:	****				****							****
Green/Cycle:	0.00	0.75	0.75	0.07	0.82	0.00	0.00	0.00	0.00	0.11	0.00	0.11
Volume/Cap:	0.00	0.45	0.45	0.08	0.58	0.00	0.00	0.00	0.00	0.58	0.00	0.58
Uniform Del:	0.0	6.2	6.2	56.8	4.2	0.0	0.0	0.0	0.0	54.7	0.0	54.7
IncremntDel:	0.0	0.1	0.1	0.3	0.3	0.0	0.0	0.0	0.0	4.3	0.0	4.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	6.3	6.3	57.1	4.5	0.0	0.0	0.0	0.0	59.0	0.0	59.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.3	6.3	57.1	4.5	0.0	0.0	0.0	0.0	59.0	0.0	59.0
LOS by Move:	A	A	A	E	A	A	A	A	A	E	A	E
HCM2kAvgQ:	0	239	237	9	312	0	0	0	0	133	0	133

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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Intersection #4: University Avenue/Kavanaugh Drive

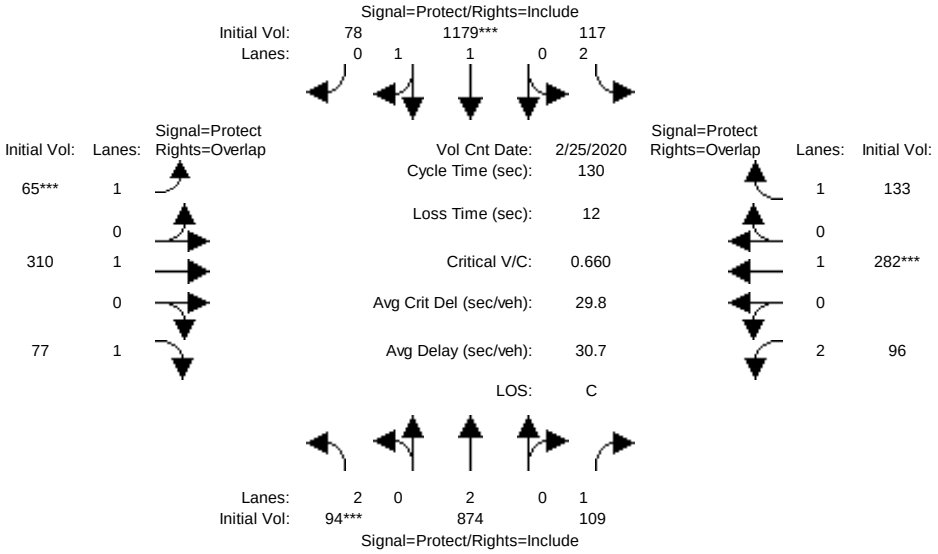


Street Name:	University Avenue						Kavanaugh Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	0	0	8	8	4	0	4	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	3.5	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	49	1027	0	0	1487	116	41	0	51	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	1027	0	0	1487	116	41	0	51	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	1027	0	0	1487	116	41	0	51	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	56	1167	0	0	1690	132	47	0	58	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	1167	0	0	1690	132	47	0	58	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	1167	0	0	1690	132	47	0	58	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.94	0.93	1.00	1.00	0.99	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.85	0.15	0.45	0.00	0.55	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3310	258	841	0	1047	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.32	0.00	0.00	0.51	0.51	0.06	0.00	0.06	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.05	0.84	0.00	0.00	0.80	0.80	0.09	0.00	0.09	0.00	0.00	0.00
Volume/Cap:	0.64	0.38	0.00	0.00	0.64	0.64	0.64	0.00	0.64	0.00	0.00	0.00
Uniform Del:	60.8	2.3	0.0	0.0	5.5	5.5	57.4	0.0	57.4	0.0	0.0	0.0
IncremntDel:	15.1	0.1	0.0	0.0	0.5	0.5	8.4	0.0	8.4	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	75.9	2.4	0.0	0.0	6.0	6.0	65.8	0.0	65.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	75.9	2.4	0.0	0.0	6.0	6.0	65.8	0.0	65.8	0.0	0.0	0.0
LOS by Move:	E	A	A	A	A	A	E	A	E	A	A	A
HCM2kAvgQ:	83	143	0	0	398	395	129	0	128	0	0	0

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumuatlive AM

Intersection #5: University Avenue/Bay Road

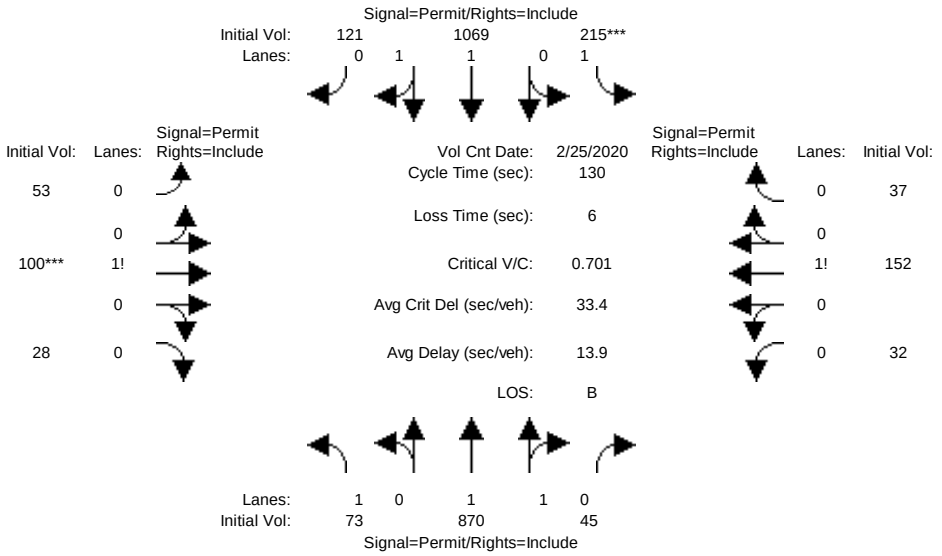


Street Name:	University Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	94	874	109	117	1179	78	65	310	77	96	282	133
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	874	109	117	1179	78	65	310	77	96	282	133
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	874	109	117	1179	78	65	310	77	96	282	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	100	930	116	124	1254	83	69	330	82	102	300	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	930	116	124	1254	83	69	330	82	102	300	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	100	930	116	124	1254	83	69	330	82	102	300	141
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.80	0.92	0.94	0.94	0.95	1.00	0.81	0.92	1.00	0.77
Lanes:	2.00	2.00	1.00	2.00	1.88	0.12	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3502	3610	1514	3502	3355	222	1805	1900	1548	3502	1900	1464
Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.08	0.04	0.37	0.37	0.04	0.17	0.05	0.03	0.16	0.10
Crit Moves:	****				****		****				****	
Green/Cycle:	0.04	0.54	0.54	0.07	0.57	0.57	0.06	0.25	0.30	0.04	0.24	0.31
Volume/Cap:	0.66	0.48	0.14	0.48	0.66	0.66	0.66	0.69	0.18	0.65	0.66	0.31
Uniform Del:	61.2	18.8	15.1	57.8	19.5	19.5	60.0	43.9	34.0	61.1	44.7	33.9
IncremntDel:	10.2	0.2	0.1	1.4	0.8	0.8	14.4	4.1	0.2	9.3	3.6	0.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	71.5	19.0	15.2	59.2	20.3	20.3	74.4	48.1	34.2	70.4	48.2	34.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.5	19.0	15.2	59.2	20.3	20.3	74.4	48.1	34.2	70.4	48.2	34.3
LOS by Move:	E	B	B	E	C	C	E	D	C	E	D	C
HCM2kAvgQ:	53	294	56	77	486	484	98	319	60	80	289	108

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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Intersection #6: University Avenue/Runnymede Street

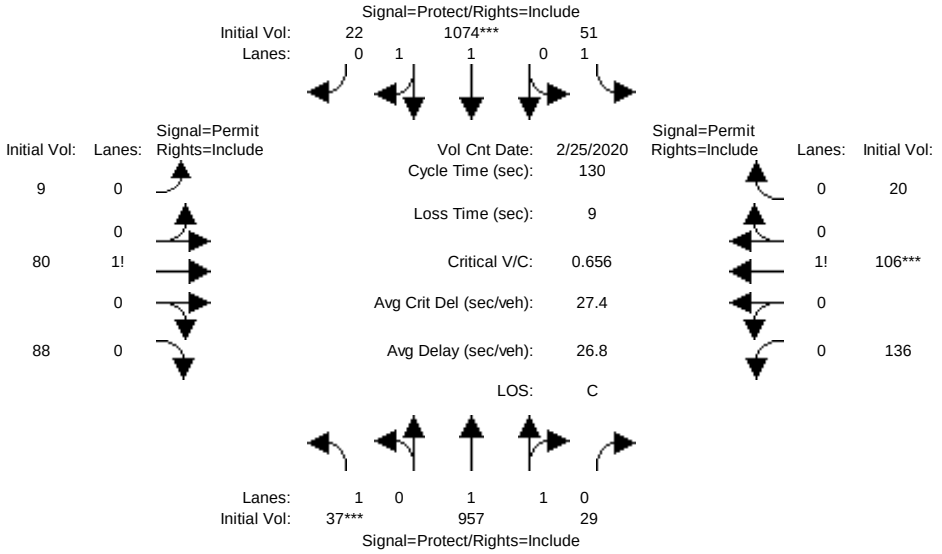


Street Name:	University Avenue						Runnymede Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	8	8	8	8	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	73	870	45	215	1069	121	53	100	28	32	152	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	73	870	45	215	1069	121	53	100	28	32	152	37
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	73	870	45	215	1069	121	53	100	28	32	152	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	82	978	51	242	1201	136	60	112	31	36	171	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	978	51	242	1201	136	60	112	31	36	171	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	82	978	51	242	1201	136	60	112	31	36	171	42
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.16	0.94	0.94	0.25	0.94	0.93	0.67	0.76	0.67	0.89	1.06	0.88
Lanes:	1.00	1.90	0.10	1.00	1.80	0.20	0.31	0.52	0.17	0.16	0.65	0.19
Final Sat.:	313	3408	176	466	3193	361	397	749	210	275	1307	318
Capacity Analysis Module:												
Vol/Sat:	0.26	0.29	0.29	0.52	0.38	0.38	0.15	0.15	0.15	0.13	0.13	0.13
Crit Moves:				****				****				
Green/Cycle:	0.74	0.74	0.74	0.74	0.74	0.74	0.21	0.21	0.21	0.21	0.21	0.21
Volume/Cap:	0.35	0.39	0.39	0.70	0.51	0.51	0.70	0.70	0.70	0.61	0.61	0.61
Uniform Del:	6.0	6.2	6.2	9.1	7.1	7.1	47.2	47.2	47.2	46.2	46.2	46.2
IncremntDel:	0.9	0.1	0.1	6.3	0.2	0.2	7.5	7.5	7.5	2.7	2.7	2.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	6.9	6.3	6.3	15.5	7.2	7.2	54.7	54.7	54.7	48.9	48.9	48.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.9	6.3	6.3	15.5	7.2	7.2	54.7	54.7	54.7	48.9	48.9	48.9
LOS by Move:	A	A	A	B	A	A	D	D	D	D	D	D
HCM2kAvgQ:	30	191	190	136	284	283	208	230	208	216	252	215

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumuatlive AM

Intersection #7: University Avenue/Bell Street



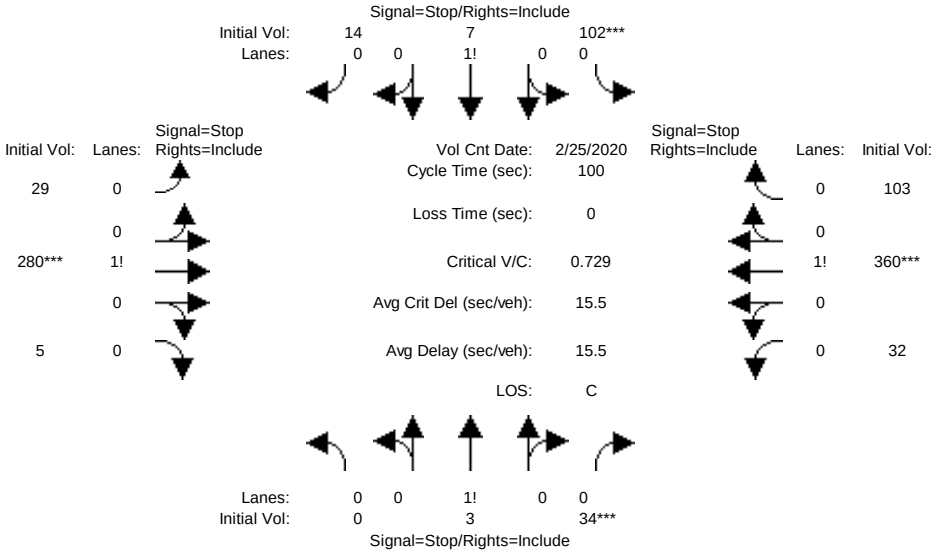
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	37	957	29	51	1074	22	9	80	88	136	106	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	957	29	51	1074	22	9	80	88	136	106	20
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	957	29	51	1074	22	9	80	88	136	106	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	42	1088	33	58	1220	25	10	91	100	155	120	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	1088	33	58	1220	25	10	91	100	155	120	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	42	1088	33	58	1220	25	10	91	100	155	120	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.92	0.90	0.65	0.65	0.65
Lanes:	1.00	1.94	0.06	1.00	1.96	0.04	0.05	0.45	0.50	0.52	0.40	0.08
Final Sat.:	1805	3490	106	1805	3527	72	88	782	860	641	499	94
Capacity Analysis Module:												
Vol/Sat:	0.02	0.31	0.31	0.03	0.35	0.35	0.12	0.12	0.12	0.24	0.24	0.24
Crit Moves:	****				****						****	
Green/Cycle:	0.04	0.51	0.51	0.05	0.53	0.53	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.66	0.61	0.61	0.61	0.66	0.66	0.32	0.32	0.32	0.66	0.66	0.66
Uniform Del:	61.9	22.6	22.6	60.3	22.2	22.2	29.4	29.4	29.4	34.2	34.2	34.2
IncremntDel:	22.0	0.6	0.6	11.1	0.8	0.8	0.3	0.3	0.3	3.5	3.5	3.5
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	83.9	23.2	23.2	71.4	23.0	23.0	29.7	29.7	29.7	37.7	37.7	37.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	83.9	23.2	23.2	71.4	23.0	23.0	29.7	29.7	29.7	37.7	37.7	37.7
LOS by Move:	F	C	C	E	C	C	C	C	C	D	D	D
HCM2kAvgQ:	70	417	416	58	461	461	142	142	141	267	268	268

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumuatlive AM

Intersection #14: Bay Road/Newbridge Street/Ralmar Avenue



Street Name:	Bay Road/Ralmar Avenue						Bay Road/Newbridge Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:30AM												
Base Vol:	0	3	34	102	7	14	29	280	5	32	360	103
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	3	34	102	7	14	29	280	5	32	360	103
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3	34	102	7	14	29	280	5	32	360	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	3	37	112	8	15	32	308	5	35	396	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3	37	112	8	15	32	308	5	35	396	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	3	37	112	8	15	32	308	5	35	396	113
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.08	0.92	0.83	0.06	0.11	0.09	0.89	0.02	0.06	0.73	0.21
Final Sat.:	0	44	499	443	30	61	64	613	11	48	543	155
Capacity Analysis Module:												
Vol/Sat:	xxxx	0.07	0.07	0.25	0.25	0.25	0.50	0.50	0.50	0.73	0.73	0.73
Crit Moves:			****	****				****			****	
Delay/Veh:	0.0	9.0	9.0	10.8	10.8	10.8	12.8	12.8	12.8	18.9	18.9	18.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	9.0	9.0	10.8	10.8	10.8	12.8	12.8	12.8	18.9	18.9	18.9
LOS by Move:	*	A	A	B	B	B	B	B	B	C	C	C
ApproachDel:		9.0			10.8			12.8			18.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.0			10.8			12.8			18.9	
LOS by Appr:		A			B			B			C	
AllWayAvgQ:	1.4	1.4	1.4	6.6	6.6	6.6	22.5	22.5	22.5	57.6	57.6	57.6

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #14 Bay Road/Newbridge Street/Ralmar Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Initial Vol:	0	3	34	102	7	14	29	280	5	32	360	103

Major Street Volume: 809
Minor Approach Volume: 123
Minor Approach Volume Threshold: 276

SIGNAL WARRANT DISCLAIMER

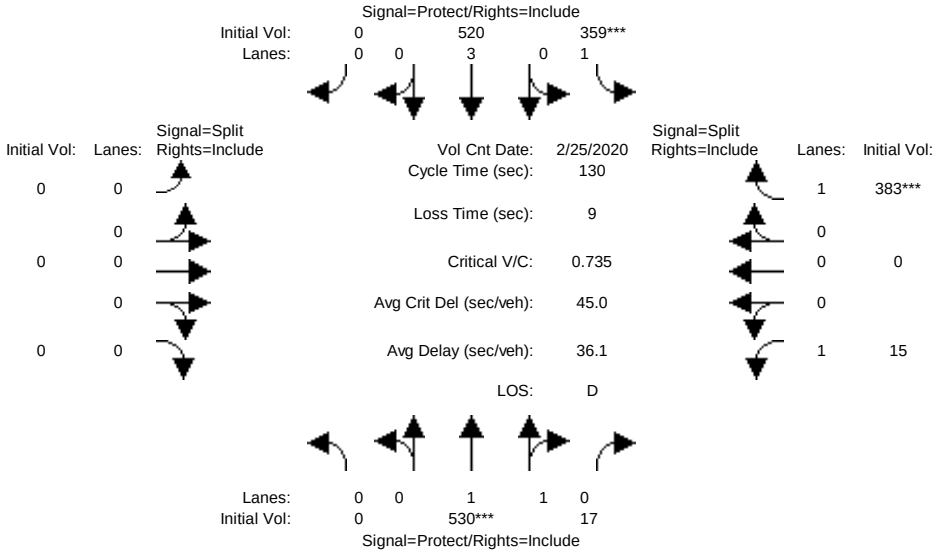
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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Intersection #17: Donohoe Street/E Bayshore Road

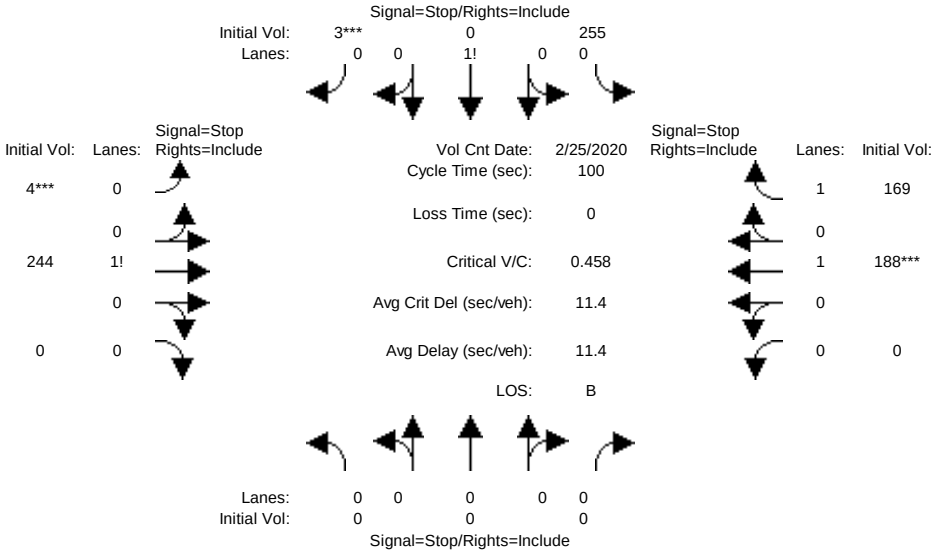


Street Name:	Donohoe Street/E Bayshore Road						Donohoe Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 7:00AM												
Base Vol:	0	530	17	359	520	0	0	0	0	15	0	383
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	530	17	359	520	0	0	0	0	15	0	383
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	530	17	359	520	0	0	0	0	15	0	383
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	0	616	20	417	605	0	0	0	0	17	0	445
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	616	20	417	605	0	0	0	0	17	0	445
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	616	20	417	605	0	0	0	0	17	0	445
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.94	0.95	0.91	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.94	0.06	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3480	112	1805	5187	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.18	0.23	0.12	0.00	0.00	0.00	0.00	0.01	0.00	0.28
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.24	0.24	0.31	0.56	0.00	0.00	0.00	0.00	0.38	0.00	0.38
Volume/Cap:	0.00	0.74	0.74	0.74	0.21	0.00	0.00	0.00	0.00	0.03	0.00	0.74
Uniform Del:	0.0	45.5	45.5	39.7	14.5	0.0	0.0	0.0	0.0	25.6	0.0	35.0
IncremntDel:	0.0	3.3	3.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	48.8	48.8	44.7	14.6	0.0	0.0	0.0	0.0	25.6	0.0	39.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	48.8	48.8	44.7	14.6	0.0	0.0	0.0	0.0	25.6	0.0	39.7
LOS by Move:	A	D	D	D	B	A	A	A	A	C	A	D
HCM2kAvgQ:	0	339	338	397	107	0	0	0	0	11	0	409

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumuatlive AM

Intersection #19: Woodland Avenue/Manhattan Avenue



Street Name:	Manhattan Avenue						Woodland Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:15AM												
Base Vol:	0	0	0	255	0	3	4	244	0	0	188	169
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	255	0	3	4	244	0	0	188	169
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	255	0	3	4	244	0	0	188	169
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	280	0	3	4	268	0	0	207	186
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	280	0	3	4	268	0	0	207	186
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	280	0	3	4	268	0	0	207	186
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.99	0.00	0.01	0.02	0.98	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	612	0	7	11	649	0	0	623	709
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	0.46	xxxx	0.46	0.41	0.41	xxxx	xxxx	0.33	0.26
Crit Moves:						****	****				****	
Delay/Veh:	0.0	0.0	0.0	12.8	0.0	12.8	11.7	11.7	0.0	0.0	10.9	9.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	12.8	0.0	12.8	11.7	11.7	0.0	0.0	10.9	9.3
LOS by Move:	*	*	*	B	*	B	B	B	*	*	B	A
ApproachDel:	xxxxxx			12.8			11.7			10.2		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			12.8			11.7			10.2		
LOS by Appr:	*			B			B			B		
AllWayAvgQ:	0.0	0.0	0.0	18.2	18.2	18.2	15.8	15.8	15.8	0.0	11.4	8.2

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Woodland Avenue/Manhattan Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	0	0	0	1!	0	0	1	0	0	1
Initial Vol:	0	0	0	255	0	3	4	244	0	0	188	169

Major Street Volume: 605
Minor Approach Volume: 258
Minor Approach Volume Threshold: 458

SIGNAL WARRANT DISCLAIMER

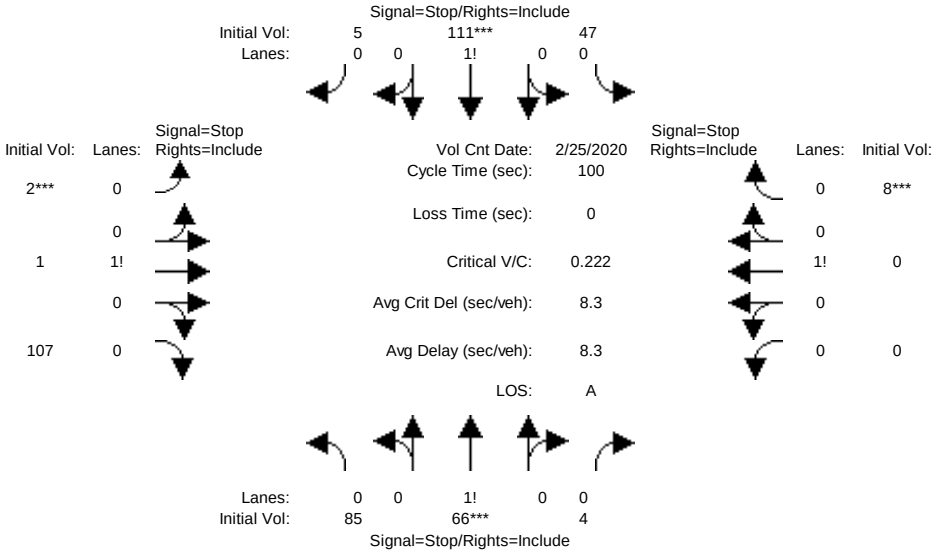
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumuatlive AM

Intersection #20: O'Conner Street/Manhattan Avenue



Street Name:	Manhattan Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:15AM												
Base Vol:	85	66	4	47	111	5	2	1	107	0	0	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	85	66	4	47	111	5	2	1	107	0	0	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	66	4	47	111	5	2	1	107	0	0	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	92	72	4	51	121	5	2	1	116	0	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	72	4	51	121	5	2	1	116	0	0	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	72	4	51	121	5	2	1	116	0	0	9
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.55	0.42	0.03	0.29	0.68	0.03	0.02	0.01	0.97	0.00	0.00	1.00
Final Sat.:	432	335	20	230	544	25	15	8	803	0	0	790
Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.21	0.22	0.22	0.22	0.14	0.14	0.14	xxxx	xxxx	0.01
Crit Moves:		****			****		****					****
Delay/Veh:	8.6	8.6	8.6	8.6	8.6	8.6	7.7	7.7	7.7	0.0	0.0	7.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.6	8.6	8.6	8.6	8.6	8.6	7.7	7.7	7.7	0.0	0.0	7.2
LOS by Move:	A	A	A	A	A	A	A	A	A	*	*	A
ApproachDel:	8.6			8.6			7.7			7.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.6			8.6			7.7			7.2		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	6.4	6.4	6.4	6.7	6.7	6.7	3.7	3.7	3.7	0.2	0.2	0.2

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #20 O'Conner Street/Manhattan Avenue

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	0 0	1
Initial Vol:	85	66	4	47	111	5	2	1	107	0	0	8

Major Street Volume: 318
Minor Approach Volume: 110
Minor Approach Volume Threshold: 525

SIGNAL WARRANT DISCLAIMER

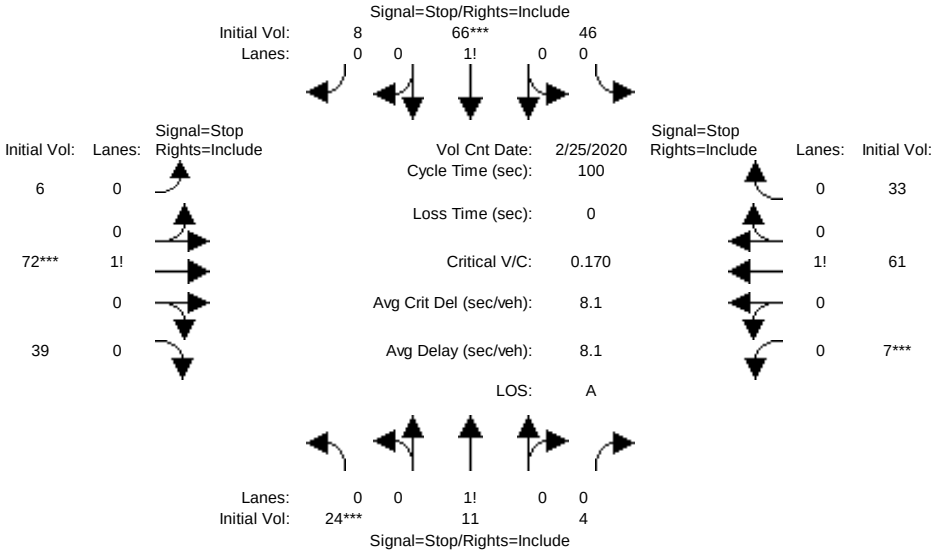
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumuatlive AM

Intersection #21: O'Conner Street/Euclid Avenue



Street Name:	Euclid Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:45AM												
Base Vol:	24	11	4	46	66	8	6	72	39	7	61	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	11	4	46	66	8	6	72	39	7	61	33
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	11	4	46	66	8	6	72	39	7	61	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	26	12	4	50	72	9	7	78	42	8	66	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	12	4	50	72	9	7	78	42	8	66	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	12	4	50	72	9	7	78	42	8	66	36
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.28	0.10	0.38	0.55	0.07	0.05	0.62	0.33	0.07	0.60	0.33
Final Sat.:	456	209	76	295	423	51	42	506	274	57	493	266
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.17	0.17	0.17	0.15	0.15	0.15	0.13	0.13	0.13
Crit Moves:	****				****			****			****	
Delay/Veh:	7.9	7.9	7.9	8.4	8.4	8.4	8.0	8.0	8.0	7.9	7.9	7.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.9	7.9	7.9	8.4	8.4	8.4	8.0	8.0	8.0	7.9	7.9	7.9
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.9			8.4			8.0			7.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.9			8.4			8.0			7.9		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	1.4	1.4	1.4	4.6	4.6	4.6	4.2	4.2	4.2	3.6	3.6	3.6

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #21 O'Conner Street/Euclid Avenue

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Initial Vol:	24	11	4	46	66	8	6	72	39	7	61	33

Major Street Volume: 218
Minor Approach Volume: 120
Minor Approach Volume Threshold: 626

SIGNAL WARRANT DISCLAIMER

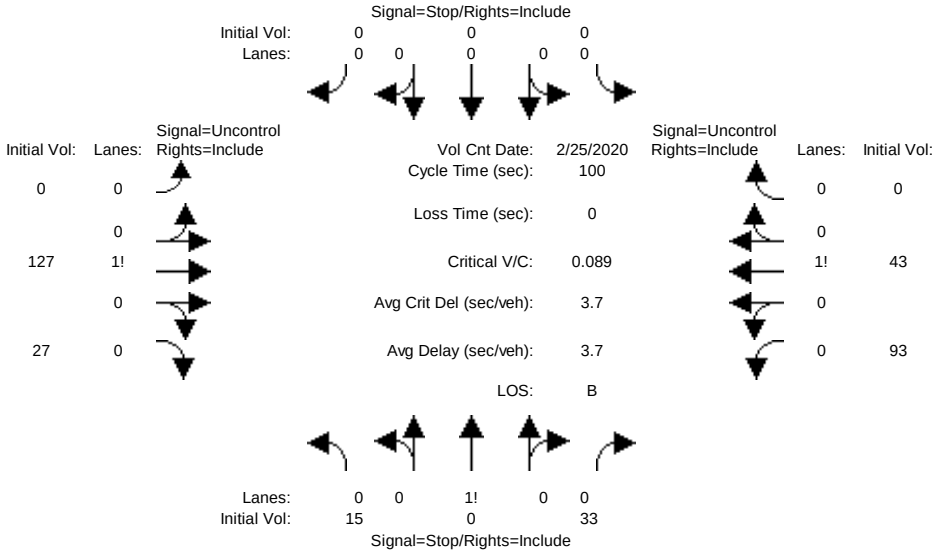
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumuatlive AM

Intersection #22: W Bayshore Road/Euclid Avenue



Street Name:	Euclid Avenue						W Bayshore Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 25 Feb 2020 << 7:00AM												
Base Vol:	15	0	33	0	0	0	0	127	27	93	43	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	0	33	0	0	0	0	127	27	93	43	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	0	33	0	0	0	0	127	27	93	43	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
PHF Volume:	20	0	43	0	0	0	0	167	36	122	57	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	20	0	43	0	0	0	0	167	36	122	57	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	486	486	186	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	203	xxxx	xxxxx
Potent Cap.:	544	484	861	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1381	xxxx	xxxxx
Move Cap.:	504	438	861	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1381	xxxx	xxxxx
Volume/Cap:	0.04	0.00	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	705	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		10.6		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B		*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

****

Intersection #22 W Bayshore Road/Euclid Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	15	0	33	0	0	0	0	127	27	93	43	0
ApproachDel:	10.6			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=48]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=338]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #22 W Bayshore Road/Euclid Avenue

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	15	0	33	0	0	0	0	127	27	93	43	0

Major Street Volume: 290
Minor Approach Volume: 48
Minor Approach Volume Threshold: 550

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	40.5	4.4
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	108.5	123.6	123.9
Total Delay (hr)	0.2	0.6	6.4	8.1	8.3	1.2	11.4	4.6	2.0	1.7	122.4	11.6
Total Del/Veh (s)	73.1	19.4	43.7	66.8	68.3	11.9	245.3	31.9	12.4	372.3	399.7	348.9
Avg Speed (mph)	3	8	5	3	3	10	1	5	10	3	3	3
Vehicles Entered	11	109	524	419	432	357	162	508	560	15	1041	115

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	45.4
Denied Del/Veh (s)	37.1
Total Delay (hr)	178.4
Total Del/Veh (s)	147.0
Avg Speed (mph)	3
Vehicles Entered	4253

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.2	0.2	0.1	0.0	0.0	0.0	0.1
Total Delay (hr)	27.6	56.7	16.1	1.9	13.1	11.9	127.2
Total Del/Veh (s)	266.1	351.1	48.9	15.0	55.7	27.8	92.1
Avg Speed (mph)	6	5	5	10	8	12	6
Vehicles Entered	352	551	1162	448	833	1517	4863

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.5	2.4	0.5	9.1	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	25.6	23.0	24.9	29.2	32.9	20.5	0.0	0.0	0.0
Total Delay (hr)	5.9	1.2	0.6	0.3	2.2	7.9	4.5	71.6	0.9	3.1	7.1	1.3
Total Del/Veh (s)	49.3	49.2	35.1	121.8	102.8	84.4	243.4	252.3	250.0	56.9	23.3	9.3
Avg Speed (mph)	3	3	3	3	4	4	8	8	8	4	8	13
Vehicles Entered	427	90	57	10	76	332	62	951	12	193	1080	507

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	12.7
Denied Del/Veh (s)	11.8
Total Delay (hr)	106.6
Total Del/Veh (s)	98.2
Avg Speed (mph)	8
Vehicles Entered	3797

15: NB US 101 On-ramp/Private DWY & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.4	15.5	14.2	0.0	0.0	0.0	0.0	0.0	0.0	30.1
Denied Del/Veh (s)	89.4	85.9	87.8	0.1	0.0	0.0	0.1	0.1	0.1	54.9
Total Delay (hr)	0.5	11.3	3.4	4.8	0.2	0.1	0.2	0.2	0.0	20.7
Total Del/Veh (s)	105.1	63.2	21.5	39.1	3.7	2.8	62.5	66.4	15.5	37.8
Avg Speed (mph)	3	4	8	5	18	17	2	2	6	6
Vehicles Entered	17	634	566	438	146	114	8	9	11	1943

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBR	All
Denied Delay (hr)	0.0	225.2	6.0	3.8	0.7	2.1	0.0	237.8
Denied Del/Veh (s)	0.0	609.5	679.8	22.3	28.5	23.7	0.1	277.6
Total Delay (hr)	2.5	225.7	4.7	11.2	0.8	1.5	0.4	246.7
Total Del/Veh (s)	13.4	940.3	847.8	66.5	34.2	17.5	61.9	344.0
Avg Speed (mph)	9	2	2	8	12	16	2	2
Vehicles Entered	676	737	17	588	80	305	23	2426

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.3	0.4	0.1	0.1	0.1	0.1	0.2
Total Delay (hr)	0.3	5.6	2.3	0.6	1.9	0.3	11.1
Total Del/Veh (s)	40.8	40.6	25.3	6.9	71.9	93.9	30.9
Avg Speed (mph)	14	14	4	9	7	5	11
Vehicles Entered	29	488	319	328	92	13	1269

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	10.2	0.7	0.3	0.2	11.5
Denied Del/Veh (s)	84.2	2.1	2.6	0.4	10.3
Total Delay (hr)	21.8	12.9	4.4	4.4	43.5
Total Del/Veh (s)	173.4	37.1	37.4	8.2	38.6
Avg Speed (mph)	3	10	10	13	8
Vehicles Entered	430	1247	421	1920	4018

Total Network Performance

Denied Delay (hr)	337.6
Denied Del/Veh (s)	141.3
Total Delay (hr)	745.1
Total Del/Veh (s)	318.3
Avg Speed (mph)	7
Vehicles Entered	7690

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	46	119	342	225	313	323	265	215	247	322	322	175
Average Queue (ft)	10	44	299	211	287	246	100	163	165	211	187	140
95th Queue (ft)	33	99	392	297	304	334	208	265	304	360	326	208
Link Distance (ft)		313	313		266	266	266			282	282	
Upstream Blk Time (%)			16		44	13	2			24	2	
Queuing Penalty (veh)			54		290	85	14			169	14	
Storage Bay Dist (ft)	200			175				200	200			125
Storage Blk Time (%)				25	68			35	29	2	13	11
Queuing Penalty (veh)				173	229			96	80	4	81	31

Intersection: 8: University Avenue & Donohoe Street

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	299	2345	2343	300
Average Queue (ft)	46	1894	1889	214
95th Queue (ft)	201	2817	2805	419
Link Distance (ft)		2292	2292	
Upstream Blk Time (%)		50	52	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)	250			250
Storage Blk Time (%)		74	74	0
Queuing Penalty (veh)		14	93	0

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	2086	2121	250	384	392	370	125	250	275	957	950
Average Queue (ft)	1286	1374	249	347	353	106	75	232	259	519	509
95th Queue (ft)	2214	2233	263	401	403	252	118	284	306	902	897
Link Distance (ft)	3124	3124		354	354	354				939	939
Upstream Blk Time (%)				8	13	2				1	1
Queuing Penalty (veh)				50	75	12				10	9
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		82	51					4	17	5	
Queuing Penalty (veh)		225	228					37	145	48	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	181	191	167	610	75	225	3816	290	300	353	356	282
Average Queue (ft)	136	158	96	344	74	99	2083	286	155	244	252	125
95th Queue (ft)	198	191	171	660	79	250	4714	310	261	349	348	235
Link Distance (ft)	159	159	159	645			5041		354	354	354	354
Upstream Blk Time (%)	11	23	4	12			10		0	0	0	
Queuing Penalty (veh)	21	44	8	0			0		0	0	1	
Storage Bay Dist (ft)					25	175		240				
Storage Blk Time (%)				50	73	0	52	58				
Queuing Penalty (veh)				167	67	0	304	332				

Intersection: 15: NB US 101 On-ramp/Private DWY & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	R	L	T	TR	LTR
Maximum Queue (ft)	109	473	458	343	325	317	78
Average Queue (ft)	29	406	377	260	68	57	26
95th Queue (ft)	94	558	576	369	251	206	62
Link Distance (ft)		429	429	313	313	313	196
Upstream Blk Time (%)		47	18	7	1	1	
Queuing Penalty (veh)		0	0	24	3	2	
Storage Bay Dist (ft)	60						
Storage Blk Time (%)	1	61					
Queuing Penalty (veh)	4	11					

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	T	T	T	T	TR	L	L	T	R	R
Maximum Queue (ft)	189	212	3106	3112	295	396	504	335	215	66
Average Queue (ft)	100	119	2916	2911	257	227	246	104	92	23
95th Queue (ft)	166	182	3573	3576	415	384	577	448	178	56
Link Distance (ft)	266	266	3057	3057			1046	1046		230
Upstream Blk Time (%)		0	80	80			5	3		
Queuing Penalty (veh)		0	0	0			0	0		
Storage Bay Dist (ft)					245	475			200	
Storage Blk Time (%)				70	6	6	6		1	
Queuing Penalty (veh)				326	27	18	18		1	

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	250	462	159	191	125	138	195
Average Queue (ft)	132	206	91	124	93	36	62
95th Queue (ft)	247	396	162	202	153	158	206
Link Distance (ft)		2014	159	159		999	999
Upstream Blk Time (%)			0	4			
Queuing Penalty (veh)			1	16			
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	1	10		27	2		
Queuing Penalty (veh)	3	27		52	6		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	889	742	765	326	322
Average Queue (ft)	632	277	321	93	97
95th Queue (ft)	1082	895	923	308	305
Link Distance (ft)	846	939	939	282	282
Upstream Blk Time (%)	38	3	4	2	2
Queuing Penalty (veh)	0	23	39	29	25
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 3866

Woodland Euclid Park Improvements TIA

Vistro File: C:\...\01 - Existing Baseline.vistro
Scenario 6 Cumulative PM

Report File: C:\...\06 - Cumulative PM.pdf
8/11/2020

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	University Ave/Bayfront Expy	Signalized	HCM 6th Edition	NB Right	1.424	266.8	F
11	Willow Rd/NB US-101 Ramps	Signalized	HCM 6th Edition	WB Right	0.828	28.1	C
12	Willow Rd/SB US-101 Ramps	Signalized	HCM 6th Edition	EB Right	0.861	17.4	B
13	Willow Rd/Bay Rd	Signalized	HCM 6th Edition	NB Left	0.828	26.4	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: University Ave/Bayfront Expy

Control Type:	Signalized	Delay (sec / veh):	266.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.424

Intersection Setup

Name	University Ave		Bayfront Expy		Bayfront Expy	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	2	0	1	2	0
Entry Pocket Length [ft]	175.00	1260.00	100.00	430.00	830.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	University Ave		Bayfront Expy		Bayfront Expy	
Base Volume Input [veh/h]	66	2425	4607	53	619	1142
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	2425	4607	53	619	1142
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	625	1187	14	160	294
Total Analysis Volume [veh/h]	68	2500	4749	55	638	1177
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		1		0	
v_ci, Inbound Pedestrian Volume crossing mi	1		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	8		23		6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	240
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	198.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Split	Overlap	Permissive	Permissive	Protected	Permissive
Signal Group	4	4	6	0	5	2
Auxiliary Signal Groups		4,5				
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	12	12	10	0	11	10
Maximum Green [s]	15	15	175	0	50	60
Amber [s]	3.0	3.0	5.0	0.0	3.0	5.4
All red [s]	1.0	1.0	1.0	0.0	0.5	0.5
Split [s]	38	38	146	0	56	202
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	5	5	5	0	0	10
Pedestrian Clearance [s]	29	29	35	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	4.0	0.0	1.5	3.9
Minimum Recall	No	No	Yes		No	Yes
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	240	240	240	240	240	240
L, Total Lost Time per Cycle [s]	4.00	3.50	6.00	6.00	3.50	5.90
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	0.00	4.00	4.00	1.50	3.90
g_i, Effective Green Time [s]	34	90	140	140	52	196
g / C, Green / Cycle	0.14	0.38	0.58	0.58	0.22	0.82
(v / s)_i Volume / Saturation Flow Rate	0.02	0.60	0.93	0.04	0.18	0.23
s, saturation flow rate [veh/h]	3459	4173	5094	1556	3459	5094
c, Capacity [veh/h]	490	1571	2973	909	756	4163
d1, Uniform Delay [s]	90.20	74.27	49.96	21.54	89.88	5.22
k, delay calibration	0.04	0.50	0.50	0.50	0.04	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.05	269.06	270.38	0.13	1.02	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	1.59	1.60	0.06	0.84	0.28
d, Delay for Lane Group [s/veh]	90.25	343.33	320.34	21.67	90.89	5.39
Lane Group LOS	F	F	F	C	F	A
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	1.88	71.22	131.49	1.40	19.00	4.35
50th-Percentile Queue Length [ft/ln]	47.00	1780.40	3287.17	34.94	475.08	108.78
95th-Percentile Queue Length [veh/ln]	3.38	109.23	202.14	2.52	26.15	7.77
95th-Percentile Queue Length [ft/ln]	84.60	2730.81	5053.56	62.89	653.82	194.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	90.25	343.33	320.34	21.67	90.89	5.39
Movement LOS	F	F	F	C	F	A
d_A, Approach Delay [s/veh]	336.63		316.92		35.44	
Approach LOS	F		F		D	
d_I, Intersection Delay [s/veh]	266.82					
Intersection LOS	F					
Intersection V/C	1.424					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2790.41	0.00	0.00
d_p, Pedestrian Delay [s]	111.17	0.00	111.17
l_p,int, Pedestrian LOS Score for Intersection	3.170	0.000	4.613
Crosswalk LOS	C	F	E
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	283	1167	1634
d_b, Bicycle Delay [s]	88.76	21.08	4.03
l_b,int, Bicycle LOS Score for Intersection	1.560	4.202	2.558
Bicycle LOS	A	D	B

Sequence

Ring 1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Willow Rd/NB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	28.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.828

Intersection Setup

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	405.00	100.00	100.00	100.00	175.00	100.00	195.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Base Volume Input [veh/h]	0	1316	194	0	1929	647	0	0	0	444	0	998
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1316	194	0	1929	647	0	0	0	444	0	998
Peak Hour Factor	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	358	53	0	524	176	0	0	0	121	0	271
Total Analysis Volume [veh/h]	0	1430	211	0	2097	703	0	0	0	483	0	1085
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	9			0			0			2		
v_ci, Inbound Pedestrian Volume crossing mi	2			0			0			9		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			17			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	160
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	2.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	0	0	0	3	0	3
Auxiliary Signal Groups			3,6			2,3						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	4	4	0	4	4	0	0	0	4	0	4
Maximum Green [s]	0	35	35	0	35	35	0	0	0	24	0	24
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	0.0	0.0	0.0	3.0	0.0	3.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0
Split [s]	0	81	81	0	81	81	0	0	0	79	0	79
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	30	30	0	7	7	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No					No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	0.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall		Yes	Yes		Yes	Yes				No		
Maximum Recall		No	No		No	No				No		
Pedestrian Recall		No	No		No	No				No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R		L	R
C, Cycle Length [s]	160	160	160	160		160	160
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00		5.00	5.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00		3.00	3.00
g_i, Effective Green Time [s]	88	155	88	155		63	63
g / C, Green / Cycle	0.55	0.97	0.55	0.97		0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.28	0.13	0.41	0.45		0.14	0.39
s, saturation flow rate [veh/h]	5094	1569	5094	1547		3459	2813
c, Capacity [veh/h]	2802	1519	2802	1499		1360	1106
d1, Uniform Delay [s]	22.52	0.09	27.54	0.14		34.25	47.96
k, delay calibration	0.50	0.04	0.50	0.50		0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	0.67	0.02	1.88	1.06		0.06	4.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.14	0.75	0.47		0.36	0.98
d, Delay for Lane Group [s/veh]	23.19	0.11	29.42	1.20		34.30	52.39
Lane Group LOS	C	A	C	A		C	D
Critical Lane Group	No	No	Yes	No		No	Yes
50th-Percentile Queue Length [veh/ln]	11.37	0.01	20.56	0.44		6.71	21.74
50th-Percentile Queue Length [ft/ln]	284.28	0.16	514.09	10.99		167.67	543.61
95th-Percentile Queue Length [veh/ln]	16.90	0.01	28.00	0.79		10.95	29.39
95th-Percentile Queue Length [ft/ln]	422.53	0.29	700.01	19.78		273.85	734.79

Movement, Approach, & Intersection Results

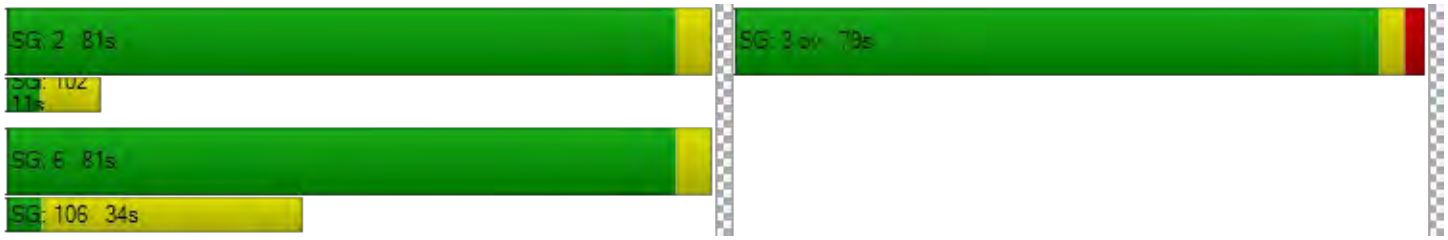
d_M, Delay for Movement [s/veh]	0.00	23.19	0.11	0.00	29.42	1.20	0.00	0.00	0.00	34.30	0.00	52.39
Movement LOS		C	A		C	A				C		D
d_A, Approach Delay [s/veh]	20.22			22.33			0.00			46.82		
Approach LOS	C			C			A			D		
d_I, Intersection Delay [s/veh]	28.14											
Intersection LOS	C											
Intersection V/C	0.828											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	254.72
d_p, Pedestrian Delay [s]	0.00	0.00	72.20	72.20
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.138	2.733
Crosswalk LOS	F	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	961	961	0	925
d_b, Bicycle Delay [s]	21.66	21.77	80.00	23.11
l_b,int, Bicycle LOS Score for Intersection	2.462	3.100	4.132	1.560
Bicycle LOS	B	C	D	A

Sequence

Ring 1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Willow Rd/SB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	17.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.861

Intersection Setup

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	2	0	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	300.00	100.00	100.00	100.00	150.00	100.00	170.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			35.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Base Volume Input [veh/h]	0	1154	334	0	1283	1090	356	0	537	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1154	334	0	1283	1090	356	0	537	0	0	0
Peak Hour Factor	1.0000	0.8800	0.8800	1.0000	0.8800	0.8800	0.8800	1.0000	0.8800	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	328	95	0	364	310	101	0	153	0	0	0
Total Analysis Volume [veh/h]	0	1311	380	0	1458	1239	405	0	610	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			3			5			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			5			3			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	8			18			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	160
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	99.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	4	0	0	0	0	0
Auxiliary Signal Groups			4,6			2,4						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	4	4	0	4	4	4	0	0	0	0	0
Maximum Green [s]	0	35	35	0	35	35	50	0	0	0	0	0
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	79	79	0	79	79	81	0	0	0	0	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	7	7	0	32	32	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	3.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		Yes	Yes		Yes	Yes	No					
Maximum Recall		No	No		No	No	No					
Pedestrian Recall		No	No		No	No	No					
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	L	R	
C, Cycle Length [s]	160	160	160	160	160	160	
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00	5.00	5.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00	3.00	3.00	
g_i, Effective Green Time [s]	115	155	115	155	36	36	
g / C, Green / Cycle	0.72	0.97	0.72	0.97	0.23	0.23	
(v / s)_i Volume / Saturation Flow Rate	0.26	0.24	0.29	0.80	0.12	0.22	
s, saturation flow rate [veh/h]	5094	1553	5094	1552	3459	2813	
c, Capacity [veh/h]	3653	1504	3653	1503	782	636	
d1, Uniform Delay [s]	8.62	0.10	8.97	0.35	54.24	61.14	
k, delay calibration	0.50	0.04	0.50	0.50	0.04	0.04	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.28	0.03	0.33	5.26	0.20	4.32	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.36	0.25	0.40	0.82	0.52	0.96	
d, Delay for Lane Group [s/veh]	8.89	0.14	9.29	5.62	54.43	65.46	
Lane Group LOS	A	A	A	A	D	E	
Critical Lane Group	No	No	No	Yes	No	Yes	
50th-Percentile Queue Length [veh/ln]	5.67	0.01	6.56	2.20	7.19	12.56	
50th-Percentile Queue Length [ft/ln]	141.66	0.34	163.99	54.94	179.79	313.90	
95th-Percentile Queue Length [veh/ln]	9.57	0.02	10.76	3.96	11.59	18.37	
95th-Percentile Queue Length [ft/ln]	239.26	0.61	268.99	98.90	289.74	459.18	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	8.89	0.14	0.00	9.29	5.62	54.43	0.00	65.46	0.00	0.00	0.00
Movement LOS		A	A		A	A	D		E			
d_A, Approach Delay [s/veh]	6.92			7.60			61.06			0.00		
Approach LOS	A			A			E			A		
d_I, Intersection Delay [s/veh]	17.43											
Intersection LOS	B											
Intersection V/C	0.861											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	72.20	72.20
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.842	1.823
Crosswalk LOS	F	F	C	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	936	936	950	0
d_b, Bicycle Delay [s]	22.72	22.84	22.05	80.00
l_b,int, Bicycle LOS Score for Intersection	2.490	3.043	1.560	4.132
Bicycle LOS	B	C	A	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Willow Rd/Bay Rd

Control Type:	Signalized	Delay (sec / veh):	26.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.828

Intersection Setup

Name	Willow Rd		Willow Rd			
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	25.00	100.00	240.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Willow Rd		Willow Rd			
Base Volume Input [veh/h]	17	1088	1441	299	315	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	1088	1441	299	315	45
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	324	429	89	94	13
Total Analysis Volume [veh/h]	20	1295	1715	356	375	54
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		4		2	
v_ci, Inbound Pedestrian Volume crossing mi	0		2		4	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	9		19		6	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	160
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	50.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	5	2	6	0	4	0
Auxiliary Signal Groups						
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	9	10	8	0	10	0
Maximum Green [s]	16	36	36	0	38	0
Amber [s]	3.0	4.5	4.5	0.0	3.2	0.0
All red [s]	0.5	1.0	1.0	0.0	1.0	0.0
Split [s]	13	82	69	0	78	0
Vehicle Extension [s]	3.0	5.0	3.0	0.0	3.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	31	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	1.5	3.5	3.5	0.0	2.2	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	Yes	Yes		No	
Pedestrian Recall	No	No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	160	160	160	160	160	160
L, Total Lost Time per Cycle [s]	3.50	5.50	5.50	5.50	4.20	4.20
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.50	3.50	3.50	3.50	2.20	2.20
g_i, Effective Green Time [s]	5	111	102	102	40	40
g / C, Green / Cycle	0.03	0.69	0.64	0.64	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.01	0.40	0.54	0.26	0.23	0.04
s, saturation flow rate [veh/h]	1603	3204	3204	1380	1603	1406
c, Capacity [veh/h]	53	2215	2038	878	398	349
d1, Uniform Delay [s]	75.67	12.80	22.77	14.09	58.99	46.96
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.35	1.14	4.41	1.39	11.22	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.58	0.84	0.41	0.94	0.15
d, Delay for Lane Group [s/veh]	80.02	13.93	27.18	15.48	70.21	47.17
Lane Group LOS	F	B	C	B	E	D
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.87	11.89	25.77	6.64	16.17	1.73
50th-Percentile Queue Length [ft/ln]	21.78	297.27	644.26	165.98	404.36	43.30
95th-Percentile Queue Length [veh/ln]	1.57	17.55	34.10	10.86	22.77	3.12
95th-Percentile Queue Length [ft/ln]	39.20	438.66	852.40	271.62	569.25	77.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	80.02	13.93	27.18	15.48	70.21	47.17
Movement LOS	F	B	C	B	E	D
d_A, Approach Delay [s/veh]	14.94		25.17		67.31	
Approach LOS	B		C		E	
d_I, Intersection Delay [s/veh]	26.38					
Intersection LOS	C					
Intersection V/C	0.828					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	571.56
d_p, Pedestrian Delay [s]	0.00	0.00	69.38
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.229
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	956	794	923
d_b, Bicycle Delay [s]	21.89	29.38	23.29
l_b,int, Bicycle LOS Score for Intersection	2.644	3.268	1.560
Bicycle LOS	B	C	A

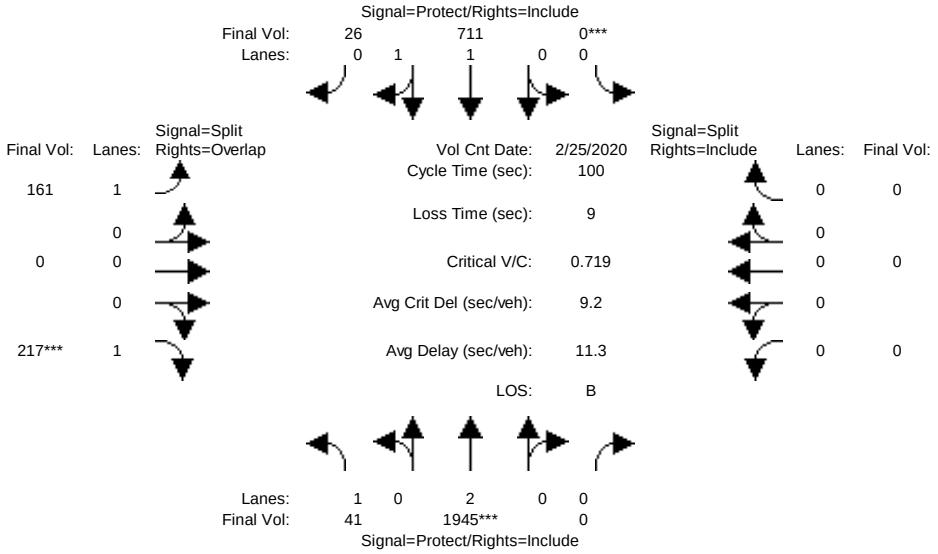
Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumuatlive PM

Intersection #2: University Avenue/O'Brien Drive



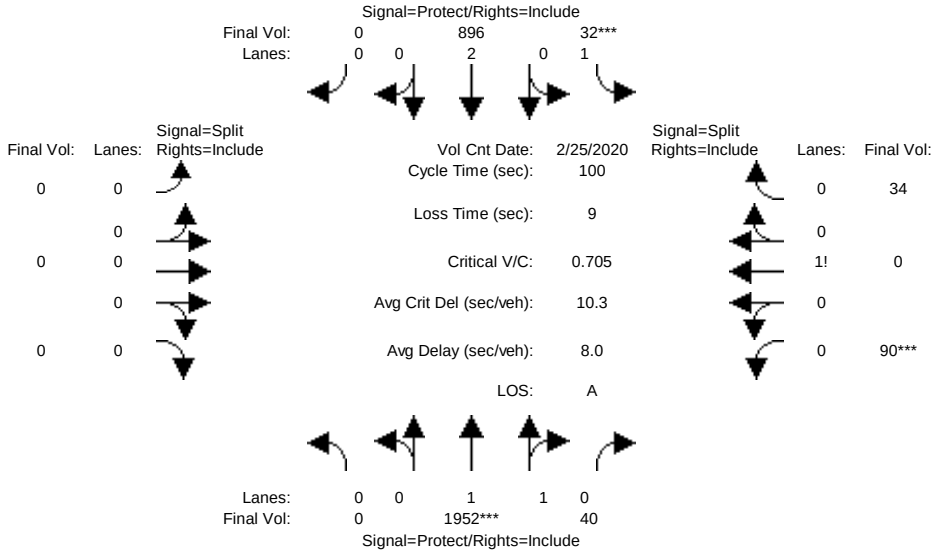
Street Name:	University Avenue						O'Brien Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	10	10	0	8	8	6	6	6	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	39	1828	0	0	668	24	151	0	204	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	1828	0	0	668	24	151	0	204	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	1828	0	0	668	24	151	0	204	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	41	1945	0	0	711	26	161	0	217	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	1945	0	0	711	26	161	0	217	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	1945	0	0	711	26	161	0	217	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.94	0.92	1.00	0.82	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.93	0.07	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3467	125	1745	0	1562	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.54	0.00	0.00	0.20	0.20	0.09	0.00	0.14	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.13	0.77	0.00	0.00	0.64	0.64	0.14	0.00	0.27	0.00	0.00	0.00
Volume/Cap:	0.18	0.70	0.00	0.00	0.32	0.32	0.65	0.00	0.52	0.00	0.00	0.00
Uniform Del:	39.1	5.8	0.0	0.0	8.0	8.0	40.6	0.0	31.2	0.0	0.0	0.0
IncremntDel:	0.4	0.8	0.0	0.0	0.1	0.1	6.1	0.0	1.2	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	39.5	6.6	0.0	0.0	8.1	8.1	46.7	0.0	32.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.5	6.6	0.0	0.0	8.1	8.1	46.7	0.0	32.4	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	D	A	C	A	A	A
HCM2kAvgQ:	27	389	0	0	130	130	146	0	154	0	0	0

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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Intersection #3: University Avenue/Notre Dame Avenue

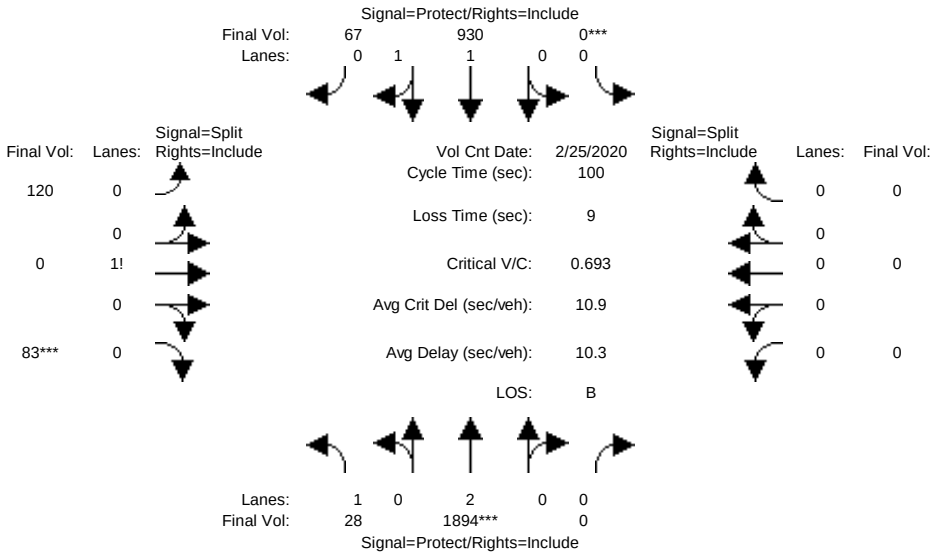


Street Name:	University Avenue						Notre Dame Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	8	8	4	8	0	0	0	0	4	4	4
Y+R:	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	0	1835	38	30	842	0	0	0	0	85	0	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1835	38	30	842	0	0	0	0	85	0	32
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1835	38	30	842	0	0	0	0	85	0	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	1952	40	32	896	0	0	0	0	90	0	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1952	40	32	896	0	0	0	0	90	0	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1952	40	32	896	0	0	0	0	90	0	34
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.94	0.95	0.95	1.00	1.00	1.00	1.00	0.93	1.00	0.93
Lanes:	0.00	1.96	0.04	1.00	2.00	0.00	0.00	0.00	0.00	0.73	0.00	0.27
Final Sat.:	0	3526	73	1805	3610	0	0	0	0	1283	0	483
Capacity Analysis Module:												
Vol/Sat:	0.00	0.55	0.55	0.02	0.25	0.00	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.77	0.77	0.04	0.81	0.00	0.00	0.00	0.00	0.10	0.00	0.10
Volume/Cap:	0.00	0.72	0.72	0.44	0.31	0.00	0.00	0.00	0.00	0.72	0.00	0.72
Uniform Del:	0.0	5.8	5.8	46.9	2.4	0.0	0.0	0.0	0.0	43.7	0.0	43.7
IncremntDel:	0.0	0.9	0.9	4.3	0.1	0.0	0.0	0.0	0.0	13.4	0.0	13.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	6.8	6.8	51.2	2.4	0.0	0.0	0.0	0.0	57.2	0.0	57.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.8	6.8	51.2	2.4	0.0	0.0	0.0	0.0	57.2	0.0	57.2
LOS by Move:	A	A	A	D	A	A	A	A	A	E	A	E
HCM2kAvgQ:	0	410	409	24	92	0	0	0	0	132	0	132

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumuatlive PM

Intersection #4: University Avenue/Kavanaugh Drive

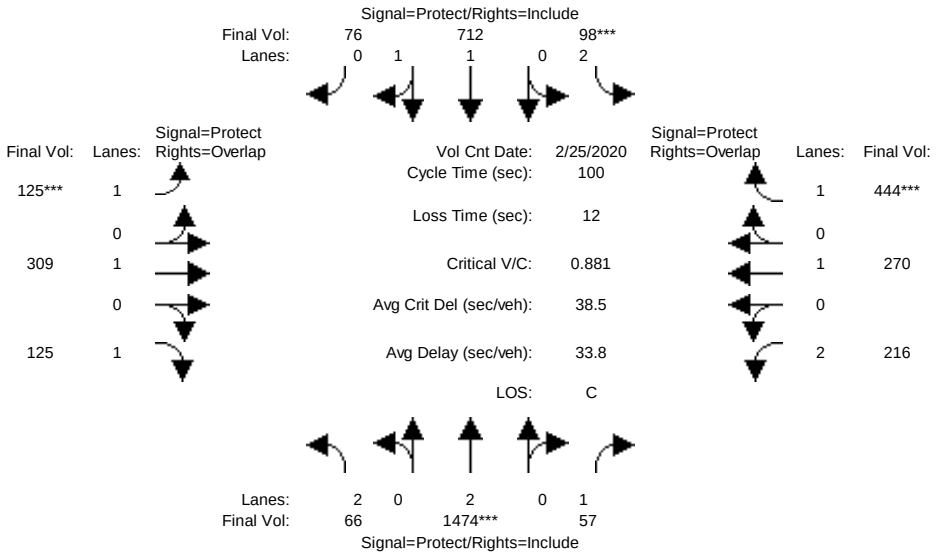


Street Name:	University Avenue						Kavanaugh Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	4	8	0	0	8	8	4	0	4	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	3.5	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	26	1761	0	0	865	62	112	0	77	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	1761	0	0	865	62	112	0	77	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	1761	0	0	865	62	112	0	77	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	28	1894	0	0	930	67	120	0	83	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	1894	0	0	930	67	120	0	83	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	1894	0	0	930	67	120	0	83	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.94	0.93	1.01	1.00	1.01	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.87	0.13	0.59	0.00	0.41	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3333	239	1136	0	781	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.52	0.00	0.00	0.28	0.28	0.11	0.00	0.11	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.09	0.76	0.00	0.00	0.66	0.66	0.15	0.00	0.15	0.00	0.00	0.00
Volume/Cap:	0.16	0.69	0.00	0.00	0.42	0.42	0.69	0.00	0.69	0.00	0.00	0.00
Uniform Del:	41.6	6.2	0.0	0.0	7.9	7.9	40.1	0.0	40.1	0.0	0.0	0.0
IncremntDel:	0.5	0.8	0.0	0.0	0.1	0.1	7.0	0.0	7.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	42.1	7.0	0.0	0.0	8.0	8.0	47.1	0.0	47.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.1	7.0	0.0	0.0	8.0	8.0	47.1	0.0	47.1	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	23	408	0	0	185	184	182	0	182	0	0	0

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumuatlive PM

Intersection #5: University Avenue/Bay Road

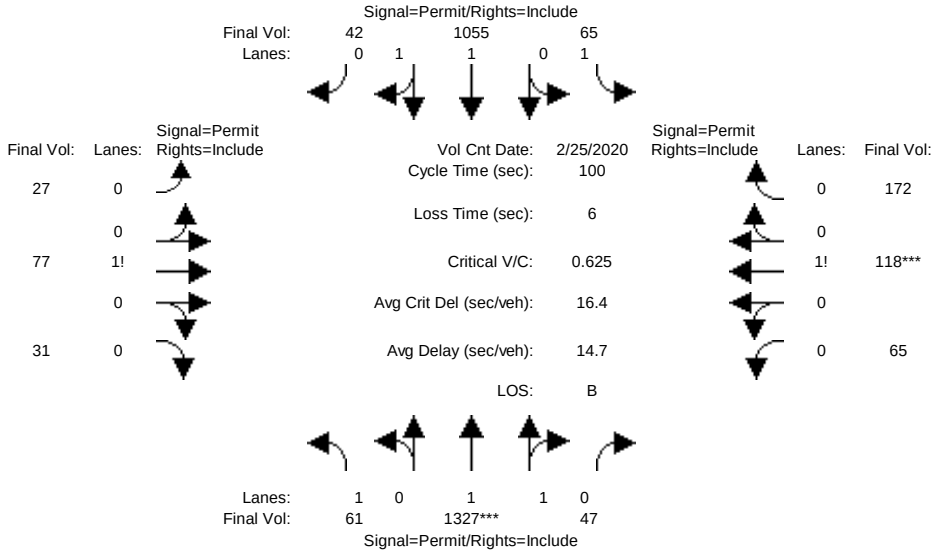


Street Name:	University Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	60	1341	52	89	648	69	114	281	114	197	246	404
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	1341	52	89	648	69	114	281	114	197	246	404
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1341	52	89	648	69	114	281	114	197	246	404
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	66	1474	57	98	712	76	125	309	125	216	270	444
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	1474	57	98	712	76	125	309	125	216	270	444
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	66	1474	57	98	712	76	125	309	125	216	270	444
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.75	0.92	0.94	0.93	0.95	1.00	0.78	0.92	1.00	0.78
Lanes:	2.00	2.00	1.00	2.00	1.81	0.19	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3502	3610	1417	3502	3214	342	1805	1900	1487	3502	1900	1491
Capacity Analysis Module:												
Vol/Sat:	0.02	0.41	0.04	0.03	0.22	0.22	0.07	0.16	0.08	0.06	0.14	0.30
Crit Moves:		****		****			****					****
Green/Cycle:	0.08	0.47	0.47	0.04	0.43	0.43	0.08	0.27	0.35	0.10	0.29	0.33
Volume/Cap:	0.24	0.88	0.09	0.70	0.52	0.52	0.88	0.60	0.24	0.60	0.48	0.89
Uniform Del:	43.4	24.1	14.8	47.4	21.0	21.0	45.5	31.7	23.2	42.9	29.0	31.5
IncremntDel:	0.5	5.5	0.1	14.4	0.3	0.3	40.9	2.0	0.2	2.8	0.7	17.8
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	43.8	29.6	14.9	61.8	21.3	21.3	86.5	33.7	23.4	45.7	29.7	49.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.8	29.6	14.9	61.8	21.3	21.3	86.5	33.7	23.4	45.7	29.7	49.3
LOS by Move:	D	C	B	E	C	C	F	C	C	D	C	D
HCM2kAvgQ:	24	559	23	72	238	235	161	222	70	107	177	412

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumuatlive PM

Intersection #6: University Avenue/Runnymede Street

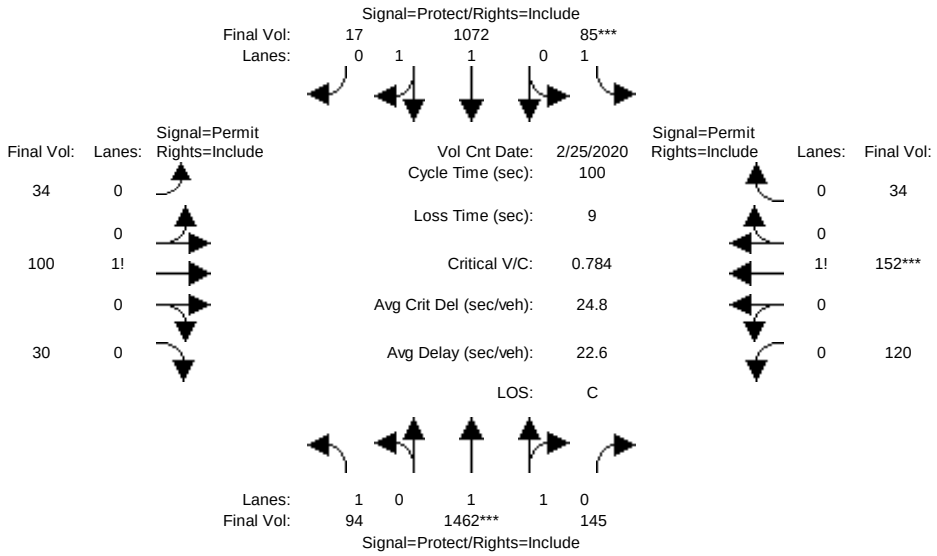


Street Name:	University Avenue						Runnymede Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	8	8	8	8	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	54	1168	41	57	928	37	24	68	27	57	104	151
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	1168	41	57	928	37	24	68	27	57	104	151
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	1168	41	57	928	37	24	68	27	57	104	151
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	61	1327	47	65	1055	42	27	77	31	65	118	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	1327	47	65	1055	42	27	77	31	65	118	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	61	1327	47	65	1055	42	27	77	31	65	118	172
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.19	0.95	0.94	0.12	0.94	0.94	0.88	0.99	0.87	0.86	1.03	0.86
Lanes:	1.00	1.93	0.07	1.00	1.92	0.08	0.22	0.54	0.24	0.19	0.29	0.52
Final Sat.:	370	3470	122	234	3451	138	360	1019	405	315	575	835
Capacity Analysis Module:												
Vol/Sat:	0.17	0.38	0.38	0.28	0.31	0.31	0.08	0.08	0.08	0.21	0.21	0.21
Crit Moves:		****									****	
Green/Cycle:	0.61	0.61	0.61	0.61	0.61	0.61	0.33	0.33	0.33	0.33	0.33	0.33
Volume/Cap:	0.27	0.63	0.63	0.45	0.50	0.50	0.23	0.23	0.23	0.63	0.63	0.63
Uniform Del:	9.0	12.2	12.2	10.4	10.9	10.9	24.4	24.4	24.4	28.4	28.4	28.4
IncremntDel:	0.6	0.6	0.6	2.3	0.2	0.2	0.2	0.2	0.2	2.2	2.2	2.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	9.7	12.8	12.8	12.7	11.0	11.0	24.6	24.6	24.6	30.6	30.6	30.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	12.8	12.8	12.7	11.0	11.0	24.6	24.6	24.6	30.6	30.6	30.6
LOS by Move:	A	B	B	B	B	B	C	C	C	C	C	C
HCM2kAvgQ:	21	333	333	28	241	241	71	80	71	236	276	235

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumuatlive PM

Intersection #7: University Avenue/Bell Street



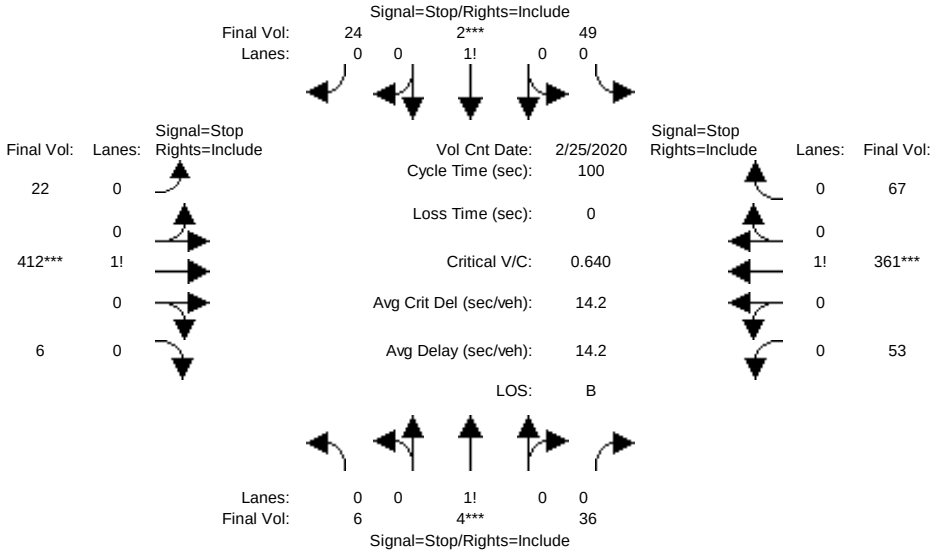
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	81	1257	125	73	922	15	29	86	26	103	131	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	1257	125	73	922	15	29	86	26	103	131	29
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	81	1257	125	73	922	15	29	86	26	103	131	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	94	1462	145	85	1072	17	34	100	30	120	152	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	1462	145	85	1072	17	34	100	30	120	152	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	94	1462	145	85	1072	17	34	100	30	120	152	34
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.95	0.87	0.87	0.86	0.75	0.75	0.75
Lanes:	1.00	1.82	0.18	1.00	1.97	0.03	0.21	0.61	0.18	0.39	0.50	0.11
Final Sat.:	1805	3240	322	1805	3545	58	339	1004	304	556	707	157
Capacity Analysis Module:												
Vol/Sat:	0.05	0.45	0.45	0.05	0.30	0.30	0.10	0.10	0.10	0.22	0.22	0.22
Crit Moves:		****		****							****	
Green/Cycle:	0.09	0.58	0.58	0.06	0.54	0.54	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.56	0.78	0.78	0.78	0.56	0.56	0.36	0.36	0.36	0.78	0.78	0.78
Uniform Del:	43.3	16.4	16.4	46.4	15.0	15.0	29.2	29.2	29.2	33.5	33.5	33.5
IncremntDel:	4.1	2.1	2.1	30.3	0.4	0.4	0.5	0.5	0.5	10.0	10.0	10.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	47.5	18.5	18.5	76.6	15.4	15.4	29.7	29.7	29.7	43.5	43.5	43.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.5	18.5	18.5	76.6	15.4	15.4	29.7	29.7	29.7	43.5	43.5	43.5
LOS by Move:	D	B	B	E	B	B	C	C	C	D	D	D
HCM2kAvgQ:	91	536	535	71	281	281	106	106	105	267	268	267

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumuatlive PM

Intersection #14: Bay Road/Newbridge Street/Ralmar Avenue



Street Name:	Bay Road/Ralmar Avenue						Bay Road/Newbridge Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 5:00PM												
Base Vol:	5	3	30	41	2	20	18	342	5	44	300	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	3	30	41	2	20	18	342	5	44	300	56
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	3	30	41	2	20	18	342	5	44	300	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
PHF Volume:	6	4	36	49	2	24	22	412	6	53	361	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	4	36	49	2	24	22	412	6	53	361	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	4	36	49	2	24	22	412	6	53	361	67
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.13	0.08	0.79	0.65	0.03	0.32	0.05	0.94	0.01	0.11	0.75	0.14
Final Sat.:	72	43	432	348	17	170	36	689	10	83	565	105
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.14	0.14	0.14	0.60	0.60	0.60	0.64	0.64	0.64
Crit Moves:		****			****			****			****	
Delay/Veh:	9.0	9.0	9.0	9.8	9.8	9.8	14.4	14.4	14.4	15.3	15.3	15.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.0	9.0	9.0	9.8	9.8	9.8	14.4	14.4	14.4	15.3	15.3	15.3
LOS by Move:	A	A	A	A	A	A	B	B	B	C	C	C
ApproachDel:		9.0			9.8			14.4			15.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.0			9.8			14.4			15.3	
LOS by Appr:		A			A			B			C	
AllWayAvgQ:	1.6	1.6	1.6	3.1	3.1	3.1	33.5	33.5	33.5	39.8	39.8	39.8

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #14 Bay Road/Newbridge Street/Ralmar Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Initial Vol:	5	3	30	41	2	20	18	342	5	44	300	56

Major Street Volume: 765
Minor Approach Volume: 63
Minor Approach Volume Threshold: 291

SIGNAL WARRANT DISCLAIMER

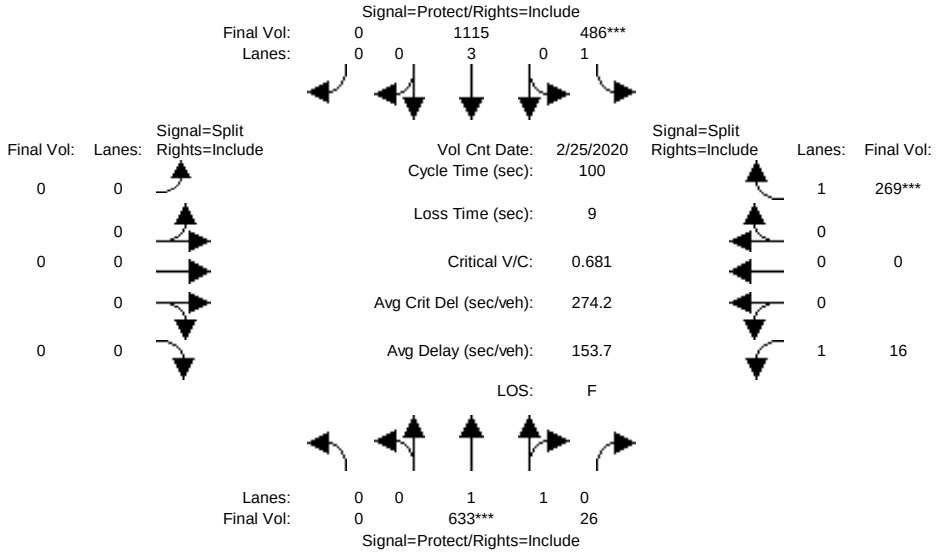
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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Intersection #17: Donohoe Street/E Bayshore Road

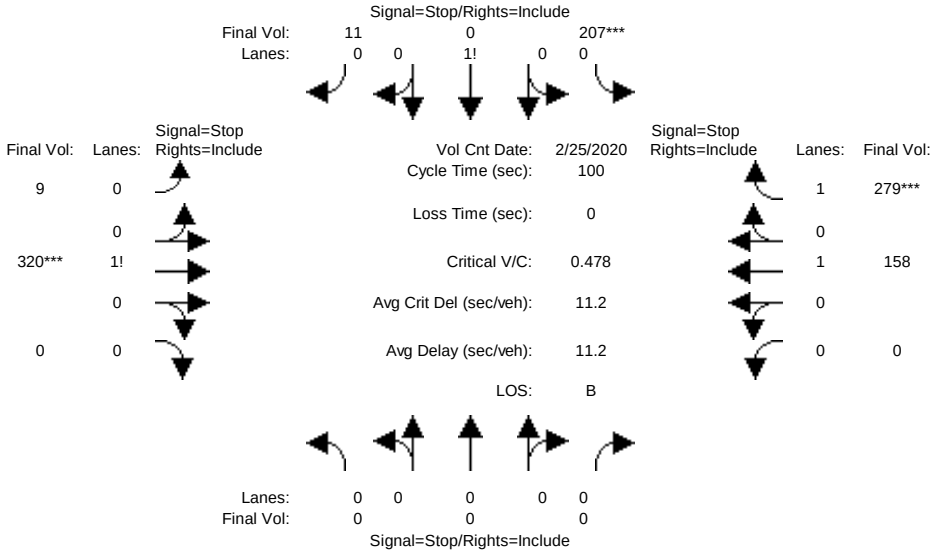


Street Name:	Donohoe Street/E Bayshore Road						Donohoe Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	71	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	0	601	25	462	1059	0	0	0	0	15	0	256
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	601	25	462	1059	0	0	0	0	15	0	256
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	601	25	462	1059	0	0	0	0	15	0	256
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	633	26	486	1115	0	0	0	0	16	0	269
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	633	26	486	1115	0	0	0	0	16	0	269
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	633	26	486	1115	0	0	0	0	16	0	269
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.95	0.91	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.92	0.08	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3444	143	1805	5187	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.18	0.27	0.21	0.00	0.00	0.00	0.00	0.01	0.00	0.17
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.10	0.10	0.71	0.81	0.00	0.00	0.00	0.00	0.10	0.00	0.10
Volume/Cap:	0.00	1.84	1.84	0.38	0.27	0.00	0.00	0.00	0.00	0.09	0.00	1.67
Uniform Del:	0.0	45.0	45.0	5.8	2.3	0.0	0.0	0.0	0.0	40.9	0.0	45.0
IncremntDel:	0.0	387	387.3	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	326.5
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	432	432.3	5.9	2.3	0.0	0.0	0.0	0.0	41.1	0.0	371.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	432	432.3	5.9	2.3	0.0	0.0	0.0	0.0	41.1	0.0	371.5
LOS by Move:	A	F	F	A	A	A	A	A	A	D	A	F
HCM2kAvgQ:	0	785	779	149	78	0	0	0	0	12	0	578

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumuatlive PM

Intersection #19: Woodland Avenue/Manhattan Avenue




```
Street Name:         Manhattan Avenue                Woodland Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM
Base Vol:       0    0     0   186    0    10     8  288     0     0  142   251
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0   186    0    10     8  288     0     0  142   251
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0   186    0    10     8  288     0     0  142   251
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.90 0.90  0.90  0.90 0.90  0.90  0.90 0.90  0.90  0.90 0.90  0.90
PHF Volume:     0    0     0   207    0    11     9  320     0     0  158   279
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   207    0    11     9  320     0     0  158   279
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0    0     0   207    0    11     9  320     0     0  158   279
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.00 0.00  0.00  0.95 0.00  0.05  0.03 0.97  0.00  0.00 1.00  1.00
Final Sat.:     0    0     0   569    0    31    19  669     0     0  644   736
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx xxxx  xxxx  0.36 xxxx  0.36  0.48 0.48  xxxx  xxxx 0.25  0.38
Crit Moves:                   ****                ****                     ****
Delay/Veh:    0.0  0.0   0.0  11.6  0.0  11.6  12.5 12.5   0.0   0.0  9.9  10.2
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  11.6  0.0  11.6  12.5 12.5   0.0   0.0  9.9  10.2
LOS by Move:    *    *     *     B    *     B     B    B     *     *    A     B
ApproachDel:    xxxxxx           11.6            12.5            10.1
Delay Adj:       xxxxx           1.00            1.00            1.00
ApprAdjDel:     xxxxxx           11.6            12.5            10.1
LOS by Appr:         *              B               B               B
AllWayAvgQ:   0.0  0.0   0.0  12.1 12.1  12.1  20.9 20.9  20.9   0.0  7.6  14.1
Note: Queue reported is the distance per lane in feet.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #19 Woodland Avenue/Manhattan Avenue
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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	0	0	0	1!	0	0	1	0	0	1
Initial Vol:	0	0	0	186	0	10	8	288	0	0	142	251

Major Street Volume: 689
Minor Approach Volume: 196
Minor Approach Volume Threshold: 413

SIGNAL WARRANT DISCLAIMER

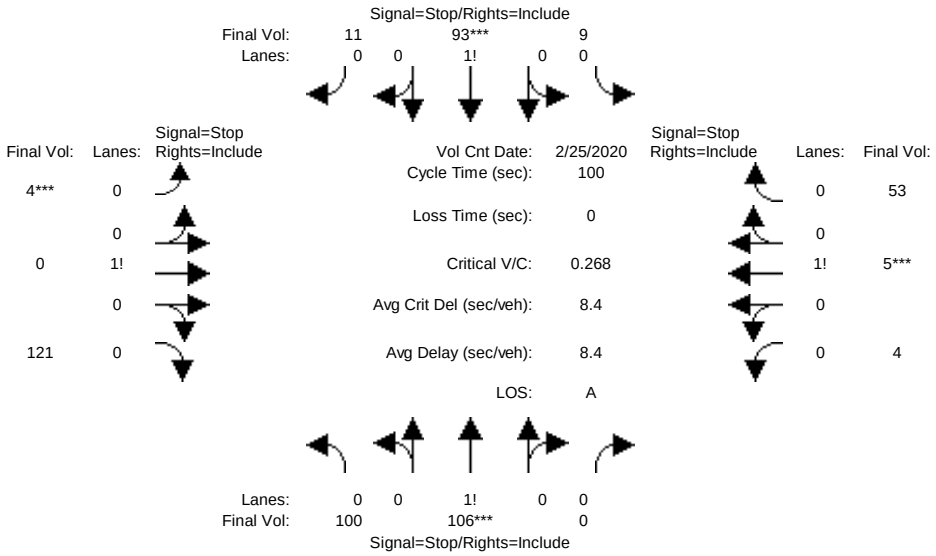
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumuatlive PM

Intersection #20: O'Conner Street/Manhattan Avenue




```
Street Name:         Manhattan Avenue                 O'Conner Street
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM
Base Vol:      94  100     0     8   87    10     4    0   114     4    5    50
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   94  100     0     8   87    10     4    0   114     4    5    50
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   94  100     0     8   87    10     4    0   114     4    5    50
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.94 0.94  0.94  0.94 0.94  0.94  0.94 0.94  0.94  0.94 0.94  0.94
PHF Volume:   100  106     0     9   93    11     4    0   121     4    5    53
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  100  106     0     9   93    11     4    0   121     4    5    53
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  100  106     0     9   93    11     4    0   121     4    5    53
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.48 0.52  0.00  0.08 0.83  0.09  0.03 0.00  0.97  0.07 0.08  0.85
Final Sat.:   374  398     0    59  637    73    28    0   793    53   67   666
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.27 0.27  xxxx  0.15 0.15  0.15  0.15 xxxx  0.15  0.08 0.08  0.08
Crit Moves:       ****             ****        ****                    ****
Delay/Veh:    9.1  9.1   0.0   8.2  8.2   8.2   7.8  0.0   7.8   7.6  7.6   7.6
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   9.1  9.1   0.0   8.2  8.2   8.2   7.8  0.0   7.8   7.6  7.6   7.6
LOS by Move:    A    A     *     A    A     A     A    *     A     A    A     A
ApproachDel:        9.1              8.2              7.8              7.6
Delay Adj:         1.00             1.00             1.00             1.00
ApprAdjDel:         9.1              8.2              7.8              7.6
LOS by Appr:          A                A                A                A
AllWayAvgQ:   8.4  8.4   8.4   3.8  3.8   3.8   3.9  3.9   3.9   1.9  1.9   1.9
Note: Queue reported is the distance per lane in feet.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #20 O'Conner Street/Manhattan Avenue
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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 1	0	0 0	0	0 1!	0 0	0	0 1!	0 0	0	0 1!	0 0
Initial Vol:	94	100	0	8	87	10	4	0	114	4	5	50

Major Street Volume: 299
Minor Approach Volume: 118
Minor Approach Volume Threshold: 541

SIGNAL WARRANT DISCLAIMER

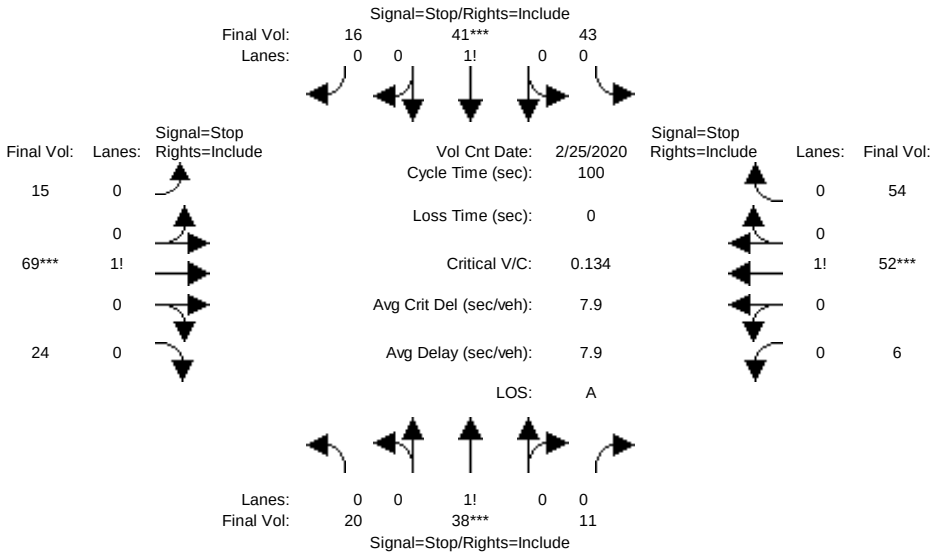
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumuatlive PM

Intersection #21: O'Conner Street/Euclid Avenue



Street Name:	Euclid Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	19	36	10	40	39	15	14	65	23	6	49	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	36	10	40	39	15	14	65	23	6	49	51
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	36	10	40	39	15	14	65	23	6	49	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	20	38	11	43	41	16	15	69	24	6	52	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	38	11	43	41	16	15	69	24	6	52	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	38	11	43	41	16	15	69	24	6	52	54
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.29	0.56	0.15	0.43	0.41	0.16	0.14	0.64	0.22	0.06	0.46	0.48
Final Sat.:	226	428	119	331	323	124	111	516	183	48	389	405
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Crit Moves:		****			****			****			****	
Delay/Veh:	7.9	7.9	7.9	8.0	8.0	8.0	7.9	7.9	7.9	7.7	7.7	7.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.9	7.9	7.9	8.0	8.0	8.0	7.9	7.9	7.9	7.7	7.7	7.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		7.9			8.0			7.9			7.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		7.9			8.0			7.9			7.7	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	2.2	2.2	2.2	3.4	3.4	3.4	3.6	3.6	3.6	3.5	3.5	3.5

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #21 O'Conner Street/Euclid Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Initial Vol:	19	36	10	40	39	15	14	65	23	6	49	51

Major Street Volume: 208
Minor Approach Volume: 94
Minor Approach Volume Threshold: 638

SIGNAL WARRANT DISCLAIMER

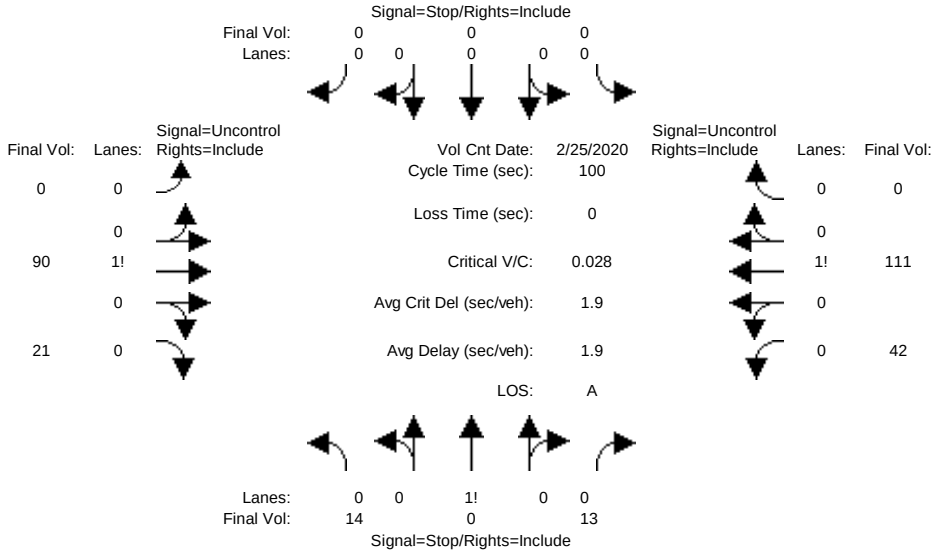
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumuatlive PM

Intersection #22: W Bayshore Road/Euclid Avenue



Street Name:	Euclid Avenue						W Bayshore Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 25 Feb 2020 << 4:30PM												
Base Vol:	13	0	12	0	0	0	0	86	20	40	107	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	0	12	0	0	0	0	86	20	40	107	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	0	12	0	0	0	0	86	20	40	107	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	14	0	13	0	0	0	0	90	21	42	111	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	14	0	13	0	0	0	0	90	21	42	111	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	297	295	100	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	110	xxxx	xxxxx
Potent Cap.:	699	620	961	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1492	xxxx	xxxxx
Move Cap.:	682	602	961	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1492	xxxx	xxxxx
Volume/Cap:	0.02	0.00	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT
Shared Cap.:	xxxx	793	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	9.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:		9.7		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		A		*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

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Intersection #22 W Bayshore Road/Euclid Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	13	0	12	0	0	0	0	86	20	40	107	0
ApproachDel:	9.7			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=25]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=278]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #22 W Bayshore Road/Euclid Avenue

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	13	0	12	0	0	0	0	86	20	40	107	0

Major Street Volume: 253
Minor Approach Volume: 25
Minor Approach Volume Threshold: 586

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.8	0.2	0.7
Total Delay (hr)	0.6	1.5	0.5	4.8	12.2	1.6	17.7	7.1	3.7	2.1	23.3	2.4
Total Del/Veh (s)	82.7	38.6	8.7	44.0	68.5	11.8	223.1	49.5	22.1	90.3	94.8	42.3
Avg Speed (mph)	3	5	12	4	3	10	1	4	7	10	10	15
Vehicles Entered	26	136	197	380	624	480	273	511	603	79	863	198

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.1
Total Delay (hr)	77.4
Total Del/Veh (s)	62.4
Avg Speed (mph)	7
Vehicles Entered	4370

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	7.8	22.8	0.2	0.0	0.0	0.0	30.8
Denied Del/Veh (s)	84.0	79.8	0.7	0.3	0.0	0.0	26.0
Total Delay (hr)	52.0	221.5	19.6	0.5	8.5	2.1	304.3
Total Del/Veh (s)	608.1	815.4	72.5	8.7	40.3	7.5	258.2
Avg Speed (mph)	4	3	3	12	10	19	4
Vehicles Entered	289	898	952	188	746	1018	4091

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.3	3.6	119.2	0.8	0.0	0.0	0.0
Denied Del/Veh (s)	1.9	0.0	1.5	0.9	1.0	3.6	500.9	467.5	425.3	0.0	0.0	0.0
Total Delay (hr)	14.5	1.8	1.3	0.2	1.0	4.2	4.2	157.5	1.1	3.4	3.8	0.5
Total Del/Veh (s)	134.7	119.4	105.2	56.1	66.5	46.2	887.6	900.1	955.5	63.5	19.0	5.4
Avg Speed (mph)	1	1	1	6	5	7	2	2	2	4	10	15
Vehicles Entered	372	52	43	10	53	326	15	558	4	190	709	336

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	124.2
Denied Del/Veh (s)	147.0
Total Delay (hr)	193.4
Total Del/Veh (s)	251.1
Avg Speed (mph)	3
Vehicles Entered	2668

15: NB US 101 On-ramp/Private Dwy & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.0	0.3	0.2	0.0	0.0	0.0	0.2	0.2	0.2	0.1
Total Delay (hr)	0.1	1.7	0.3	7.0	0.9	0.0	0.7	0.6	0.4	11.7
Total Del/Veh (s)	60.4	20.2	9.5	53.2	5.1	4.1	50.6	52.7	31.6	25.3
Avg Speed (mph)	4	9	13	4	16	15	3	3	4	7
Vehicles Entered	3	309	108	469	613	19	48	42	43	1654

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	69.6	1.2	112.7	3.0	90.7	0.2	0.7	278.1
Denied Del/Veh (s)	0.0	228.0	243.2	420.8	427.1	409.9	69.9	36.9	263.4
Total Delay (hr)	4.3	150.9	2.1	37.8	0.8	29.5	0.1	2.2	227.6
Total Del/Veh (s)	18.5	588.5	495.7	177.3	146.4	165.9	61.1	114.6	250.7
Avg Speed (mph)	8	2	3	3	4	4	2	1	3
Vehicles Entered	822	870	14	726	18	602	8	68	3128

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	124.8	9.1	134.1
Denied Del/Veh (s)	2.0	1.1	0.0	0.0	1399.3	1566.2	395.9
Total Delay (hr)	0.7	23.2	1.0	0.1	43.1	2.4	70.4
Total Del/Veh (s)	163.1	178.4	11.1	3.4	1846.7	1694.5	258.2
Avg Speed (mph)	5	5	7	11	0	0	2
Vehicles Entered	16	455	319	87	51	2	930

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.6	0.1	0.0	0.7
Denied Del/Veh (s)	0.3	1.5	1.8	0.0	0.8
Total Delay (hr)	0.8	45.6	6.7	1.1	54.2
Total Del/Veh (s)	8.6	115.2	114.6	2.6	57.2
Avg Speed (mph)	11	5	5	18	6
Vehicles Entered	328	1381	205	1443	3357

Total Network Performance

Denied Delay (hr)	568.1
Denied Del/Veh (s)	236.9
Total Delay (hr)	949.4
Total Del/Veh (s)	432.9
Avg Speed (mph)	6
Vehicles Entered	7121

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	77	173	124	225	312	317	313	225	250	348	338	175
Average Queue (ft)	22	67	41	196	288	277	196	221	247	316	280	169
95th Queue (ft)	58	146	87	313	305	308	350	239	262	347	368	200
Link Distance (ft)		313	313		266	266	266			282	282	
Upstream Blk Time (%)					46	35	16			60	16	
Queuing Penalty (veh)					325	251	117			673	177	
Storage Bay Dist (ft)	200			175				200	200			125
Storage Blk Time (%)		0		14	65			42	77	13	29	26
Queuing Penalty (veh)		0		98	180			173	315	57	285	105

Intersection: 8: University Avenue & Donohoe Street

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	300	876	878	300
Average Queue (ft)	146	482	490	212
95th Queue (ft)	342	858	874	403
Link Distance (ft)		2340	2340	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250			250
Storage Blk Time (%)	0	45	43	0
Queuing Penalty (veh)	0	37	85	0

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	5370	5369	250	383	390	314	92	250	274	524	465
Average Queue (ft)	3705	3831	249	361	364	62	35	192	206	156	140
95th Queue (ft)	6232	6112	255	383	388	196	79	273	286	411	341
Link Distance (ft)	5324	5324		355	355	355				939	939
Upstream Blk Time (%)	30	30		21	25	1					
Queuing Penalty (veh)	0	0		130	155	7					
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		79	83			0		3	7	0	
Queuing Penalty (veh)		406	572			0		14	41	2	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	219	218	218	462	76	224	4549	290	256	255	258	206
Average Queue (ft)	183	180	180	244	73	39	3871	288	145	136	136	72
95th Queue (ft)	205	202	202	428	81	170	5756	301	227	221	214	146
Link Distance (ft)	165	165	165	645			4497		355	355	355	355
Upstream Blk Time (%)	77	72	72				66		0	0	0	0
Queuing Penalty (veh)	200	187	186				0		1	1	0	0
Storage Bay Dist (ft)					25	175		240				
Storage Blk Time (%)				41	68		84	84				
Queuing Penalty (veh)				137	42		408	400				

Intersection: 15: NB US 101 On-ramp/Private Dwy & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	R	L	T	TR	LTR
Maximum Queue (ft)	42	241	105	350	343	357	209
Average Queue (ft)	3	134	41	308	152	133	96
95th Queue (ft)	23	229	85	401	367	329	169
Link Distance (ft)		429	429	313	313	313	238
Upstream Blk Time (%)				28	3	2	0
Queuing Penalty (veh)				142	15	10	0
Storage Bay Dist (ft)	60						
Storage Blk Time (%)	0	26					
Queuing Penalty (veh)	0	1					

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	T	T	T	T	TR	L	L	T	R	L	R
Maximum Queue (ft)	242	252	2756	2758	295	525	1080	1096	250	44	161
Average Queue (ft)	135	153	1937	1935	256	460	1040	1057	230	8	81
95th Queue (ft)	205	227	3299	3288	396	617	1204	1120	335	32	183
Link Distance (ft)	266	266	2722	2722			1046	1046		230	230
Upstream Blk Time (%)	0	0	38	37			35	63			10
Queuing Penalty (veh)	0	0	0	0			0	0			0
Storage Bay Dist (ft)					245	475			200		
Storage Blk Time (%)				74	19	32	41	0	65		
Queuing Penalty (veh)				289	68	154	196	0	18		

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	250	1227	150	179	123	545	534
Average Queue (ft)	206	577	49	83	30	510	512
95th Queue (ft)	300	1346	115	146	92	593	588
Link Distance (ft)		1588	165	165		521	521
Upstream Blk Time (%)		3	0	0		84	93
Queuing Penalty (veh)		0	0	1		0	0
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	30	48		10	0		
Queuing Penalty (veh)	70	120		5	0		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	196	981	977	30	85
Average Queue (ft)	86	929	936	1	12
95th Queue (ft)	162	1023	1020	26	48
Link Distance (ft)	314	939	939	282	282
Upstream Blk Time (%)		13	19		
Queuing Penalty (veh)		167	241		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 7264

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	University Ave/Bayfront Expy	Signalized	HCM 6th Edition	NB Left	0.970	37.9	D
11	Willow Rd/NB US-101 Ramps	Signalized	HCM 6th Edition	SB Thru	0.953	30.8	C
12	Willow Rd/SB US-101 Ramps	Signalized	HCM 6th Edition	EB Left	0.632	18.1	B
13	Willow Rd/Bay Rd	Signalized	HCM 6th Edition	NB Left	0.930	34.4	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: University Ave/Bayfront Expy

Control Type:	Signalized	Delay (sec / veh):	37.9
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.970

Intersection Setup

Name	University Ave		Bayfront Expy		Bayfront Expy	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	2	0	1	2	0
Entry Pocket Length [ft]	175.00	1260.00	100.00	430.00	830.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	University Ave		Bayfront Expy		Bayfront Expy	
Base Volume Input [veh/h]	193	547	1212	166	1907	4469
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	193	547	1212	166	1907	4469
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	48	137	303	42	477	1117
Total Analysis Volume [veh/h]	193	547	1212	166	1907	4469
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	1		0		1	
v_di, Inbound Pedestrian Volume crossing m	1		0		1	
v_co, Outbound Pedestrian Volume crossing	1		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		9		16	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	240
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	113.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Split	Overlap	Permissive	Permissive	Protected	Permissive
Signal Group	4	4	6	0	5	2
Auxiliary Signal Groups		4,5				
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	12	12	10	0	11	10
Maximum Green [s]	15	15	60	0	100	135
Amber [s]	3.0	3.0	5.0	0.0	3.0	5.4
All red [s]	1.0	1.0	1.0	0.0	0.5	0.5
Split [s]	47	47	65	0	128	193
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	5	5	5	0	0	10
Pedestrian Clearance [s]	29	29	35	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	4.0	0.0	1.5	3.9
Minimum Recall	No	No	Yes		No	Yes
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	240	240	240	240	240	240
L, Total Lost Time per Cycle [s]	4.00	3.50	6.00	6.00	3.50	5.90
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	0.00	4.00	4.00	1.50	3.90
g_i, Effective Green Time [s]	15	172	59	59	153	215
g / C, Green / Cycle	0.06	0.72	0.24	0.24	0.64	0.90
(v / s)_i Volume / Saturation Flow Rate	0.06	0.13	0.24	0.11	0.55	0.88
s, saturation flow rate [veh/h]	3459	4220	5094	1557	3459	5094
c, Capacity [veh/h]	220	3023	1243	380	2200	4560
d1, Uniform Delay [s]	111.40	11.08	89.96	76.55	35.39	10.75
k, delay calibration	0.04	0.04	0.04	0.04	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.36	0.01	3.47	0.29	4.92	9.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.18	0.98	0.44	0.87	0.98
d, Delay for Lane Group [s/veh]	115.75	11.09	93.44	76.85	40.31	20.21
Lane Group LOS	F	B	F	E	D	C
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.19	3.31	25.10	8.67	45.01	42.84
50th-Percentile Queue Length [ft/ln]	154.84	82.82	627.45	216.66	1125.33	1071.12
95th-Percentile Queue Length [veh/ln]	10.28	5.96	33.31	13.49	56.02	53.58
95th-Percentile Queue Length [ft/ln]	256.88	149.08	832.85	337.36	1400.40	1339.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	115.75	11.09	93.44	76.85	40.31	20.21
Movement LOS	F	B	F	E	D	C
d_A, Approach Delay [s/veh]	38.39		91.44		26.22	
Approach LOS	D		F		C	
d_I, Intersection Delay [s/veh]	37.86					
Intersection LOS	D					
Intersection V/C	0.970					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	1609.34	0.00	0.00
d_p, Pedestrian Delay [s]	111.17	0.00	111.17
l_p,int, Pedestrian LOS Score for Intersection	3.097	0.000	4.424
Crosswalk LOS	C	F	E
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	358	492	1559
d_b, Bicycle Delay [s]	80.85	68.56	5.88
l_b,int, Bicycle LOS Score for Intersection	1.560	2.318	5.066
Bicycle LOS	A	B	F

Sequence

Ring 1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Willow Rd/NB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	30.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.953

Intersection Setup

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	405.00	100.00	100.00	100.00	175.00	100.00	195.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Base Volume Input [veh/h]	0	1560	514	0	2471	838	0	0	0	609	0	1124
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1560	514	0	2471	838	0	0	0	609	0	1124
Peak Hour Factor	1.0000	0.9700	0.9700	1.0000	0.9700	0.9700	1.0000	1.0000	1.0000	0.9700	1.0000	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	402	132	0	637	216	0	0	0	157	0	290
Total Analysis Volume [veh/h]	0	1608	530	0	2547	864	0	0	0	628	0	1159
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	3			0			0			7		
v_ci, Inbound Pedestrian Volume crossing mi	7			0			0			3		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	24			16			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	38.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	0	0	0	3	0	3
Auxiliary Signal Groups			3,6			2,3						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	4	4	0	4	4	0	0	0	4	0	4
Maximum Green [s]	0	35	35	0	35	35	0	0	0	24	0	24
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	0.0	0.0	0.0	3.0	0.0	3.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0
Split [s]	0	75	75	0	75	75	0	0	0	65	0	65
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	30	30	0	7	7	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No					No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	0.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall		Yes	Yes		Yes	Yes				No		
Maximum Recall		No	No		No	No				No		
Pedestrian Recall		No	No		No	No				No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R		L	R
C, Cycle Length [s]	140	140	140	140		140	140
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00		5.00	5.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00		3.00	3.00
g_i, Effective Green Time [s]	72	135	72	135		59	59
g / C, Green / Cycle	0.51	0.96	0.51	0.96		0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.32	0.34	0.50	0.56		0.18	0.41
s, saturation flow rate [veh/h]	5094	1564	5094	1548		3459	2813
c, Capacity [veh/h]	2622	1507	2622	1493		1453	1182
d1, Uniform Delay [s]	24.08	0.13	32.96	0.20		28.75	40.01
k, delay calibration	0.50	0.27	0.50	0.50		0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	1.08	0.35	12.03	1.64		0.08	4.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.61	0.35	0.97	0.58		0.43	0.98
d, Delay for Lane Group [s/veh]	25.17	0.49	45.00	1.84		28.83	44.15
Lane Group LOS	C	A	D	A		C	D
Critical Lane Group	No	No	Yes	No		No	Yes
50th-Percentile Queue Length [veh/ln]	12.61	0.15	29.69	0.68		7.47	19.83
50th-Percentile Queue Length [ft/ln]	315.24	3.69	742.23	17.03		186.76	495.71
95th-Percentile Queue Length [veh/ln]	18.43	0.27	38.63	1.23		11.95	27.13
95th-Percentile Queue Length [ft/ln]	460.83	6.65	965.63	30.66		298.82	678.28

Movement, Approach, & Intersection Results

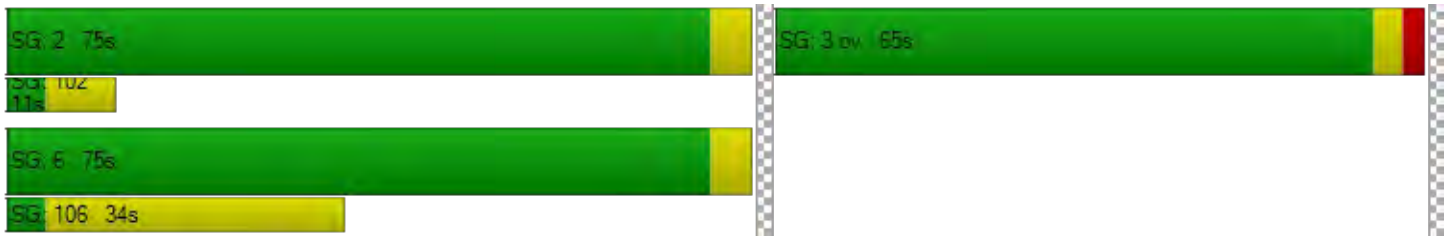
d_M, Delay for Movement [s/veh]	0.00	25.17	0.49	0.00	45.00	1.84	0.00	0.00	0.00	28.83	0.00	44.15
Movement LOS		C	A		D	A				C		D
d_A, Approach Delay [s/veh]	19.05			34.07			0.00			38.76		
Approach LOS	B			C			A			D		
d_I, Intersection Delay [s/veh]	30.83											
Intersection LOS	C											
Intersection V/C	0.953											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	74.28
d_p, Pedestrian Delay [s]	0.00	0.00	62.23	62.23
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.289	2.850
Crosswalk LOS	F	F	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1013	1013	0	857
d_b, Bicycle Delay [s]	17.26	17.19	70.00	22.86
l_b,int, Bicycle LOS Score for Intersection	2.736	3.436	4.132	1.560
Bicycle LOS	B	C	D	A

Sequence

Ring 1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Willow Rd/SB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	18.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.632

Intersection Setup

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	2	0	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	300.00	100.00	100.00	100.00	150.00	100.00	170.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			35.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Base Volume Input [veh/h]	0	1374	995	0	1695	1385	700	0	456	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1374	995	0	1695	1385	700	0	456	0	0	0
Peak Hour Factor	1.0000	0.9700	0.9700	1.0000	0.9700	0.9700	0.9700	1.0000	0.9700	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	354	256	0	437	357	180	0	118	0	0	0
Total Analysis Volume [veh/h]	0	1416	1026	0	1747	1428	722	0	470	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			2			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			2			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	23			16			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	54.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	4	0	0	0	0	0
Auxiliary Signal Groups			4,6			2,4						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	4	4	0	4	4	4	0	0	0	0	0
Maximum Green [s]	0	35	35	0	35	35	50	0	0	0	0	0
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	55	55	0	55	55	85	0	0	0	0	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	7	7	0	32	32	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	3.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		Yes	Yes		Yes	Yes	No					
Maximum Recall		No	No		No	No	No					
Pedestrian Recall		No	No		No	No	No					
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	L	R	
C, Cycle Length [s]	140	140	140	140	140	140	
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00	5.00	5.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00	3.00	3.00	
g_i, Effective Green Time [s]	85	135	85	135	46	46	
g / C, Green / Cycle	0.60	0.96	0.60	0.96	0.33	0.33	
(v / s)_i Volume / Saturation Flow Rate	0.28	0.66	0.34	0.91	0.21	0.17	
s, saturation flow rate [veh/h]	5094	1544	5094	1562	3459	2813	
c, Capacity [veh/h]	3078	1488	3078	1505	1144	930	
d1, Uniform Delay [s]	15.16	0.25	16.66	0.88	39.59	37.61	
k, delay calibration	0.50	0.50	0.50	0.50	0.04	0.04	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.50	2.63	0.76	13.82	0.22	0.16	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.46	0.69	0.57	0.95	0.63	0.51	
d, Delay for Lane Group [s/veh]	15.66	2.89	17.43	14.70	39.80	37.76	
Lane Group LOS	B	A	B	B	D	D	
Critical Lane Group	No	No	No	Yes	No	No	
50th-Percentile Queue Length [veh/ln]	8.15	1.09	11.08	5.78	10.49	6.49	
50th-Percentile Queue Length [ft/ln]	203.85	27.22	277.03	144.50	262.21	162.13	
95th-Percentile Queue Length [veh/ln]	12.84	1.96	16.54	9.72	15.80	10.66	
95th-Percentile Queue Length [ft/ln]	320.93	49.00	413.51	243.06	394.99	266.54	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	15.66	2.89	0.00	17.43	14.70	39.80	0.00	37.76	0.00	0.00	0.00
Movement LOS		B	A		B	B	D		D			
d_A, Approach Delay [s/veh]	10.29			16.20			39.00			0.00		
Approach LOS	B			B			D			A		
d_I, Intersection Delay [s/veh]	18.07											
Intersection LOS	B											
Intersection V/C	0.632											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	62.23	62.23
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.919	2.447
Crosswalk LOS	F	F	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	727	727	1143	0
d_b, Bicycle Delay [s]	28.68	28.58	12.86	70.00
l_b,int, Bicycle LOS Score for Intersection	2.903	3.306	1.560	4.132
Bicycle LOS	C	C	A	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Willow Rd/Bay Rd

Control Type:	Signalized	Delay (sec / veh):	34.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.930

Intersection Setup

Name	Willow Rd		Willow Rd			
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	25.00	100.00	240.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Willow Rd		Willow Rd			
Base Volume Input [veh/h]	64	1879	1580	450	386	76
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	1879	1580	450	386	76
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	494	416	118	102	20
Total Analysis Volume [veh/h]	67	1978	1663	474	406	80
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		1		1	
v_ci, Inbound Pedestrian Volume crossing mi	0		1		1	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	24		15		3	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	140
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	60.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	5	2	6	0	4	0
Auxiliary Signal Groups						
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	9	10	8	0	10	0
Maximum Green [s]	16	36	36	0	22	0
Amber [s]	3.0	4.5	4.5	0.0	3.2	0.0
All red [s]	0.5	1.0	1.0	0.0	1.0	0.0
Split [s]	13	78	65	0	62	0
Vehicle Extension [s]	3.0	5.0	3.0	0.0	3.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	31	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	1.5	3.5	3.5	0.0	2.2	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	Yes	Yes		No	
Pedestrian Recall	No	No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	140	140	140	140	140	140
L, Total Lost Time per Cycle [s]	3.50	5.50	5.50	5.50	4.20	4.20
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.50	3.50	3.50	3.50	2.20	2.20
g_i, Effective Green Time [s]	8	92	81	81	38	38
g / C, Green / Cycle	0.06	0.66	0.58	0.58	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.04	0.62	0.52	0.34	0.25	0.06
s, saturation flow rate [veh/h]	1603	3204	3204	1386	1603	1410
c, Capacity [veh/h]	95	2118	1847	799	432	380
d1, Uniform Delay [s]	64.59	21.02	26.11	18.78	49.98	39.53
k, delay calibration	0.11	0.50	0.50	0.50	0.18	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.98	9.18	7.54	3.23	14.90	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.70	0.93	0.90	0.59	0.94	0.21
d, Delay for Lane Group [s/veh]	73.57	30.19	33.65	22.01	64.88	39.80
Lane Group LOS	E	C	C	C	E	D
Critical Lane Group	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.58	28.76	25.44	10.36	15.65	2.19
50th-Percentile Queue Length [ft/ln]	64.44	719.01	636.05	258.94	391.32	54.73
95th-Percentile Queue Length [veh/ln]	4.64	37.56	33.71	15.64	22.14	3.94
95th-Percentile Queue Length [ft/ln]	115.99	938.89	842.86	390.89	553.53	98.52

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	73.57	30.19	33.65	22.01	64.88	39.80
Movement LOS	E	C	C	C	E	D
d_A, Approach Delay [s/veh]	31.62		31.07		60.75	
Approach LOS	C		C		E	
d_I, Intersection Delay [s/veh]	34.40					
Intersection LOS	C					
Intersection V/C	0.930					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	1685.04
d_p, Pedestrian Delay [s]	0.00	0.00	59.43
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.295
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1036	850	826
d_b, Bicycle Delay [s]	16.47	23.32	24.17
l_b,int, Bicycle LOS Score for Intersection	3.247	3.323	1.560
Bicycle LOS	C	C	A

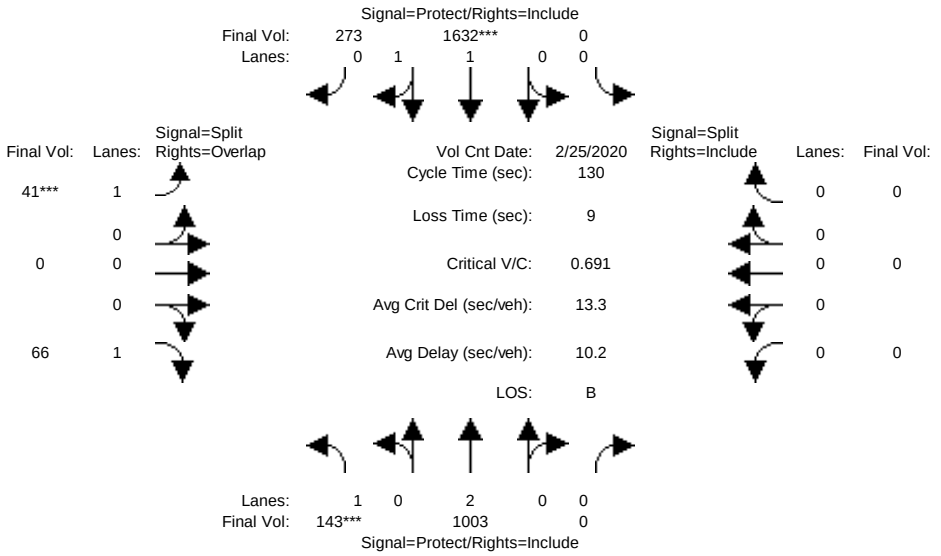
Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Intersection #2: University Avenue/O'Brien Drive



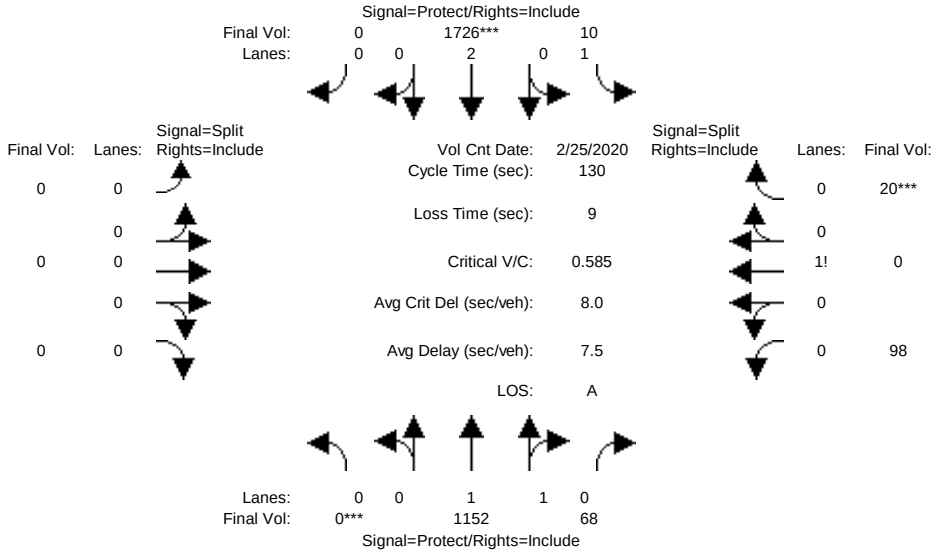
Street Name:	University Avenue						O'Brien Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	10	10	0	8	8	6	6	6	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	128	899	0	0	1468	246	37	0	58	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	128	899	0	0	1468	246	37	0	58	0	0	0
Added Vol:	1	4	0	0	1	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	129	903	0	0	1469	246	37	0	59	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	143	1003	0	0	1632	273	41	0	66	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	1003	0	0	1632	273	41	0	66	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	143	1003	0	0	1632	273	41	0	66	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.93	0.92	0.92	1.00	0.82	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.71	0.29	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3023	506	1745	0	1562	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.28	0.00	0.00	0.54	0.54	0.02	0.00	0.04	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.11	0.88	0.00	0.00	0.77	0.77	0.05	0.00	0.16	0.00	0.00	0.00
Volume/Cap:	0.70	0.31	0.00	0.00	0.70	0.70	0.51	0.00	0.26	0.00	0.00	0.00
Uniform Del:	55.5	1.2	0.0	0.0	7.4	7.4	60.6	0.0	47.9	0.0	0.0	0.0
IncremntDel:	10.3	0.1	0.0	0.0	0.8	0.8	5.4	0.0	0.6	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	65.8	1.3	0.0	0.0	8.2	8.2	65.9	0.0	48.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.8	1.3	0.0	0.0	8.2	8.2	65.9	0.0	48.5	0.0	0.0	0.0
LOS by Move:	E	A	A	A	A	A	E	A	D	A	A	A
HCM2kAvgQ:	141	88	0	0	511	506	58	0	61	0	0	0

Note: Queue reported is the distance per lane in feet.

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Intersection #3: University Avenue/Notre Dame Avenue

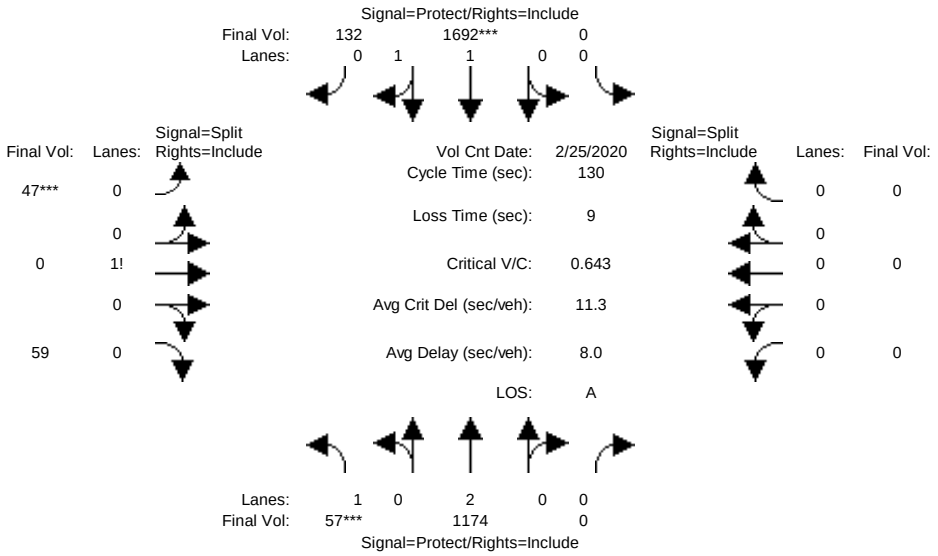


Street Name:	University Avenue						Notre Dame Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	8	8	4	8	0	0	0	0	4	0	4
Y+R:	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	0	1009	59	9	1517	0	0	0	0	86	0	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1009	59	9	1517	0	0	0	0	86	0	18
Added Vol:	0	5	1	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1014	60	9	1519	0	0	0	0	86	0	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	0	1152	68	10	1726	0	0	0	0	98	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1152	68	10	1726	0	0	0	0	98	0	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1152	68	10	1726	0	0	0	0	98	0	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.93	0.95	0.95	1.00	1.00	1.00	1.00	0.94	1.00	0.94
Lanes:	0.00	1.89	0.11	1.00	2.00	0.00	0.00	0.00	0.00	0.83	0.00	0.17
Final Sat.:	0	3380	200	1805	3610	0	0	0	0	1473	0	308
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.34	0.01	0.48	0.00	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:	****				****							****
Green/Cycle:	0.00	0.75	0.75	0.07	0.82	0.00	0.00	0.00	0.00	0.11	0.00	0.11
Volume/Cap:	0.00	0.45	0.45	0.08	0.58	0.00	0.00	0.00	0.00	0.58	0.00	0.58
Uniform Del:	0.0	6.2	6.2	56.8	4.2	0.0	0.0	0.0	0.0	54.7	0.0	54.7
IncremntDel:	0.0	0.1	0.1	0.3	0.3	0.0	0.0	0.0	0.0	4.4	0.0	4.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	6.3	6.3	57.1	4.5	0.0	0.0	0.0	0.0	59.1	0.0	59.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.3	6.3	57.1	4.5	0.0	0.0	0.0	0.0	59.1	0.0	59.1
LOS by Move:	A	A	A	E	A	A	A	A	A	E	A	E
HCM2kAvgQ:	0	241	239	9	312	0	0	0	0	133	0	133

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Intersection #4: University Avenue/Kavanaugh Drive

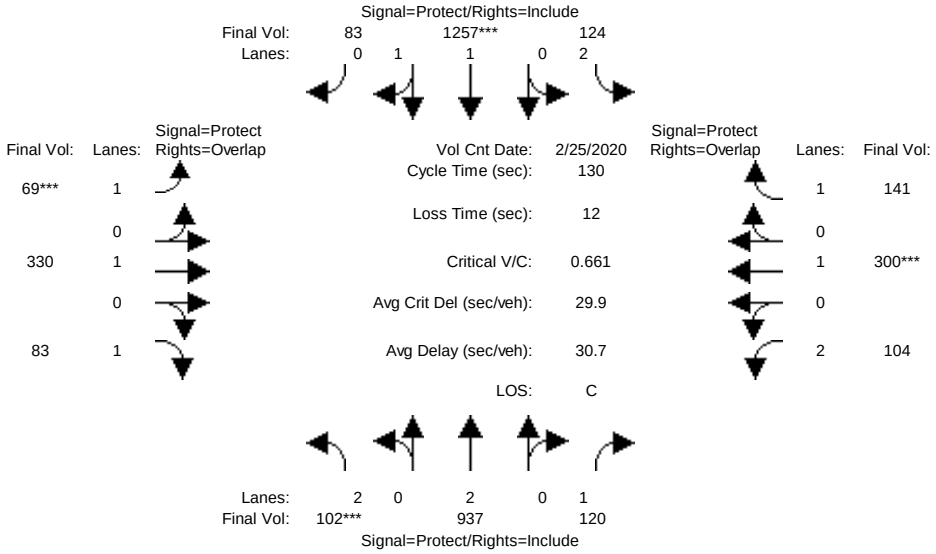


Street Name:	University Avenue						Kavanaugh Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	0	0	8	8	4	0	4	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	3.5	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	49	1027	0	0	1487	116	41	0	51	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	1027	0	0	1487	116	41	0	51	0	0	0
Added Vol:	1	6	0	0	2	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	1033	0	0	1489	116	41	0	52	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	57	1174	0	0	1692	132	47	0	59	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	1174	0	0	1692	132	47	0	59	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	1174	0	0	1692	132	47	0	59	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.94	0.93	1.00	1.00	0.99	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.85	0.15	0.44	0.00	0.56	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3311	258	832	0	1056	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.33	0.00	0.00	0.51	0.51	0.06	0.00	0.06	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.05	0.84	0.00	0.00	0.79	0.79	0.09	0.00	0.09	0.00	0.00	0.00
Volume/Cap:	0.64	0.39	0.00	0.00	0.64	0.64	0.64	0.00	0.64	0.00	0.00	0.00
Uniform Del:	60.7	2.4	0.0	0.0	5.6	5.6	57.4	0.0	57.4	0.0	0.0	0.0
IncremntDel:	15.1	0.1	0.0	0.0	0.5	0.5	8.4	0.0	8.4	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	75.8	2.4	0.0	0.0	6.1	6.1	65.8	0.0	65.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	75.8	2.4	0.0	0.0	6.1	6.1	65.8	0.0	65.8	0.0	0.0	0.0
LOS by Move:	E	A	A	A	A	A	E	A	E	A	A	A
HCM2kAvgQ:	84	145	0	0	402	399	130	0	130	0	0	0

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Intersection #5: University Avenue/Bay Road

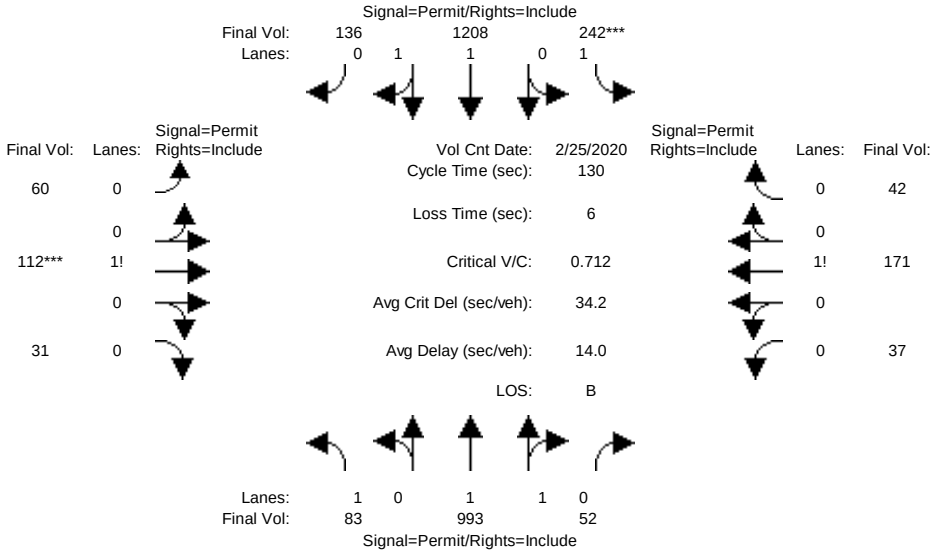


Street Name:	University Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	94	874	109	117	1179	78	65	310	77	96	282	133
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	874	109	117	1179	78	65	310	77	96	282	133
Added Vol:	2	7	4	0	3	0	0	0	1	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	96	881	113	117	1182	78	65	310	78	98	282	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	102	937	120	124	1257	83	69	330	83	104	300	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	937	120	124	1257	83	69	330	83	104	300	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	102	937	120	124	1257	83	69	330	83	104	300	141
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.80	0.92	0.94	0.94	0.95	1.00	0.81	0.92	1.00	0.77
Lanes:	2.00	2.00	1.00	2.00	1.88	0.12	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3502	3610	1514	3502	3355	221	1805	1900	1548	3502	1900	1464
Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.08	0.04	0.37	0.37	0.04	0.17	0.05	0.03	0.16	0.10
Crit Moves:	****				****		****				****	
Green/Cycle:	0.04	0.54	0.54	0.07	0.57	0.57	0.06	0.25	0.30	0.04	0.24	0.31
Volume/Cap:	0.66	0.48	0.15	0.48	0.66	0.66	0.66	0.69	0.18	0.67	0.66	0.31
Uniform Del:	61.2	18.8	15.1	57.8	19.5	19.5	60.0	44.0	34.0	61.1	44.7	34.0
IncremntDel:	10.2	0.2	0.1	1.4	0.8	0.8	14.6	4.2	0.2	10.4	3.6	0.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	71.4	19.0	15.2	59.3	20.3	20.3	74.6	48.2	34.2	71.6	48.3	34.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.4	19.0	15.2	59.3	20.3	20.3	74.6	48.2	34.2	71.6	48.3	34.4
LOS by Move:	E	B	B	E	C	C	E	D	C	E	D	C
HCM2kAvgQ:	55	297	58	77	488	486	98	319	61	83	289	108

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative Plus Project AM

Intersection #6: University Avenue/Runnymede Street

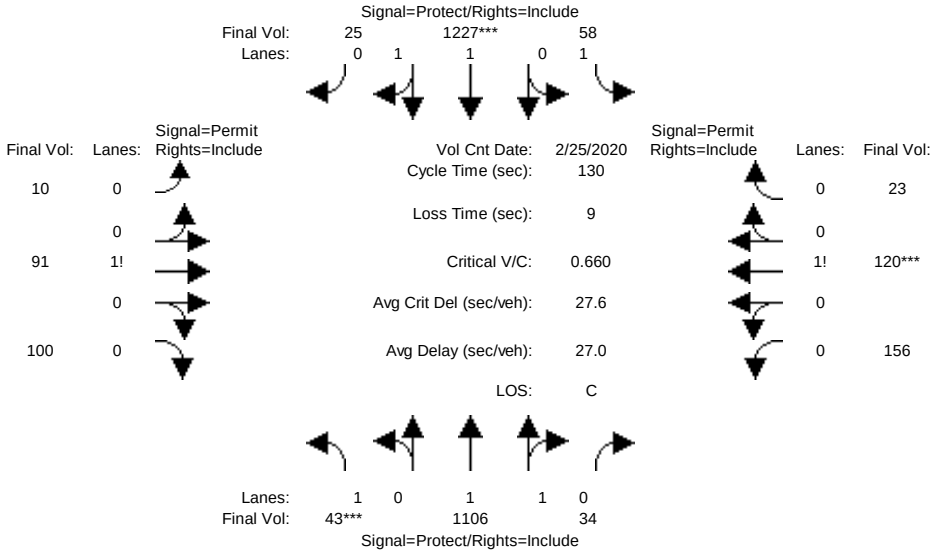


Street Name:	University Avenue						Runnymede Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	8	8	8	8	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	73	870	45	215	1069	121	53	100	28	32	152	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	73	870	45	215	1069	121	53	100	28	32	152	37
Added Vol:	1	14	1	0	6	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	884	46	215	1075	121	53	100	28	33	152	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	83	993	52	242	1208	136	60	112	31	37	171	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	993	52	242	1208	136	60	112	31	37	171	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	83	993	52	242	1208	136	60	112	31	37	171	42
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.16	0.94	0.94	0.24	0.94	0.93	0.66	0.75	0.66	0.88	1.06	0.88
Lanes:	1.00	1.90	0.10	1.00	1.80	0.20	0.31	0.52	0.17	0.17	0.64	0.19
Final Sat.:	312	3407	177	457	3195	360	395	745	209	280	1292	314
Capacity Analysis Module:												
Vol/Sat:	0.27	0.29	0.29	0.53	0.38	0.38	0.15	0.15	0.15	0.13	0.13	0.13
Crit Moves:				****				****				
Green/Cycle:	0.74	0.74	0.74	0.74	0.74	0.74	0.21	0.21	0.21	0.21	0.21	0.21
Volume/Cap:	0.36	0.39	0.39	0.71	0.51	0.51	0.71	0.71	0.71	0.62	0.62	0.62
Uniform Del:	5.9	6.1	6.1	9.2	7.0	7.0	47.5	47.5	47.5	46.5	46.5	46.5
IncremntDel:	1.0	0.1	0.1	6.9	0.2	0.2	8.1	8.1	8.1	3.1	3.1	3.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	6.9	6.2	6.2	16.1	7.1	7.1	55.7	55.7	55.7	49.6	49.6	49.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.9	6.2	6.2	16.1	7.1	7.1	55.7	55.7	55.7	49.6	49.6	49.6
LOS by Move:	A	A	A	B	A	A	E	E	E	D	D	D
HCM2kAvgQ:	30	194	193	138	284	283	210	232	210	219	256	219

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative Plus Project AM

Intersection #7: University Avenue/Bell Street



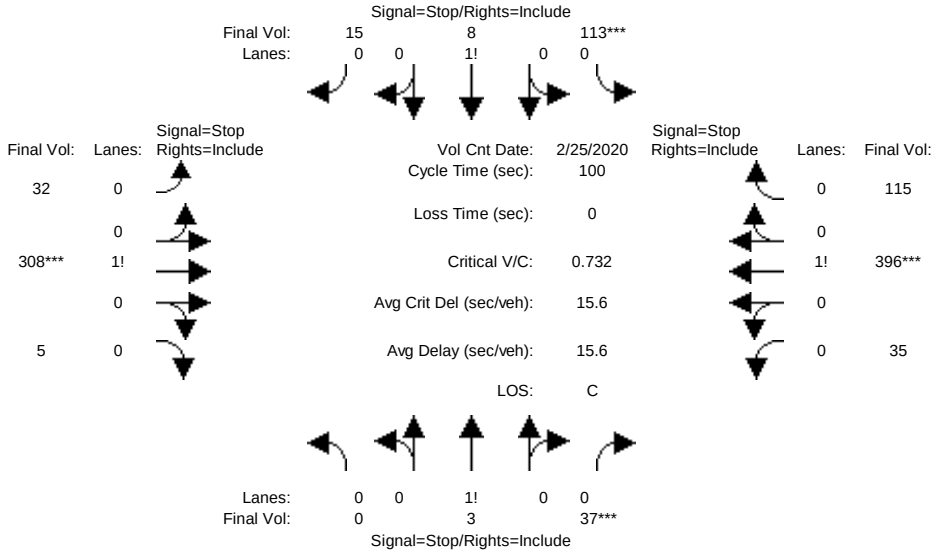
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 8:00AM												
Base Vol:	37	957	29	51	1074	22	9	80	88	136	106	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	957	29	51	1074	22	9	80	88	136	106	20
Added Vol:	1	16	1	0	6	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	973	30	51	1080	22	9	80	88	137	106	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	43	1106	34	58	1227	25	10	91	100	156	120	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	1106	34	58	1227	25	10	91	100	156	120	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	1106	34	58	1227	25	10	91	100	156	120	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.92	0.90	0.65	0.65	0.65
Lanes:	1.00	1.94	0.06	1.00	1.96	0.04	0.05	0.45	0.50	0.52	0.40	0.08
Final Sat.:	1805	3488	108	1805	3527	72	88	782	860	642	497	94
Capacity Analysis Module:												
Vol/Sat:	0.02	0.32	0.32	0.03	0.35	0.35	0.12	0.12	0.12	0.24	0.24	0.24
Crit Moves:	****				****						****	
Green/Cycle:	0.04	0.51	0.51	0.05	0.53	0.53	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.66	0.62	0.62	0.62	0.66	0.66	0.32	0.32	0.32	0.66	0.66	0.66
Uniform Del:	61.9	22.7	22.7	60.4	22.3	22.3	29.4	29.4	29.4	34.3	34.3	34.3
IncremntDel:	22.2	0.7	0.7	12.1	0.9	0.9	0.3	0.3	0.3	3.6	3.6	3.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	84.1	23.4	23.4	72.4	23.2	23.2	29.7	29.7	29.7	37.9	37.9	37.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	84.1	23.4	23.4	72.4	23.2	23.2	29.7	29.7	29.7	37.9	37.9	37.9
LOS by Move:	F	C	C	E	C	C	C	C	C	D	D	D
HCM2kAvgQ:	71	427	426	58	466	466	142	142	141	270	270	270

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumulative Plus Project AM

Intersection #14: Bay Road/Newbridge Street/Ralmar Avenue



Street Name:	Bay Road/Ralmar Avenue						Bay Road/Newbridge Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:30AM												
Base Vol:	0	3	34	102	7	14	29	280	5	32	360	103
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	3	34	102	7	14	29	280	5	32	360	103
Added Vol:	0	0	0	1	0	0	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	3	34	103	7	14	29	280	5	32	360	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	3	37	113	8	15	32	308	5	35	396	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	3	37	113	8	15	32	308	5	35	396	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	3	37	113	8	15	32	308	5	35	396	115
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.08	0.92	0.83	0.06	0.11	0.09	0.89	0.02	0.06	0.73	0.21
Final Sat.:	0	44	499	443	30	60	63	612	11	48	540	158
Capacity Analysis Module:												
Vol/Sat:	xxxx	0.07	0.07	0.26	0.26	0.26	0.50	0.50	0.50	0.73	0.73	0.73
Crit Moves:			****	****				****			****	
Delay/Veh:	0.0	9.0	9.0	10.9	10.9	10.9	12.8	12.8	12.8	19.0	19.0	19.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	9.0	9.0	10.9	10.9	10.9	12.8	12.8	12.8	19.0	19.0	19.0
LOS by Move:	*	A	A	B	B	B	B	B	B	C	C	C
ApproachDel:		9.0			10.9			12.8			19.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.0			10.9			12.8			19.0	
LOS by Appr:		A			B			B			C	
AllWayAvgQ:	1.5	1.5	1.5	6.7	6.7	6.7	22.6	22.6	22.6	58.4	58.4	58.4

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #14 Bay Road/Newbridge Street/Ralmar Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Initial Vol:	0	3	34	103	7	14	29	280	5	32	360	105

Major Street Volume: 811
Minor Approach Volume: 124
Minor Approach Volume Threshold: 275

SIGNAL WARRANT DISCLAIMER

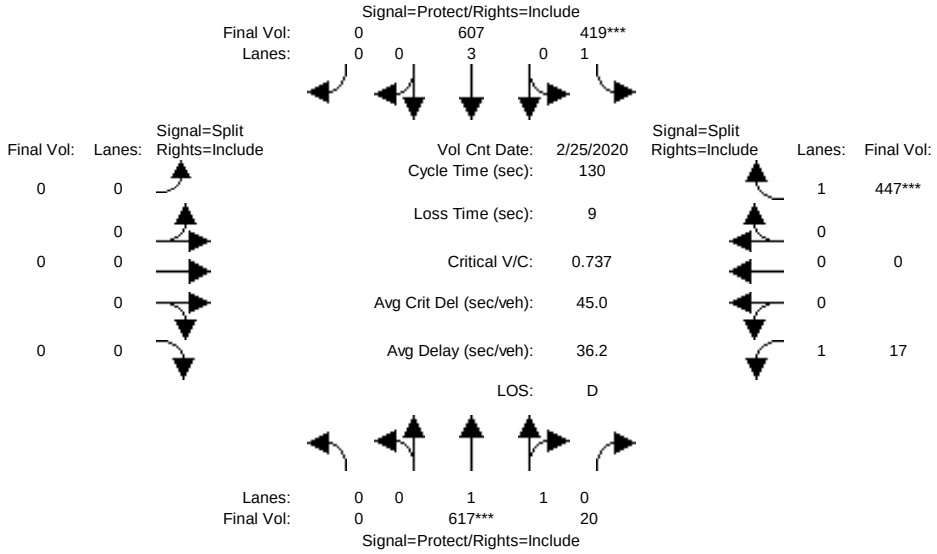
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative Plus Project AM

Intersection #17: Donohoe Street/E Bayshore Road

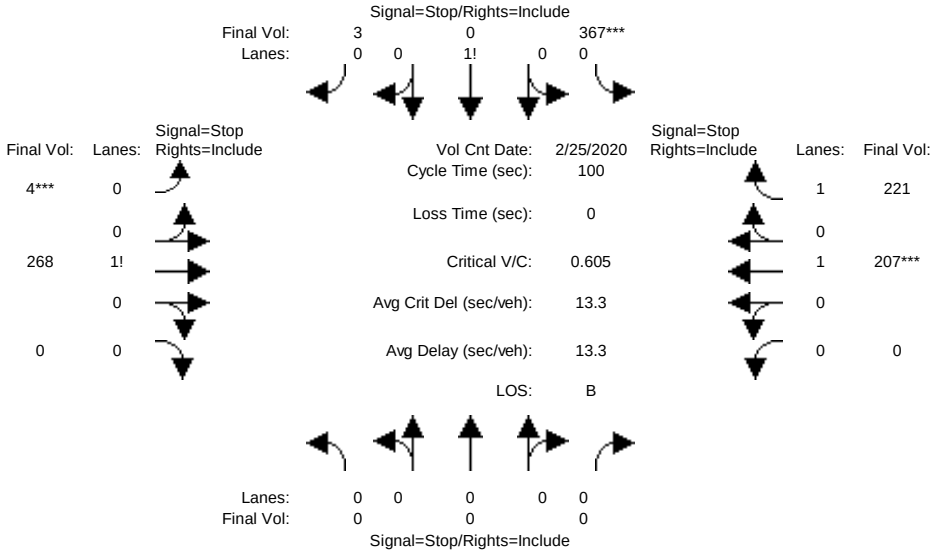


Street Name:	Donohoe Street/E Bayshore Road						Donohoe Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 7:00AM												
Base Vol:	0	530	17	359	520	0	0	0	0	15	0	383
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	530	17	359	520	0	0	0	0	15	0	383
Added Vol:	0	1	0	1	2	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	531	17	360	522	0	0	0	0	15	0	384
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	0	617	20	419	607	0	0	0	0	17	0	447
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	617	20	419	607	0	0	0	0	17	0	447
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	617	20	419	607	0	0	0	0	17	0	447
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.94	0.95	0.91	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.94	0.06	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3480	111	1805	5187	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.18	0.23	0.12	0.00	0.00	0.00	0.00	0.01	0.00	0.28
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.24	0.24	0.31	0.56	0.00	0.00	0.00	0.00	0.38	0.00	0.38
Volume/Cap:	0.00	0.74	0.74	0.74	0.21	0.00	0.00	0.00	0.00	0.03	0.00	0.74
Uniform Del:	0.0	45.5	45.5	39.7	14.5	0.0	0.0	0.0	0.0	25.6	0.0	35.1
IncremntDel:	0.0	3.4	3.4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	48.9	48.9	44.8	14.6	0.0	0.0	0.0	0.0	25.6	0.0	39.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	48.9	48.9	44.8	14.6	0.0	0.0	0.0	0.0	25.6	0.0	39.8
LOS by Move:	A	D	D	D	B	A	A	A	A	C	A	D
HCM2kAvgQ:	0	340	339	399	108	0	0	0	0	11	0	410

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumulative Plus Project AM

Intersection #19: Woodland Avenue/Manhattan Avenue



Street Name:	Manhattan Avenue						Woodland Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:15AM												
Base Vol:	0	0	0	255	0	3	4	244	0	0	188	169
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	255	0	3	4	244	0	0	188	169
Added Vol:	0	0	0	79	0	0	0	0	0	0	0	32
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	334	0	3	4	244	0	0	188	201
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	367	0	3	4	268	0	0	207	221
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	367	0	3	4	268	0	0	207	221
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	367	0	3	4	268	0	0	207	221
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.99	0.00	0.01	0.02	0.98	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	607	0	5	10	606	0	0	588	663
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	0.60	xxxx	0.60	0.44	0.44	xxxx	xxxx	0.35	0.33
Crit Moves:				****			****				****	
Delay/Veh:	0.0	0.0	0.0	16.3	0.0	16.3	12.7	12.7	0.0	0.0	11.7	10.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	16.3	0.0	16.3	12.7	12.7	0.0	0.0	11.7	10.4
LOS by Move:	*	*	*	C	*	C	B	B	*	*	B	B
ApproachDel:	xxxxxx			16.3			12.7			11.0		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			16.3			12.7			11.0		
LOS by Appr:	*			C			B			B		
AllWayAvgQ:	0.0	0.0	0.0	32.6	32.6	32.6	17.5	17.5	17.5	0.0	12.4	11.3

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #19 Woodland Avenue/Manhattan Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	0	0	0	1!	0	0	1	0	0	1
Initial Vol:	0	0	0	334	0	3	4	244	0	0	188	201

Major Street Volume: 637
Minor Approach Volume: 337
Minor Approach Volume Threshold: 440

SIGNAL WARRANT DISCLAIMER

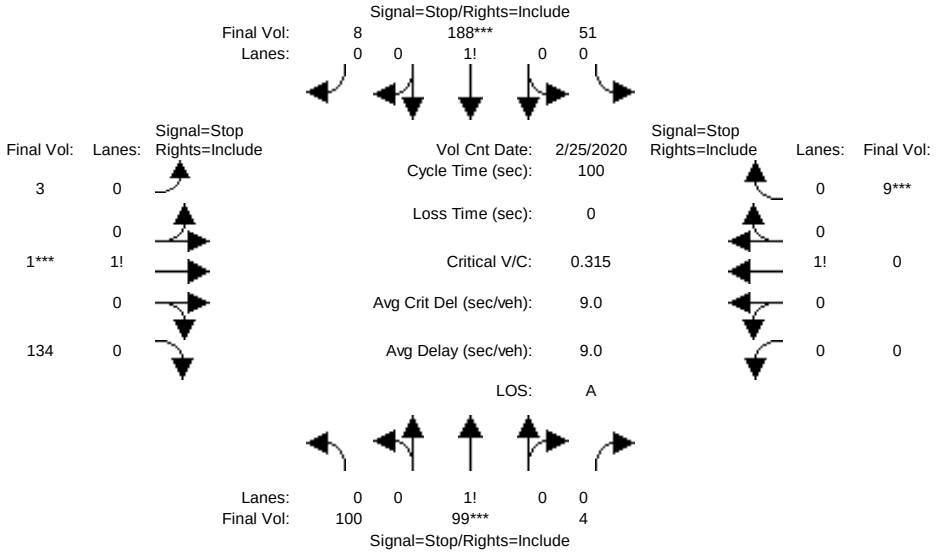
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumulative Plus Project AM

Intersection #20: O'Conner Street/Manhattan Avenue



Street Name:	Manhattan Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:15AM												
Base Vol:	85	66	4	47	111	5	2	1	107	0	0	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	85	66	4	47	111	5	2	1	107	0	0	8
Added Vol:	7	25	0	0	62	2	1	0	16	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	92	91	4	47	173	7	3	1	123	0	0	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	100	99	4	51	188	8	3	1	134	0	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	99	4	51	188	8	3	1	134	0	0	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	100	99	4	51	188	8	3	1	134	0	0	9
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.49	0.49	0.02	0.21	0.76	0.03	0.02	0.01	0.97	0.00	0.00	1.00
Final Sat.:	376	372	16	162	598	24	18	6	747	0	0	724
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.27	0.31	0.31	0.31	0.18	0.18	0.18	xxxx	xxxx	0.01
Crit Moves:		****			****			****				****
Delay/Veh:	9.2	9.2	9.2	9.4	9.4	9.4	8.2	8.2	8.2	0.0	0.0	7.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.2	9.2	9.2	9.4	9.4	9.4	8.2	8.2	8.2	0.0	0.0	7.5
LOS by Move:	A	A	A	A	A	A	A	A	A	*	*	A
ApproachDel:		9.2			9.4			8.2			7.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.2			9.4			8.2			7.5	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	8.4	8.4	8.4	10.7	10.7	10.7	4.6	4.6	4.6	0.2	0.2	0.2

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #20 O'Conner Street/Manhattan Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0	0 0	0 0	1
Initial Vol:	92	91	4	47	173	7	3	1	123	0	0	8

Major Street Volume: 414
Minor Approach Volume: 127
Minor Approach Volume Threshold: 455

SIGNAL WARRANT DISCLAIMER

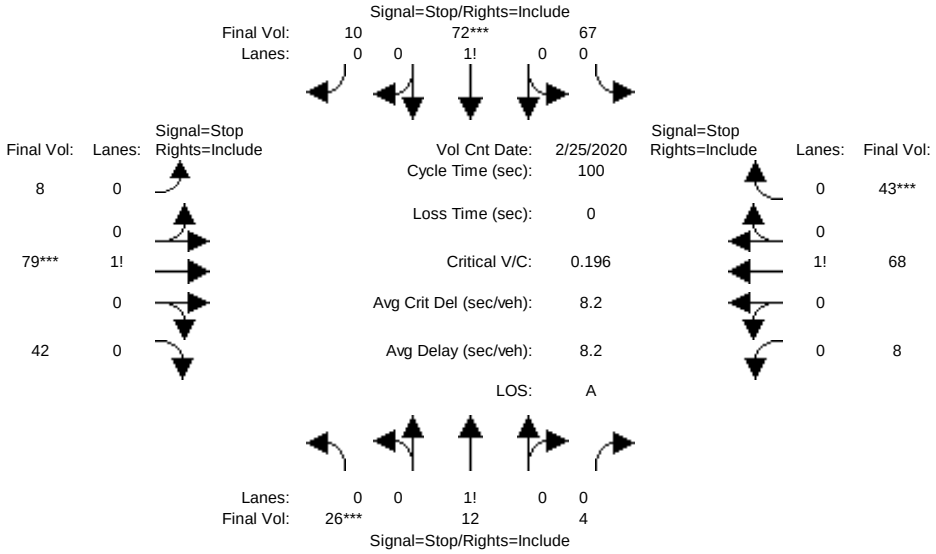
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumulative Plus Project AM

Intersection #21: O'Conner Street/Euclid Avenue



Street Name:	Euclid Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 7:45AM												
Base Vol:	24	11	4	46	66	8	6	72	39	7	61	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	11	4	46	66	8	6	72	39	7	61	33
Added Vol:	0	0	0	16	0	1	1	1	0	0	2	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	11	4	62	66	9	7	73	39	7	63	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	26	12	4	67	72	10	8	79	42	8	68	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	12	4	67	72	10	8	79	42	8	68	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	12	4	67	72	10	8	79	42	8	68	43
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.28	0.10	0.45	0.48	0.07	0.06	0.61	0.33	0.06	0.58	0.36
Final Sat.:	449	206	75	344	366	50	48	496	265	51	463	294
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.20	0.20	0.20	0.16	0.16	0.16	0.15	0.15	0.15
Crit Moves:	****				****			****				****
Delay/Veh:	7.9	7.9	7.9	8.6	8.6	8.6	8.1	8.1	8.1	8.0	8.0	8.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.9	7.9	7.9	8.6	8.6	8.6	8.1	8.1	8.1	8.0	8.0	8.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.9			8.6			8.1			8.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.9			8.6			8.1			8.0		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	1.4	1.4	1.4	5.5	5.5	5.5	4.4	4.4	4.4	4.0	4.0	4.0

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #21 O'Conner Street/Euclid Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0	0		0 0 1! 0	0		0 0 1! 0	0		0 0 1! 0	0	
Initial Vol:	24	11	4	62	66	9	7	73	39	7	63	40

Major Street Volume: 229
Minor Approach Volume: 137
Minor Approach Volume Threshold: 613

SIGNAL WARRANT DISCLAIMER

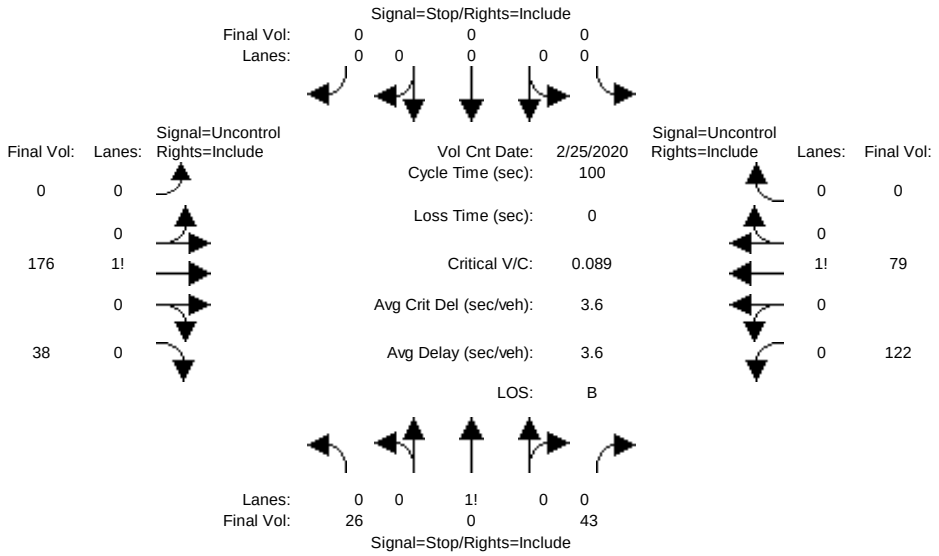
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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative Plus Project AM

Intersection #22: W Bayshore Road/Euclid Avenue



Street Name:	Euclid Avenue						W Bayshore Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 25 Feb 2020 << 7:00AM												
Base Vol:	15	0	33	0	0	0	0	127	27	93	43	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	0	33	0	0	0	0	127	27	93	43	0
Added Vol:	5	0	0	0	0	0	0	7	2	0	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	0	33	0	0	0	0	134	29	93	60	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
PHF Volume:	26	0	43	0	0	0	0	176	38	122	79	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	26	0	43	0	0	0	0	176	38	122	79	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	519	519	196	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	214	xxxx	xxxxx
Potent Cap.:	521	464	850	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1368	xxxx	xxxxx
Move Cap.:	482	419	849	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1368	xxxx	xxxxx
Volume/Cap:	0.05	0.00	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	660	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Shrd ConDel:	xxxxx	11.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		11.1		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B		*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

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Intersection #22 W Bayshore Road/Euclid Avenue

****

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	20	0	33	0	0	0	0	134	29	93	60	0
ApproachDel:	11.1			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=53]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=369]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #22 W Bayshore Road/Euclid Avenue

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	20	0	33	0	0	0	0	134	29	93	60	0

Major Street Volume: 316
Minor Approach Volume: 53
Minor Approach Volume Threshold: 527

SIGNAL WARRANT DISCLAIMER
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8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	36.7	3.8
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	123.1	112.4	111.7
Total Delay (hr)	0.2	0.5	6.7	8.8	7.6	1.4	14.1	5.1	1.8	1.9	118.9	10.5
Total Del/Veh (s)	65.0	18.8	46.2	68.1	58.0	12.7	295.6	35.6	12.2	374.3	392.9	335.0
Avg Speed (mph)	3	9	4	3	3	10	1	5	10	3	3	4
Vehicles Entered	10	103	516	451	460	383	166	508	539	17	1049	110

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	41.2
Denied Del/Veh (s)	33.3
Total Delay (hr)	177.5
Total Del/Veh (s)	148.4
Avg Speed (mph)	3
Vehicles Entered	4312

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.3	0.6	0.1	0.0	0.0	0.0	1.1
Denied Del/Veh (s)	3.5	4.0	0.4	0.2	0.0	0.0	0.8
Total Delay (hr)	35.4	69.4	17.0	2.1	13.9	11.2	148.9
Total Del/Veh (s)	331.9	426.9	51.3	16.0	57.7	26.6	107.0
Avg Speed (mph)	5	4	5	10	8	12	6
Vehicles Entered	353	550	1169	466	850	1498	4886

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.9	4.5	0.8	10.0	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	38.6	42.1	48.4	39.8	35.7	31.8	0.0	0.0	0.0
Total Delay (hr)	8.7	1.5	0.9	0.4	2.6	9.9	6.7	91.3	1.2	2.8	6.9	1.4
Total Del/Veh (s)	64.0	62.7	43.3	127.4	127.8	109.1	333.0	322.3	296.4	53.7	23.4	9.5
Avg Speed (mph)	2	2	3	3	3	3	7	7	7	5	8	13
Vehicles Entered	480	87	73	11	73	322	69	945	13	187	1052	523

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	16.4
Denied Del/Veh (s)	15.1
Total Delay (hr)	134.3
Total Del/Veh (s)	122.5
Avg Speed (mph)	6
Vehicles Entered	3835

15: NB US 101 On-ramp/Private DWY & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.5	22.0	19.4	0.0	0.0	0.0	0.0	0.0	0.0	41.9
Denied Del/Veh (s)	106.4	120.0	118.0	0.0	0.0	0.0	0.2	0.2	0.1	74.8
Total Delay (hr)	0.4	12.3	3.6	5.0	0.1	0.1	0.1	0.1	0.1	21.9
Total Del/Veh (s)	100.3	69.6	23.0	39.3	3.4	2.7	58.6	61.0	16.8	39.8
Avg Speed (mph)	3	4	8	5	18	17	2	2	5	5
Vehicles Entered	16	624	560	449	152	123	7	7	10	1948

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBR	All
Denied Delay (hr)	0.0	202.2	4.7	0.2	0.0	0.2	0.0	207.4
Denied Del/Veh (s)	0.0	557.4	558.9	1.3	0.6	2.5	0.1	244.8
Total Delay (hr)	2.3	220.6	4.8	7.4	0.7	1.2	0.4	237.4
Total Del/Veh (s)	12.8	964.5	815.6	41.3	29.1	13.2	61.7	351.4
Avg Speed (mph)	9	2	2	11	13	18	2	2
Vehicles Entered	652	779	19	627	84	329	21	2511

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	2.0	1.3	0.0	0.1	0.1	0.1	0.6
Total Delay (hr)	0.4	9.0	1.8	0.5	5.9	1.2	18.7
Total Del/Veh (s)	46.8	55.4	18.0	5.7	233.7	325.2	48.5
Avg Speed (mph)	13	12	6	9	2	2	9
Vehicles Entered	27	565	345	322	88	12	1359

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	13.9	1.2	0.4	0.4	15.9
Denied Del/Veh (s)	111.3	3.6	3.0	0.7	14.0
Total Delay (hr)	24.6	16.1	5.9	4.3	50.8
Total Del/Veh (s)	199.1	46.7	47.4	8.0	44.9
Avg Speed (mph)	2	9	9	13	7
Vehicles Entered	424	1233	442	1937	4036

Total Network Performance

Denied Delay (hr)	324.0
Denied Del/Veh (s)	134.0
Total Delay (hr)	800.2
Total Del/Veh (s)	335.2
Avg Speed (mph)	7
Vehicles Entered	7845

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	47	117	340	225	317	321	259	225	250	344	331	175
Average Queue (ft)	9	41	304	224	290	250	103	186	198	245	209	140
95th Queue (ft)	31	93	389	231	308	344	212	269	311	391	345	210
Link Distance (ft)		313	313		266	266	266			282	282	
Upstream Blk Time (%)			18		42	14	1			36	3	
Queuing Penalty (veh)			61		273	93	3			256	23	
Storage Bay Dist (ft)	200			175				200	200			125
Storage Blk Time (%)				31	64			55	40	3	15	9
Queuing Penalty (veh)				215	217			156	114	6	98	25

Intersection: 8: University Avenue & Donohoe Street

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	299	2334	2341	300
Average Queue (ft)	56	1825	1820	204
95th Queue (ft)	226	2796	2786	417
Link Distance (ft)		2292	2292	
Upstream Blk Time (%)		45	45	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)	250			250
Storage Blk Time (%)		73	73	0
Queuing Penalty (veh)		13	92	0

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	2266	2284	250	388	390	364	123	250	275	917	928
Average Queue (ft)	1545	1622	250	348	353	112	81	234	263	530	515
95th Queue (ft)	2602	2591	250	399	402	256	122	284	302	931	922
Link Distance (ft)	3124	3124		354	354	354				939	939
Upstream Blk Time (%)	3	3		9	15	1				1	1
Queuing Penalty (veh)	0	0		56	93	9				9	9
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		83	53					5	20	4	
Queuing Penalty (veh)		227	239					47	177	42	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	181	187	162	650	75	225	4818	290	291	352	352	276
Average Queue (ft)	155	163	101	397	74	109	2795	288	140	238	242	121
95th Queue (ft)	194	181	172	734	79	264	5441	298	242	340	336	222
Link Distance (ft)	159	159	159	645			5041		354	354	354	354
Upstream Blk Time (%)	30	46	9	21			17		0	0	0	
Queuing Penalty (veh)	65	99	20	0			0		0	1	1	
Storage Bay Dist (ft)					25	175		240				
Storage Blk Time (%)				49	76	0	57	66				
Queuing Penalty (veh)				164	70	0	337	382				

Intersection: 15: NB US 101 On-ramp/Private DWY & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	R	L	T	TR	LTR
Maximum Queue (ft)	109	468	465	344	311	274	84
Average Queue (ft)	25	421	397	266	62	46	23
95th Queue (ft)	85	540	570	364	244	178	59
Link Distance (ft)		429	429	313	313	313	196
Upstream Blk Time (%)		52	23	7	0	0	
Queuing Penalty (veh)		0	0	22	1	1	
Storage Bay Dist (ft)	60						
Storage Blk Time (%)	0	64					
Queuing Penalty (veh)	3	11					

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	T	T	T	T	TR	L	L	T	R	R
Maximum Queue (ft)	172	190	3104	3107	295	344	345	171	212	73
Average Queue (ft)	98	113	2874	2869	270	209	200	54	95	21
95th Queue (ft)	160	175	3624	3625	397	313	306	125	170	58
Link Distance (ft)	266	266	3057	3057			1046	1046		230
Upstream Blk Time (%)			77	76						
Queuing Penalty (veh)			0	0						
Storage Bay Dist (ft)					245	475			200	
Storage Blk Time (%)				70	7	0	0		1	
Queuing Penalty (veh)				329	28	0	0		1	

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	250	693	160	190	125	292	352
Average Queue (ft)	164	307	76	110	82	90	142
95th Queue (ft)	291	824	143	188	150	282	384
Link Distance (ft)		2014	159	159		999	999
Upstream Blk Time (%)		2	0	3			
Queuing Penalty (veh)		0	1	13			
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	3	20		21	1		
Queuing Penalty (veh)	8	61		40	4		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	883	895	906	320	317
Average Queue (ft)	689	410	447	79	87
95th Queue (ft)	1092	1051	1073	286	288
Link Distance (ft)	846	939	939	282	282
Upstream Blk Time (%)	46	3	4	3	3
Queuing Penalty (veh)	0	26	42	35	31
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 4351

8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.0	2.5
Total Delay (hr)	0.0	0.3	1.4	9.2	8.8	3.2	4.2	2.1	1.0	1.2	62.6	5.2
Total Del/Veh (s)	22.6	30.1	22.3	59.8	54.1	24.4	84.0	14.0	6.2	212.0	188.2	140.9
Avg Speed (mph)	8	7	8	3	4	7	2	9	13	5	6	7
Vehicles Entered	5	38	226	541	575	461	176	549	590	20	1161	130

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	0.8
Denied Del/Veh (s)	0.6
Total Delay (hr)	99.4
Total Del/Veh (s)	78.6
Avg Speed (mph)	6
Vehicles Entered	4472

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.5	0.4	0.1	0.0	0.0	0.0	0.1
Total Delay (hr)	39.8	80.8	14.1	2.4	11.9	9.3	158.3
Total Del/Veh (s)	324.1	481.6	40.0	16.5	50.5	22.2	111.4
Avg Speed (mph)	4	3	5	9	8	13	5
Vehicles Entered	344	550	1247	514	840	1482	4977

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.4	0.2	1.9	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	4.3	2.4	4.5	7.8	6.6	4.7	0.0	0.0	0.0
Total Delay (hr)	4.9	0.5	0.3	0.3	1.6	5.0	4.9	71.2	1.0	2.8	7.0	1.7
Total Del/Veh (s)	35.8	17.9	13.3	92.2	73.4	53.3	243.1	238.1	246.4	54.0	24.0	12.2
Avg Speed (mph)	4	6	7	4	5	6	8	9	9	4	8	11
Vehicles Entered	488	97	81	12	80	337	69	1004	13	189	1043	507

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	2.5
Denied Del/Veh (s)	2.3
Total Delay (hr)	101.4
Total Del/Veh (s)	90.7
Avg Speed (mph)	8
Vehicles Entered	3920

15: NB US 101 On-ramp/Private DWY & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	6.7	256.0	226.9	0.0	0.0	0.0	2.4	2.5	2.9	497.4
Denied Del/Veh (s)	1211.6	1281.6	1284.4	0.0	0.0	0.0	1419.2	1286.3	1159.9	786.4
Total Delay (hr)	0.1	8.5	13.3	1.7	0.3	0.2	3.3	2.6	1.6	31.6
Total Del/Veh (s)	64.9	109.7	187.1	10.8	6.2	4.5	2988.0	3146.4	2820.0	79.4
Avg Speed (mph)	4	2	1	12	15	15	0	0	0	3
Vehicles Entered	8	271	240	554	185	141	1	1	1	1402

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	187.5	25.3	98.1	0.0	311.0
Denied Del/Veh (s)	0.0	0.1	0.1	1051.7	1048.9	1073.2	0.1	364.6
Total Delay (hr)	3.3	26.7	0.2	63.8	1.1	4.0	0.0	99.1
Total Del/Veh (s)	18.2	70.8	19.9	719.8	109.8	100.5	5.6	139.1
Avg Speed (mph)	7	13	20	1	5	5	11	7
Vehicles Entered	654	1306	33	263	35	139	20	2450

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.3	0.5	0.1	0.1	0.1	0.1	0.3
Total Delay (hr)	0.4	5.7	2.9	0.7	0.4	0.0	10.0
Total Del/Veh (s)	44.4	35.1	29.5	7.9	13.3	6.8	25.9
Avg Speed (mph)	13	15	4	8	16	19	13
Vehicles Entered	28	568	343	318	97	13	1367

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	2.4	0.0	0.0	0.1	2.5
Denied Del/Veh (s)	19.3	0.1	0.1	0.2	2.2
Total Delay (hr)	13.3	4.0	1.7	2.5	21.6
Total Del/Veh (s)	104.9	10.9	13.4	4.8	18.7
Avg Speed (mph)	4	17	16	16	12
Vehicles Entered	444	1314	460	1887	4105

Total Network Performance

Denied Delay (hr)	814.4
Denied Del/Veh (s)	331.8
Total Delay (hr)	531.7
Total Del/Veh (s)	239.0
Avg Speed (mph)	9
Vehicles Entered	7326

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB
Directions Served	L	T	T	T	TR	L	LT	T	T	TR	R	L
Maximum Queue (ft)	31	50	40	26	196	225	314	290	214	214	219	182
Average Queue (ft)	3	12	8	3	73	222	286	202	66	121	123	103
95th Queue (ft)	18	36	28	15	145	237	305	329	147	192	198	177
Link Distance (ft)		314	314	314	314		261	261	261	261	261	
Upstream Blk Time (%)							48	9	0	0	0	
Queuing Penalty (veh)							188	35	1	0	0	
Storage Bay Dist (ft)	200					175						200
Storage Blk Time (%)						37	64					1
Queuing Penalty (veh)						188	215					3

Intersection: 8: University Avenue & Donohoe Street

Movement	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	T	R	L	T	T	R
Maximum Queue (ft)	183	240	253	174	299	1808	1804	300
Average Queue (ft)	87	106	107	91	54	1071	1076	223
95th Queue (ft)	174	193	189	157	210	2071	2057	420
Link Distance (ft)		258	258			2268	2268	
Upstream Blk Time (%)	0	0	0			6	6	
Queuing Penalty (veh)	0	1	1			0	0	
Storage Bay Dist (ft)	200			125	250			250
Storage Blk Time (%)	1	0	3	1		62	62	0
Queuing Penalty (veh)	4	1	17	3		11	78	0

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	2345	2352	250	370	374	323	153	250	275	848	840
Average Queue (ft)	1783	1835	249	335	336	102	85	234	260	465	445
95th Queue (ft)	2679	2657	261	387	383	210	131	281	305	751	745
Link Distance (ft)	3124	3124		336	336	336				939	939
Upstream Blk Time (%)	1	1		7	8	1				0	0
Queuing Penalty (veh)	0	0		44	51	4				2	2
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		82	50			0	0	4	18	4	
Queuing Penalty (veh)		225	224			0	0	32	161	45	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	L	TR	L	T	R	L	T	TR	L	T
Maximum Queue (ft)	174	177	162	161	58	499	100	225	3678	290	282	352
Average Queue (ft)	112	124	93	94	9	266	96	90	2316	288	138	227
95th Queue (ft)	183	183	164	162	35	524	112	233	4608	301	238	327
Link Distance (ft)	154	154	154	154		645			5033		336	336
Upstream Blk Time (%)	3	5	1	1		3			5		0	0
Queuing Penalty (veh)	5	8	2	2		0			0		0	2
Storage Bay Dist (ft)					50		50	175		240		
Storage Blk Time (%)					0	26	61	0	46	58		
Queuing Penalty (veh)					1	92	56	0	274	335		

Intersection: 10: University Avenue & Woodland Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	336	301
Average Queue (ft)	236	123
95th Queue (ft)	325	246
Link Distance (ft)	336	336
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	1	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: NB US 101 On-ramp/Private DWY & Donohoe Street

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	SB
Directions Served	LT	T	T	TR	L	T	T	T	TR	LTR
Maximum Queue (ft)	296	426	450	472	321	135	58	41	118	179
Average Queue (ft)	42	123	418	443	152	23	17	7	43	159
95th Queue (ft)	146	382	499	458	265	70	46	30	91	202
Link Distance (ft)	424	424	424	424	314	314	314	314	314	172
Upstream Blk Time (%)	0	2	47	99	0					83
Queuing Penalty (veh)	0	0	0	0	1					0
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	T	T	TR	L	L	T	R
Maximum Queue (ft)	65	111	161	177	743	708	618	286	525	1056	1057	222
Average Queue (ft)	15	38	95	117	520	479	296	181	519	1030	1017	69
95th Queue (ft)	43	98	149	164	788	756	644	271	538	1082	1216	177
Link Distance (ft)	261	261	261	261	3059	3059	3059			1022	1022	
Upstream Blk Time (%)										90	80	
Queuing Penalty (veh)										0	0	
Storage Bay Dist (ft)								245	475			200
Storage Blk Time (%)							1	2	93	91		1
Queuing Penalty (veh)							3	5	288	283		1

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	SB
Directions Served	R
Maximum Queue (ft)	36
Average Queue (ft)	14
95th Queue (ft)	39
Link Distance (ft)	204
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	250	483	158	191	125	62	106
Average Queue (ft)	152	222	105	142	101	15	30
95th Queue (ft)	269	364	169	215	159	46	74
Link Distance (ft)		2014	154	154		998	998
Upstream Blk Time (%)			1	8			
Queuing Penalty (veh)			3	32			
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	1	12		34	1		
Queuing Penalty (veh)	2	38		66	4		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	837	483	463	283	276
Average Queue (ft)	439	44	100	47	53
95th Queue (ft)	855	243	298	205	201
Link Distance (ft)	846	939	939	258	258
Upstream Blk Time (%)	10			1	0
Queuing Penalty (veh)	0			8	6
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 3056

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	University Ave/Bayfront Expy	Signalized	HCM 6th Edition	NB Right	1.425	267.0	F
11	Willow Rd/NB US-101 Ramps	Signalized	HCM 6th Edition	WB Right	0.830	28.1	C
12	Willow Rd/SB US-101 Ramps	Signalized	HCM 6th Edition	EB Right	0.863	17.6	B
13	Willow Rd/Bay Rd	Signalized	HCM 6th Edition	NB Left	0.837	26.8	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: University Ave/Bayfront Expy

Control Type:	Signalized	Delay (sec / veh):	267.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.425

Intersection Setup

Name	University Ave		Bayfront Expy		Bayfront Expy	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	2	0	1	2	0
Entry Pocket Length [ft]	175.00	1260.00	100.00	430.00	830.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	University Ave		Bayfront Expy		Bayfront Expy	
Base Volume Input [veh/h]	67	2427	4608	54	622	1143
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	2427	4608	54	622	1143
Peak Hour Factor	0.9700	0.9700	0.9700	0.9700	0.9700	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	626	1188	14	160	295
Total Analysis Volume [veh/h]	69	2502	4751	56	641	1178
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		1		0	
v_ci, Inbound Pedestrian Volume crossing mi	1		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	8		23		6	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	240
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	198.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Split	Overlap	Permissive	Permissive	Protected	Permissive
Signal Group	4	4	6	0	5	2
Auxiliary Signal Groups		4,5				
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	12	12	10	0	11	10
Maximum Green [s]	15	15	175	0	50	60
Amber [s]	3.0	3.0	5.0	0.0	3.0	5.4
All red [s]	1.0	1.0	1.0	0.0	0.5	0.5
Split [s]	38	38	146	0	56	202
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	5	5	5	0	0	10
Pedestrian Clearance [s]	29	29	35	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	2.0	4.0	0.0	1.5	3.9
Minimum Recall	No	No	Yes		No	Yes
Maximum Recall	No	No	No		No	No
Pedestrian Recall	No	No	No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	240	240	240	240	240	240
L, Total Lost Time per Cycle [s]	4.00	3.50	6.00	6.00	3.50	5.90
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	0.00	4.00	4.00	1.50	3.90
g_i, Effective Green Time [s]	34	90	140	140	52	196
g / C, Green / Cycle	0.14	0.38	0.58	0.58	0.22	0.82
(v / s)_i Volume / Saturation Flow Rate	0.02	0.60	0.93	0.04	0.19	0.23
s, saturation flow rate [veh/h]	3459	4173	5094	1556	3459	5094
c, Capacity [veh/h]	490	1571	2973	909	756	4163
d1, Uniform Delay [s]	90.23	74.27	49.96	21.56	89.98	5.22
k, delay calibration	0.04	0.50	0.50	0.50	0.04	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.05	269.65	270.66	0.13	1.05	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	1.59	1.60	0.06	0.85	0.28
d, Delay for Lane Group [s/veh]	90.28	343.93	320.62	21.69	91.03	5.39
Lane Group LOS	F	F	F	C	F	A
Critical Lane Group	No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	1.91	71.30	131.57	1.42	19.12	4.36
50th-Percentile Queue Length [ft/ln]	47.71	1782.50	3289.19	35.60	477.90	108.90
95th-Percentile Queue Length [veh/ln]	3.43	109.38	202.29	2.56	26.29	7.78
95th-Percentile Queue Length [ft/ln]	85.87	2734.53	5057.25	64.07	657.16	194.47

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	90.28	343.93	320.62	21.69	91.03	5.39
Movement LOS	F	F	F	C	F	A
d_A, Approach Delay [s/veh]	337.12		317.13		35.57	
Approach LOS	F		F		D	
d_I, Intersection Delay [s/veh]	267.03					
Intersection LOS	F					
Intersection V/C	1.425					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	2779.77	0.00	0.00
d_p, Pedestrian Delay [s]	111.17	0.00	111.17
l_p,int, Pedestrian LOS Score for Intersection	3.171	0.000	4.614
Crosswalk LOS	C	F	E
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	283	1167	1634
d_b, Bicycle Delay [s]	88.76	21.08	4.03
l_b,int, Bicycle LOS Score for Intersection	1.560	4.203	2.560
Bicycle LOS	A	D	B

Sequence

Ring 1	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 11: Willow Rd/NB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	28.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.830

Intersection Setup

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	405.00	100.00	100.00	100.00	175.00	100.00	195.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			30.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No						No		
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			NB-10			NB US-101 Off-ramp		
Base Volume Input [veh/h]	0	1321	205	0	1936	647	0	0	0	444	0	998
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1321	205	0	1936	647	0	0	0	444	0	998
Peak Hour Factor	1.0000	0.9200	0.9200	1.0000	0.9200	0.9200	1.0000	1.0000	1.0000	0.9200	1.0000	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	359	56	0	526	176	0	0	0	121	0	271
Total Analysis Volume [veh/h]	0	1436	223	0	2104	703	0	0	0	483	0	1085
Presence of On-Street Parking	No		No	No		No				No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	9			0			0			2		
v_ci, Inbound Pedestrian Volume crossing mi	2			0			0			9		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	7			17			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	160
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	2.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	0	0	0	3	0	3
Auxiliary Signal Groups			3,6			2,3						
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	4	4	0	4	4	0	0	0	4	0	4
Maximum Green [s]	0	35	35	0	35	35	0	0	0	24	0	24
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	0.0	0.0	0.0	3.0	0.0	3.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0
Split [s]	0	81	81	0	81	81	0	0	0	79	0	79
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	30	30	0	7	7	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No					No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	0.0	0.0	0.0	3.0	0.0	3.0
Minimum Recall		Yes	Yes		Yes	Yes				No		
Maximum Recall		No	No		No	No				No		
Pedestrian Recall		No	No		No	No				No		
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R		L	R
C, Cycle Length [s]	160	160	160	160		160	160
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00		5.00	5.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00		0.00	0.00
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00		3.00	3.00
g_i, Effective Green Time [s]	88	155	88	155		63	63
g / C, Green / Cycle	0.55	0.97	0.55	0.97		0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.28	0.14	0.41	0.45		0.14	0.39
s, saturation flow rate [veh/h]	5094	1569	5094	1547		3459	2813
c, Capacity [veh/h]	2802	1519	2802	1499		1360	1106
d1, Uniform Delay [s]	22.56	0.09	27.60	0.14		34.25	47.96
k, delay calibration	0.50	0.04	0.50	0.50		0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00		1.00	1.00
d2, Incremental Delay [s]	0.67	0.02	1.91	1.06		0.06	4.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00		0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00		1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00		1.00	1.00

Lane Group Results

X, volume / capacity	0.51	0.15	0.75	0.47		0.36	0.98
d, Delay for Lane Group [s/veh]	23.23	0.11	29.51	1.20		34.30	52.39
Lane Group LOS	C	A	C	A		C	D
Critical Lane Group	No	No	Yes	No		No	Yes
50th-Percentile Queue Length [veh/ln]	11.44	0.01	20.68	0.44		6.71	21.74
50th-Percentile Queue Length [ft/ln]	285.95	0.17	517.10	10.99		167.67	543.61
95th-Percentile Queue Length [veh/ln]	16.98	0.01	28.14	0.79		10.95	29.39
95th-Percentile Queue Length [ft/ln]	424.61	0.31	703.57	19.78		273.85	734.79

Movement, Approach, & Intersection Results

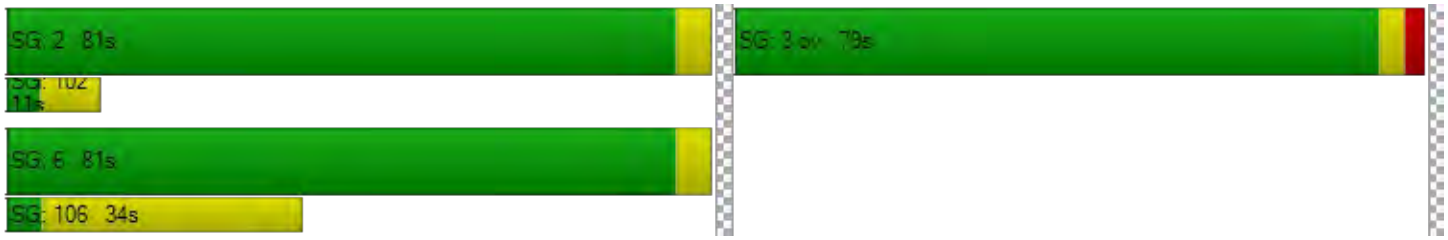
d_M, Delay for Movement [s/veh]	0.00	23.23	0.11	0.00	29.51	1.20	0.00	0.00	0.00	34.30	0.00	52.39
Movement LOS		C	A		C	A				C		D
d_A, Approach Delay [s/veh]	20.13			22.42			0.00			46.82		
Approach LOS	C			C			A			D		
d_I, Intersection Delay [s/veh]	28.13											
Intersection LOS	C											
Intersection V/C	0.830											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	245.43
d_p, Pedestrian Delay [s]	0.00	0.00	72.20	72.20
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.138	2.736
Crosswalk LOS	F	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	961	961	0	925
d_b, Bicycle Delay [s]	21.66	21.77	80.00	23.11
l_b,int, Bicycle LOS Score for Intersection	2.472	3.103	4.132	1.560
Bicycle LOS	B	C	D	A

Sequence

Ring 1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 12: Willow Rd/SB US-101 Ramps

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.863

Intersection Setup

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	2	0	0	0	1	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	300.00	100.00	100.00	100.00	150.00	100.00	170.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			35.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No					
Crosswalk	No			No			Yes			Yes		

Volumes

Name	Willow Rd			Willow Rd			SB US-101 Off-Ramp			SB-10		
Base Volume Input [veh/h]	0	1171	334	0	1290	1090	356	0	552	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1171	334	0	1290	1090	356	0	552	0	0	0
Peak Hour Factor	1.0000	0.8800	0.8800	1.0000	0.8800	0.8800	0.8800	1.0000	0.8800	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	333	95	0	366	310	101	0	157	0	0	0
Total Analysis Volume [veh/h]	0	1331	380	0	1466	1239	405	0	627	0	0	0
Presence of On-Street Parking	No		No	No		No	No		No			
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			3			5			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			5			3			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	8			18			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	160
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	99.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Overlap	Permiss	Permiss	Overlap	Split	Permiss	Split	Permiss	Permiss	Permiss
Signal Group	0	6	6	0	2	2	4	0	0	0	0	0
Auxiliary Signal Groups			4,6			2,4						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	4	4	0	4	4	4	0	0	0	0	0
Maximum Green [s]	0	35	35	0	35	35	50	0	0	0	0	0
Amber [s]	0.0	4.1	4.1	0.0	4.1	4.1	3.0	0.0	0.0	0.0	0.0	0.0
All red [s]	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Split [s]	0	79	79	0	79	79	81	0	0	0	0	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk [s]	0	4	4	0	4	4	0	0	0	0	0	0
Pedestrian Clearance [s]	0	7	7	0	32	32	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No					
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.1	2.1	0.0	2.1	2.1	3.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall		Yes	Yes		Yes	Yes	No					
Maximum Recall		No	No		No	No	No					
Pedestrian Recall		No	No		No	No	No					
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	R	L	R	
C, Cycle Length [s]	160	160	160	160	160	160	
L, Total Lost Time per Cycle [s]	4.10	5.00	4.10	5.00	5.00	5.00	
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	
l2, Clearance Lost Time [s]	2.10	0.00	2.10	0.00	3.00	3.00	
g_i, Effective Green Time [s]	114	155	114	155	37	37	
g / C, Green / Cycle	0.71	0.97	0.71	0.97	0.23	0.23	
(v / s)_i Volume / Saturation Flow Rate	0.26	0.24	0.29	0.80	0.12	0.22	
s, saturation flow rate [veh/h]	5094	1553	5094	1553	3459	2813	
c, Capacity [veh/h]	3622	1504	3622	1504	802	653	
d1, Uniform Delay [s]	9.03	0.10	9.37	0.35	53.41	60.67	
k, delay calibration	0.50	0.04	0.50	0.50	0.04	0.04	
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	
d2, Incremental Delay [s]	0.29	0.03	0.34	5.26	0.18	4.34	
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	

Lane Group Results

X, volume / capacity	0.37	0.25	0.40	0.82	0.50	0.96	
d, Delay for Lane Group [s/veh]	9.32	0.14	9.70	5.61	53.59	65.01	
Lane Group LOS	A	A	A	A	D	E	
Critical Lane Group	No	No	No	Yes	No	Yes	
50th-Percentile Queue Length [veh/ln]	5.94	0.01	6.79	2.20	7.13	12.90	
50th-Percentile Queue Length [ft/ln]	148.61	0.34	169.84	54.89	178.24	322.43	
95th-Percentile Queue Length [veh/ln]	9.94	0.02	11.07	3.95	11.51	18.79	
95th-Percentile Queue Length [ft/ln]	248.57	0.61	276.70	98.80	287.72	469.67	

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	9.32	0.14	0.00	9.70	5.61	53.59	0.00	65.01	0.00	0.00	0.00
Movement LOS		A	A		A	A	D		E			
d_A, Approach Delay [s/veh]	7.28			7.83			60.53			0.00		
Approach LOS	A			A			E			A		
d_I, Intersection Delay [s/veh]	17.64											
Intersection LOS	B											
Intersection V/C	0.863											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	8.0	8.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	72.20	72.20
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.845	1.823
Crosswalk LOS	F	F	C	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	936	936	950	0
d_b, Bicycle Delay [s]	22.72	22.84	22.05	80.00
l_b,int, Bicycle LOS Score for Intersection	2.501	3.047	1.560	4.132
Bicycle LOS	B	C	A	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 13: Willow Rd/Bay Rd

Control Type:	Signalized	Delay (sec / veh):	26.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.837

Intersection Setup

Name	Willow Rd		Willow Rd			
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1
Entry Pocket Length [ft]	80.00	100.00	100.00	25.00	100.00	240.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Willow Rd		Willow Rd			
Base Volume Input [veh/h]	17	1105	1463	299	315	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	1105	1463	299	315	45
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	329	435	89	94	13
Total Analysis Volume [veh/h]	20	1315	1742	356	375	54
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		4		2	
v_ci, Inbound Pedestrian Volume crossing mi	0		2		4	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	9		19		6	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	160
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	50.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	9.00

Phasing & Timing

Control Type	Protected	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	5	2	6	0	4	0
Auxiliary Signal Groups						
Lead / Lag	Lag	-	-	-	Lead	-
Minimum Green [s]	9	10	8	0	10	0
Maximum Green [s]	16	36	36	0	38	0
Amber [s]	3.0	4.5	4.5	0.0	3.2	0.0
All red [s]	0.5	1.0	1.0	0.0	1.0	0.0
Split [s]	13	82	69	0	78	0
Vehicle Extension [s]	3.0	5.0	3.0	0.0	3.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	31	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	1.5	3.5	3.5	0.0	2.2	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	Yes	Yes		No	
Pedestrian Recall	No	No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	R	L	R
C, Cycle Length [s]	160	160	160	160	160	160
L, Total Lost Time per Cycle [s]	3.50	5.50	5.50	5.50	4.20	4.20
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.50	3.50	3.50	3.50	2.20	2.20
g_i, Effective Green Time [s]	5	111	102	102	40	40
g / C, Green / Cycle	0.03	0.69	0.64	0.64	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.01	0.41	0.54	0.26	0.23	0.04
s, saturation flow rate [veh/h]	1603	3204	3204	1380	1603	1406
c, Capacity [veh/h]	53	2215	2038	878	398	349
d1, Uniform Delay [s]	75.67	12.93	23.19	14.09	58.99	46.96
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.35	1.18	4.83	1.39	11.22	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.59	0.85	0.41	0.94	0.15
d, Delay for Lane Group [s/veh]	80.02	14.11	28.03	15.48	70.21	47.17
Lane Group LOS	F	B	C	B	E	D
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.87	12.21	26.74	6.64	16.17	1.73
50th-Percentile Queue Length [ft/ln]	21.78	305.16	668.40	165.98	404.36	43.30
95th-Percentile Queue Length [veh/ln]	1.57	17.94	35.22	10.86	22.77	3.12
95th-Percentile Queue Length [ft/ln]	39.20	448.41	880.40	271.62	569.25	77.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	80.02	14.11	28.03	15.48	70.21	47.17
Movement LOS	F	B	C	B	E	D
d_A, Approach Delay [s/veh]	15.10		25.90		67.31	
Approach LOS	B		C		E	
d_I, Intersection Delay [s/veh]	26.77					
Intersection LOS	C					
Intersection V/C	0.837					

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	571.56
d_p, Pedestrian Delay [s]	0.00	0.00	69.38
l_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	2.229
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	956	794	923
d_b, Bicycle Delay [s]	21.89	29.38	23.29
l_b,int, Bicycle LOS Score for Intersection	2.661	3.290	1.560
Bicycle LOS	B	C	A

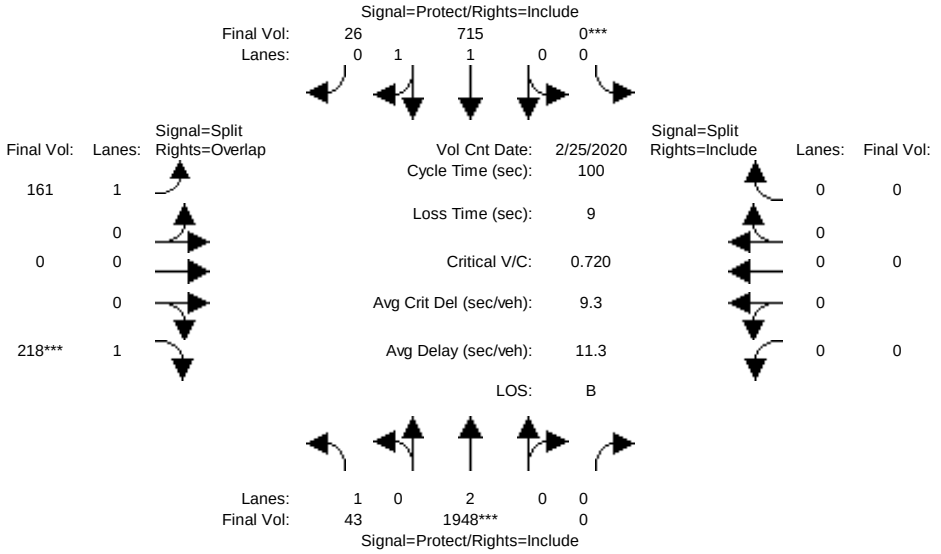
Sequence

Ring 1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative Plus Project PM

Intersection #2: University Avenue/O'Brien Drive



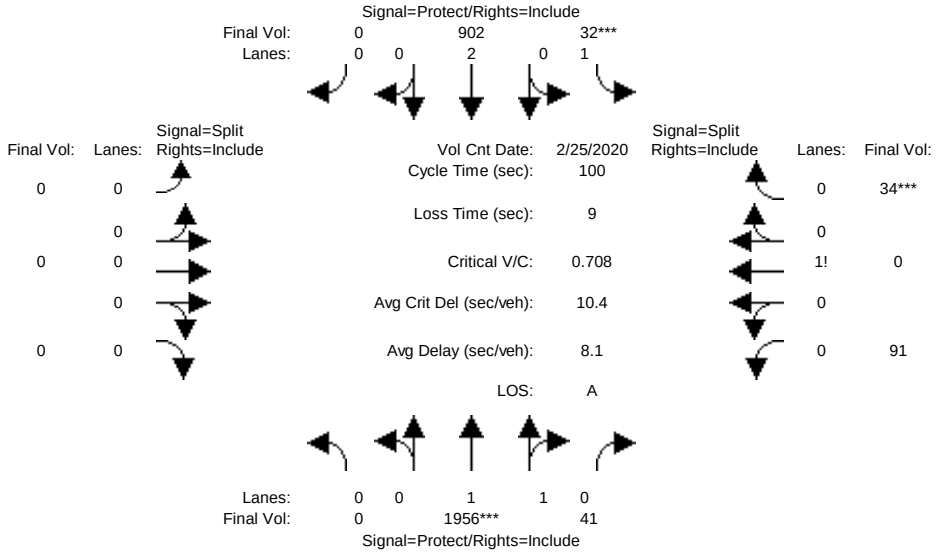
Street Name:	University Avenue						O'Brien Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	10	10	0	8	8	6	6	6	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	39	1828	0	0	668	24	151	0	204	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	1828	0	0	668	24	151	0	204	0	0	0
Added Vol:	1	3	0	0	4	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	1831	0	0	672	24	151	0	205	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	43	1948	0	0	715	26	161	0	218	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	1948	0	0	715	26	161	0	218	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	1948	0	0	715	26	161	0	218	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.94	0.92	1.00	0.82	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.93	0.07	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3468	124	1745	0	1562	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.54	0.00	0.00	0.21	0.21	0.09	0.00	0.14	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.12	0.77	0.00	0.00	0.64	0.64	0.14	0.00	0.27	0.00	0.00	0.00
Volume/Cap:	0.19	0.70	0.00	0.00	0.32	0.32	0.65	0.00	0.52	0.00	0.00	0.00
Uniform Del:	39.2	5.8	0.0	0.0	8.0	8.0	40.6	0.0	31.3	0.0	0.0	0.0
IncremntDel:	0.4	0.8	0.0	0.0	0.1	0.1	5.9	0.0	1.2	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	39.6	6.7	0.0	0.0	8.1	8.1	46.5	0.0	32.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.6	6.7	0.0	0.0	8.1	8.1	46.5	0.0	32.5	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	D	A	C	A	A	A
HCM2kAvgQ:	28	392	0	0	131	131	146	0	155	0	0	0

Note: Queue reported is the distance per lane in feet.

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Intersection #3: University Avenue/Notre Dame Avenue

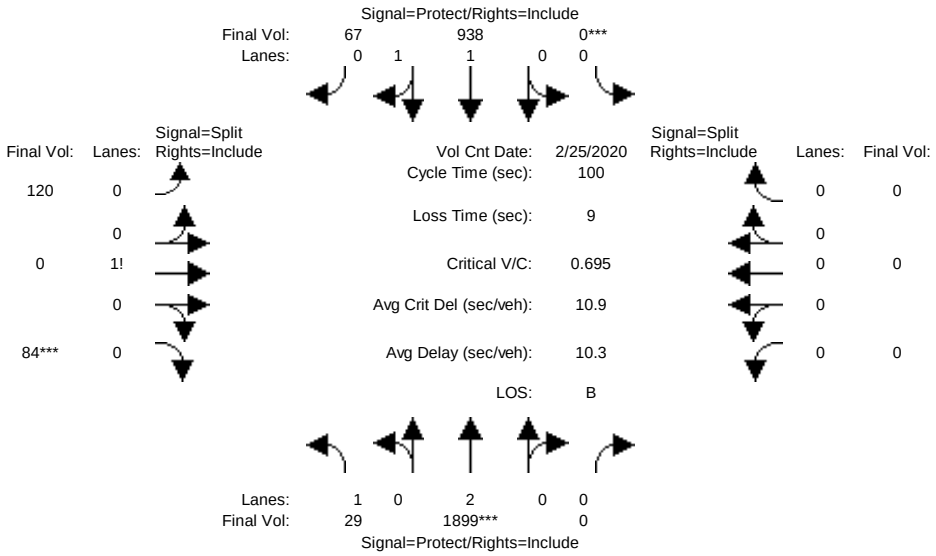


Street Name:	University Avenue						Notre Dame Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	8	8	4	8	0	0	0	0	4	4	4
Y+R:	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	0	1835	38	30	842	0	0	0	0	85	0	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1835	38	30	842	0	0	0	0	85	0	32
Added Vol:	0	4	1	0	6	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1839	39	30	848	0	0	0	0	86	0	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	1956	41	32	902	0	0	0	0	91	0	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1956	41	32	902	0	0	0	0	91	0	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1956	41	32	902	0	0	0	0	91	0	34
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.94	0.95	0.95	1.00	1.00	1.00	1.00	0.93	1.00	0.93
Lanes:	0.00	1.96	0.04	1.00	2.00	0.00	0.00	0.00	0.00	0.73	0.00	0.27
Final Sat.:	0	3524	75	1805	3610	0	0	0	0	1287	0	479
Capacity Analysis Module:												
Vol/Sat:	0.00	0.56	0.56	0.02	0.25	0.00	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.77	0.77	0.04	0.81	0.00	0.00	0.00	0.00	0.10	0.00	0.10
Volume/Cap:	0.00	0.72	0.72	0.44	0.31	0.00	0.00	0.00	0.00	0.72	0.00	0.72
Uniform Del:	0.0	5.9	5.9	46.9	2.4	0.0	0.0	0.0	0.0	43.7	0.0	43.7
IncremntDel:	0.0	0.9	0.9	4.3	0.1	0.0	0.0	0.0	0.0	13.6	0.0	13.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	6.8	6.8	51.2	2.4	0.0	0.0	0.0	0.0	57.3	0.0	57.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.8	6.8	51.2	2.4	0.0	0.0	0.0	0.0	57.3	0.0	57.3
LOS by Move:	A	A	A	D	A	A	A	A	A	E	A	E
HCM2kAvgQ:	0	413	412	24	93	0	0	0	0	133	0	133

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Intersection #4: University Avenue/Kavanaugh Drive

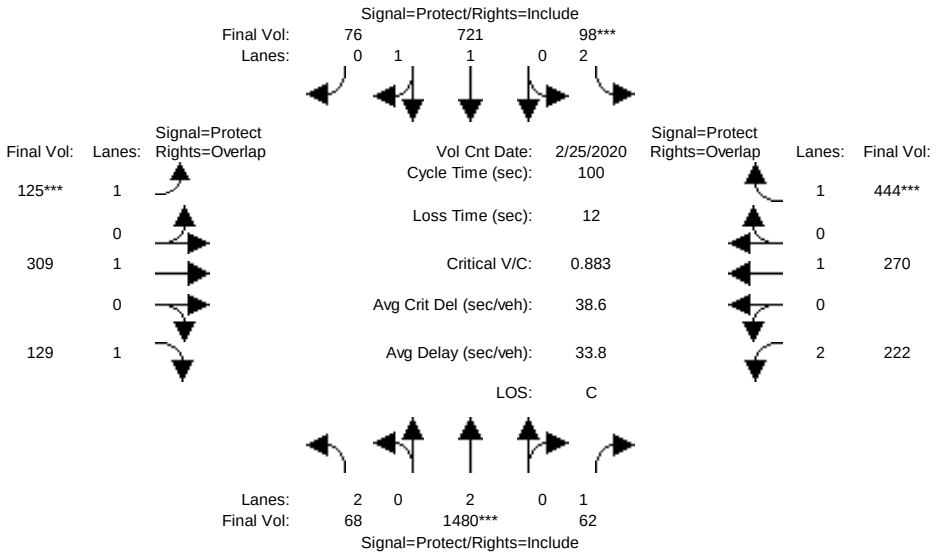


Street Name:	University Avenue						Kavanaugh Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	0	0	8	8	4	0	4	0	0	0
Y+R:	3.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	3.5	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	26	1761	0	0	865	62	112	0	77	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	1761	0	0	865	62	112	0	77	0	0	0
Added Vol:	1	5	0	0	7	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	1766	0	0	872	62	112	0	78	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	29	1899	0	0	938	67	120	0	84	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	1899	0	0	938	67	120	0	84	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	1899	0	0	938	67	120	0	84	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.94	0.93	1.01	1.00	1.01	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.87	0.13	0.59	0.00	0.41	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3335	237	1130	0	787	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.53	0.00	0.00	0.28	0.28	0.11	0.00	0.11	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.09	0.76	0.00	0.00	0.66	0.66	0.15	0.00	0.15	0.00	0.00	0.00
Volume/Cap:	0.17	0.70	0.00	0.00	0.42	0.42	0.70	0.00	0.70	0.00	0.00	0.00
Uniform Del:	41.7	6.2	0.0	0.0	7.9	7.9	40.1	0.0	40.1	0.0	0.0	0.0
IncremntDel:	0.5	0.8	0.0	0.0	0.1	0.1	7.1	0.0	7.1	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	42.2	7.0	0.0	0.0	8.1	8.1	47.2	0.0	47.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.2	7.0	0.0	0.0	8.1	8.1	47.2	0.0	47.2	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	24	411	0	0	187	186	183	0	183	0	0	0

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Intersection #5: University Avenue/Bay Road

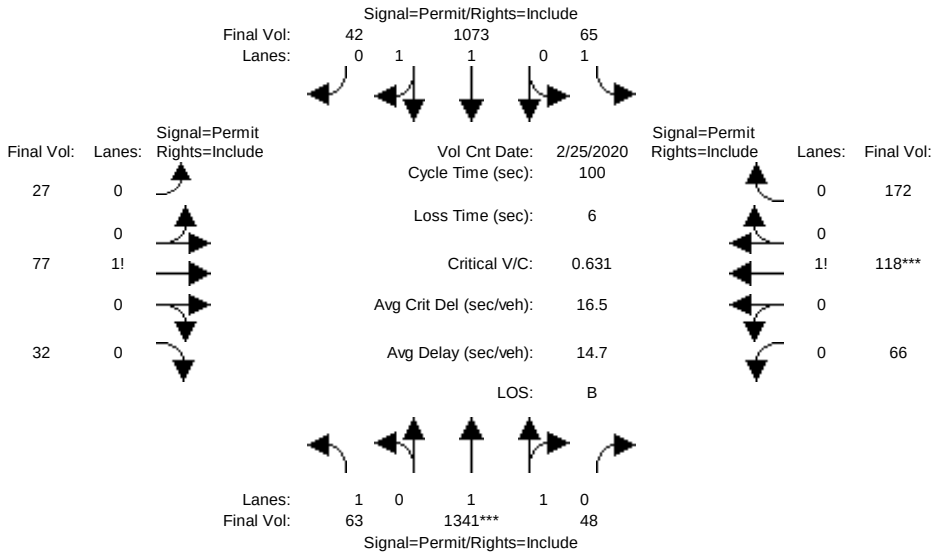


Street Name:	University Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	60	1341	52	89	648	69	114	281	114	197	246	404
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	1341	52	89	648	69	114	281	114	197	246	404
Added Vol:	2	6	4	0	8	0	0	0	3	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	1347	56	89	656	69	114	281	117	202	246	404
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	68	1480	62	98	721	76	125	309	129	222	270	444
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	1480	62	98	721	76	125	309	129	222	270	444
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	1480	62	98	721	76	125	309	129	222	270	444
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.75	0.92	0.94	0.93	0.95	1.00	0.78	0.92	1.00	0.78
Lanes:	2.00	2.00	1.00	2.00	1.81	0.19	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3502	3610	1417	3502	3217	338	1805	1900	1487	3502	1900	1491
Capacity Analysis Module:												
Vol/Sat:	0.02	0.41	0.04	0.03	0.22	0.22	0.07	0.16	0.09	0.06	0.14	0.30
Crit Moves:		****		****			****					****
Green/Cycle:	0.08	0.47	0.47	0.04	0.43	0.43	0.08	0.27	0.35	0.10	0.29	0.33
Volume/Cap:	0.25	0.88	0.09	0.70	0.52	0.52	0.88	0.61	0.25	0.61	0.48	0.89
Uniform Del:	43.5	24.1	14.8	47.4	20.9	20.9	45.6	32.0	23.5	42.8	29.1	31.6
IncremntDel:	0.5	5.6	0.1	14.4	0.3	0.3	41.5	2.1	0.3	2.9	0.7	18.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	44.0	29.7	14.9	61.8	21.2	21.2	87.1	34.1	23.7	45.7	29.7	49.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.0	29.7	14.9	61.8	21.2	21.2	87.1	34.1	23.7	45.7	29.7	49.7
LOS by Move:	D	C	B	E	C	C	F	C	C	D	C	D
HCM2kAvgQ:	24	563	25	72	241	238	161	224	72	110	177	413

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Intersection #6: University Avenue/Runnymede Street

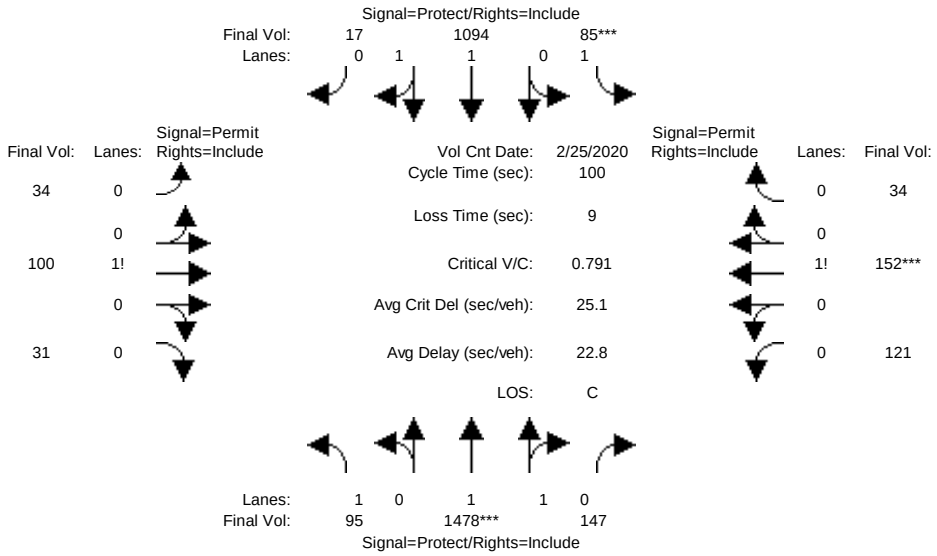


Street Name:	University Avenue						Runnymede Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	8	8	8	8	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	54	1168	41	57	928	37	24	68	27	57	104	151
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	1168	41	57	928	37	24	68	27	57	104	151
Added Vol:	1	12	1	0	16	0	0	0	1	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	1180	42	57	944	37	24	68	28	58	104	151
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	63	1341	48	65	1073	42	27	77	32	66	118	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	1341	48	65	1073	42	27	77	32	66	118	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	63	1341	48	65	1073	42	27	77	32	66	118	172
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.19	0.95	0.94	0.12	0.94	0.94	0.88	0.99	0.87	0.86	1.03	0.85
Lanes:	1.00	1.93	0.07	1.00	1.92	0.08	0.21	0.54	0.25	0.20	0.29	0.51
Final Sat.:	361	3468	123	228	3453	135	356	1010	416	319	572	831
Capacity Analysis Module:												
Vol/Sat:	0.17	0.39	0.39	0.28	0.31	0.31	0.08	0.08	0.08	0.21	0.21	0.21
Crit Moves:		****									****	
Green/Cycle:	0.61	0.61	0.61	0.61	0.61	0.61	0.33	0.33	0.33	0.33	0.33	0.33
Volume/Cap:	0.28	0.63	0.63	0.46	0.51	0.51	0.23	0.23	0.23	0.63	0.63	0.63
Uniform Del:	9.1	12.2	12.2	10.5	10.9	10.9	24.5	24.5	24.5	28.5	28.5	28.5
IncremntDel:	0.7	0.6	0.6	2.4	0.2	0.2	0.2	0.2	0.2	2.3	2.3	2.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	9.8	12.8	12.8	12.9	11.1	11.1	24.7	24.7	24.7	30.8	30.8	30.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.8	12.8	12.8	12.9	11.1	11.1	24.7	24.7	24.7	30.8	30.8	30.8
LOS by Move:	A	B	B	B	B	B	C	C	C	C	C	C
HCM2kAvgQ:	22	338	338	28	246	246	72	81	72	238	279	238

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Intersection #7: University Avenue/Bell Street



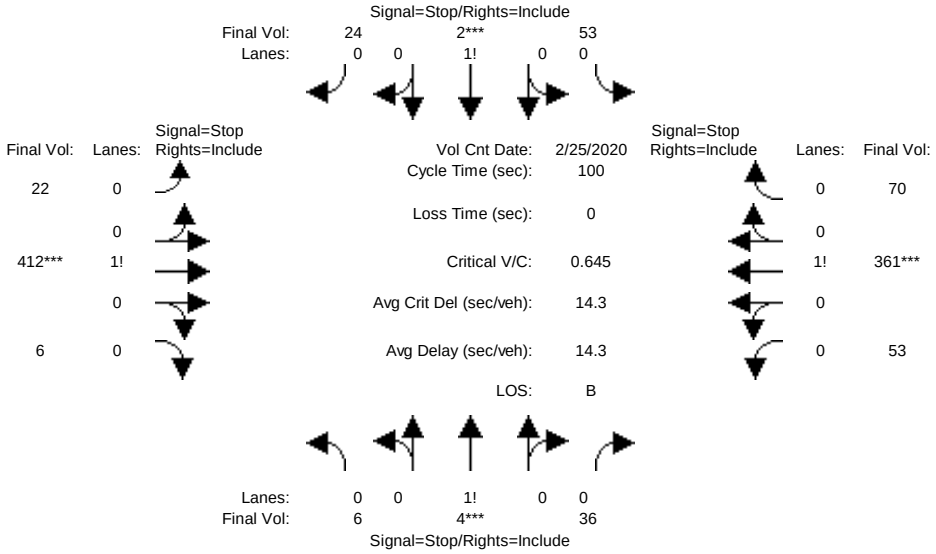
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	4	8	8	4	8	8	4	4	4	4	4	4
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	81	1257	125	73	922	15	29	86	26	103	131	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	1257	125	73	922	15	29	86	26	103	131	29
Added Vol:	1	14	1	0	19	0	0	0	1	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	1271	126	73	941	15	29	86	27	104	131	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	95	1478	147	85	1094	17	34	100	31	121	152	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	1478	147	85	1094	17	34	100	31	121	152	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	1478	147	85	1094	17	34	100	31	121	152	34
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.95	0.87	0.87	0.86	0.74	0.75	0.74
Lanes:	1.00	1.82	0.18	1.00	1.97	0.03	0.20	0.61	0.19	0.39	0.50	0.11
Final Sat.:	1805	3241	321	1805	3546	57	336	996	313	557	702	155
Capacity Analysis Module:												
Vol/Sat:	0.05	0.46	0.46	0.05	0.31	0.31	0.10	0.10	0.10	0.22	0.22	0.22
Crit Moves:		****		****							****	
Green/Cycle:	0.09	0.58	0.58	0.06	0.54	0.54	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.57	0.79	0.79	0.79	0.57	0.57	0.37	0.37	0.37	0.79	0.79	0.79
Uniform Del:	43.4	16.5	16.5	46.4	15.1	15.1	29.3	29.3	29.3	33.6	33.6	33.6
IncremntDel:	4.6	2.2	2.2	31.7	0.4	0.4	0.5	0.5	0.5	10.6	10.6	10.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	48.0	18.7	18.7	78.2	15.5	15.5	29.8	29.8	29.8	44.2	44.2	44.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.0	18.7	18.7	78.2	15.5	15.5	29.8	29.8	29.8	44.2	44.2	44.2
LOS by Move:	D	B	B	E	B	B	C	C	C	D	D	D
HCM2kAvgQ:	93	547	546	71	289	289	107	107	106	271	271	270

Note: Queue reported is the distance per lane in feet.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumulative Plus Project PM

Intersection #14: Bay Road/Newbridge Street/Ralmar Avenue



Street Name:	Bay Road/Ralmar Avenue						Bay Road/Newbridge Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 5:00PM												
Base Vol:	5	3	30	41	2	20	18	342	5	44	300	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	3	30	41	2	20	18	342	5	44	300	56
Added Vol:	0	0	0	3	0	0	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	3	30	44	2	20	18	342	5	44	300	58
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
PHF Volume:	6	4	36	53	2	24	22	412	6	53	361	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	4	36	53	2	24	22	412	6	53	361	70
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	4	36	53	2	24	22	412	6	53	361	70
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.13	0.08	0.79	0.67	0.03	0.30	0.05	0.94	0.01	0.11	0.75	0.14
Final Sat.:	72	43	430	355	16	162	36	687	10	82	561	108
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.15	0.15	0.15	0.60	0.60	0.60	0.64	0.64	0.64
Crit Moves:		****			****			****			****	
Delay/Veh:	9.1	9.1	9.1	9.8	9.8	9.8	14.5	14.5	14.5	15.5	15.5	15.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.1	9.1	9.1	9.8	9.8	9.8	14.5	14.5	14.5	15.5	15.5	15.5
LOS by Move:	A	A	A	A	A	A	B	B	B	C	C	C
ApproachDel:	9.1			9.8			14.5			15.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.1			9.8			14.5			15.5		
LOS by Appr:	A			A			B			C		
AllWayAvgQ:	1.6	1.6	1.6	3.3	3.3	3.3	33.8	33.8	33.8	40.6	40.6	40.6

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #14 Bay Road/Newbridge Street/Ralmar Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Initial Vol:	5	3	30	44	2	20	18	342	5	44	300	58

Major Street Volume: 767
Minor Approach Volume: 66
Minor Approach Volume Threshold: 290

SIGNAL WARRANT DISCLAIMER

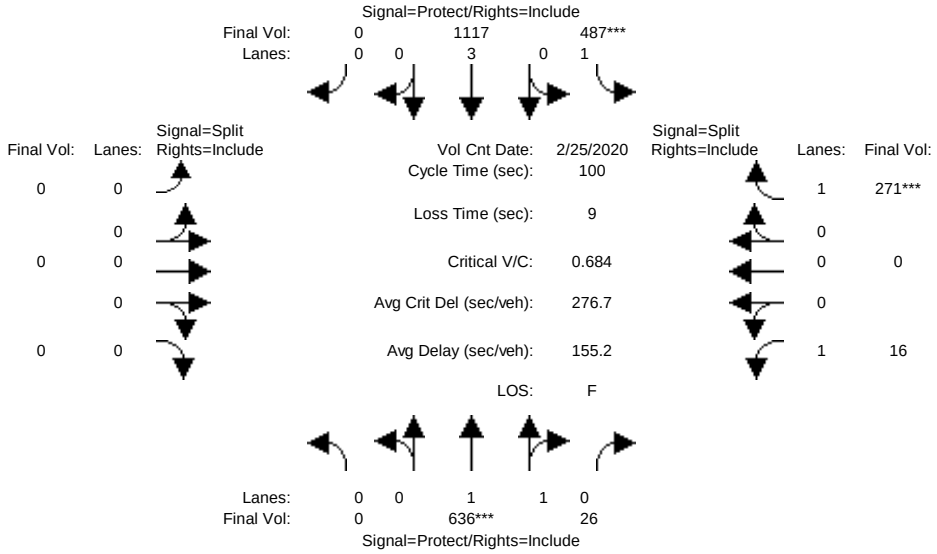
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative Plus Project PM

Intersection #17: Donohoe Street/E Bayshore Road

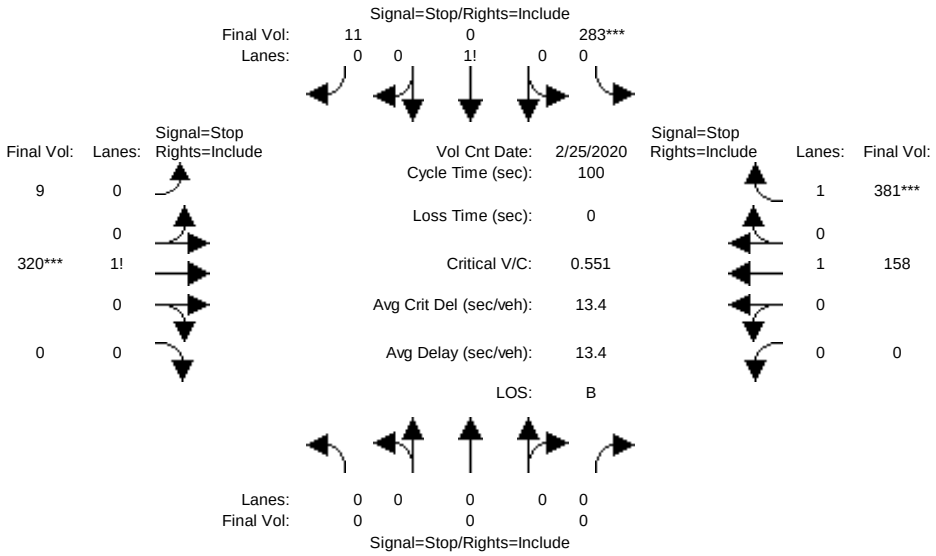


Street Name:	Donohoe Street/E Bayshore Road						Donohoe Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	71	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	0	601	25	462	1059	0	0	0	0	15	0	256
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	601	25	462	1059	0	0	0	0	15	0	256
Added Vol:	0	3	0	1	2	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	604	25	463	1061	0	0	0	0	15	0	257
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	636	26	487	1117	0	0	0	0	16	0	271
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	636	26	487	1117	0	0	0	0	16	0	271
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	636	26	487	1117	0	0	0	0	16	0	271
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.95	0.91	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.92	0.08	1.00	3.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3445	143	1805	5187	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.18	0.27	0.22	0.00	0.00	0.00	0.00	0.01	0.00	0.17
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.10	0.10	0.71	0.81	0.00	0.00	0.00	0.00	0.10	0.00	0.10
Volume/Cap:	0.00	1.85	1.85	0.38	0.27	0.00	0.00	0.00	0.00	0.09	0.00	1.68
Uniform Del:	0.0	45.0	45.0	5.8	2.3	0.0	0.0	0.0	0.0	40.9	0.0	45.0
IncremntDel:	0.0	391	391.2	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	329.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	436	436.2	5.9	2.3	0.0	0.0	0.0	0.0	41.1	0.0	374.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	436	436.2	5.9	2.3	0.0	0.0	0.0	0.0	41.1	0.0	374.3
LOS by Move:	A	F	F	A	A	A	A	A	A	D	A	F
HCM2kAvgQ:	0	791	785	150	78	0	0	0	0	12	0	582

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumulative Plus Project PM

Intersection #19: Woodland Avenue/Manhattan Avenue



Street Name:	Manhattan Avenue						Woodland Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 4:00PM												
Base Vol:	0	0	0	186	0	10	8	288	0	0	142	251
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	186	0	10	8	288	0	0	142	251
Added Vol:	0	0	0	69	0	0	0	0	0	0	0	92
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	255	0	10	8	288	0	0	142	343
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	283	0	11	9	320	0	0	158	381
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	283	0	11	9	320	0	0	158	381
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	283	0	11	9	320	0	0	158	381
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.96	0.00	0.04	0.03	0.97	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	558	0	22	17	617	0	0	609	691
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	0.51	xxxx	0.51	0.52	0.52	xxxx	xxxx	0.26	0.55
Crit Moves:				****				****				****
Delay/Veh:	0.0	0.0	0.0	14.3	0.0	14.3	14.0	14.0	0.0	0.0	10.4	13.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	14.3	0.0	14.3	14.0	14.0	0.0	0.0	10.4	13.6
LOS by Move:	*	*	*	B	*	B	B	B	*	*	B	B
ApproachDel:	xxxxxx			14.3			14.0			12.6		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			14.3			14.0			12.6		
LOS by Appr:	*			B			B			B		
AllWayAvgQ:	0.0	0.0	0.0	21.7	21.7	21.7	24.1	24.1	24.1	0.0	8.3	27.7

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Woodland Avenue/Manhattan Avenue

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****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	0	0	0	1!	0	0	1	0	0	1
Initial Vol:	0	0	0	255	0	10	8	288	0	0	142	343

Major Street Volume: 781
Minor Approach Volume: 265
Minor Approach Volume Threshold: 370

SIGNAL WARRANT DISCLAIMER

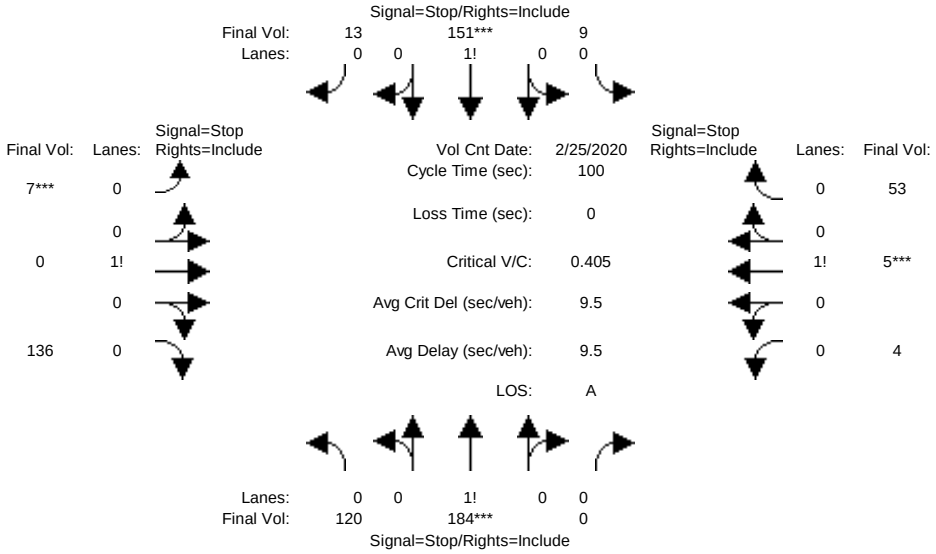
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumulative Plus Project PM

Intersection #20: O'Conner Street/Manhattan Avenue




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Street Name:         Manhattan Avenue                 O'Conner Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM
Base Vol:      94  100     0     8   87    10     4    0   114     4    5    50
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   94  100     0     8   87    10     4    0   114     4    5    50
Added Vol:     19   73     0     0   55     2     3    0    14     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  113  173     0     8  142    12     7    0   128     4    5    50
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.94 0.94  0.94  0.94 0.94  0.94  0.94 0.94  0.94  0.94 0.94  0.94
PHF Volume:   120  184     0     9  151    13     7    0   136     4    5    53
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  120  184     0     9  151    13     7    0   136     4    5    53
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  120  184     0     9  151    13     7    0   136     4    5    53
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.40 0.60  0.00  0.05 0.88  0.07  0.05 0.00  0.95  0.07 0.08  0.85
Final Sat.:   296  454     0    36  643    54    38    0   696    47   59   589
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.41 0.41  xxxx  0.23 0.23  0.23  0.20 xxxx  0.20  0.09 0.09  0.09
Crit Moves:       ****             ****        ****                    ****
Delay/Veh:   10.6 10.6   0.0   9.0  9.0   9.0   8.5  0.0   8.5   8.1  8.1   8.1
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  10.6 10.6   0.0   9.0  9.0   9.0   8.5  0.0   8.5   8.1  8.1   8.1
LOS by Move:    B    B     *     A    A     A     A    *     A     A    A     A
ApproachDel:      10.6             9.0             8.5             8.1
Delay Adj:        1.00             1.00            1.00            1.00
ApprAdjDel:       10.6             9.0             8.5             8.1
LOS by Appr:         B               A               A               A
AllWayAvgQ:  15.5 15.5  15.5   6.9  6.9   6.9   5.0  5.0   5.0   2.0  2.0   2.0
Note: Queue reported is the distance per lane in feet.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #20 O'Conner Street/Manhattan Avenue
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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 1	0	0 0	0	0 1!	0 0	0	0 1!	0 0	0	0 1!	0 0
Initial Vol:	113	173	0	8	142	12	7	0	128	4	5	50

Major Street Volume: 448
Minor Approach Volume: 135
Minor Approach Volume Threshold: 434

SIGNAL WARRANT DISCLAIMER

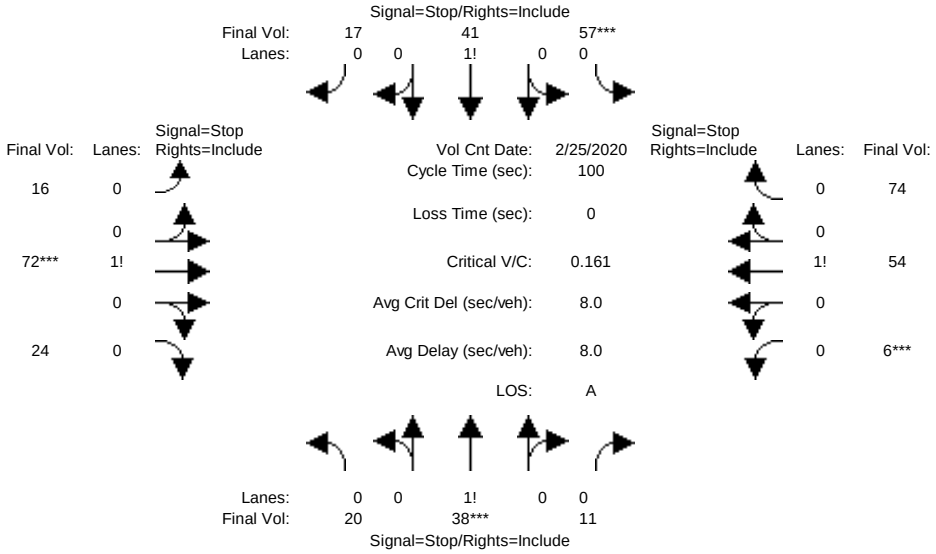
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumulative Plus Project PM

Intersection #21: O'Conner Street/Euclid Avenue



Street Name:	Euclid Avenue						O'Conner Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 25 Feb 2020 << 4:45PM												
Base Vol:	19	36	10	40	39	15	14	65	23	6	49	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	36	10	40	39	15	14	65	23	6	49	51
Added Vol:	0	0	0	14	0	1	1	3	0	0	2	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	36	10	54	39	16	15	68	23	6	51	70
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	20	38	11	57	41	17	16	72	24	6	54	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	38	11	57	41	17	16	72	24	6	54	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	38	11	57	41	17	16	72	24	6	54	74
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.29	0.56	0.15	0.49	0.36	0.15	0.14	0.64	0.22	0.05	0.40	0.55
Final Sat.:	221	418	116	377	272	112	112	509	172	40	337	462
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.15	0.15	0.15	0.14	0.14	0.14	0.16	0.16	0.16
Crit Moves:		****		****				****		****		
Delay/Veh:	7.9	7.9	7.9	8.3	8.3	8.3	8.0	8.0	8.0	7.9	7.9	7.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.9	7.9	7.9	8.3	8.3	8.3	8.0	8.0	8.0	7.9	7.9	7.9
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.9			8.3			8.0			7.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.9			8.3			8.0			7.9		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	2.3	2.3	2.3	4.0	4.0	4.0	3.8	3.8	3.8	4.4	4.4	4.4

Note: Queue reported is the distance per lane in feet.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #21 O'Conner Street/Euclid Avenue

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Initial Vol:	19	36	10	54	39	16	15	68	23	6	51	70

Major Street Volume: 233
Minor Approach Volume: 109
Minor Approach Volume Threshold: 608

SIGNAL WARRANT DISCLAIMER

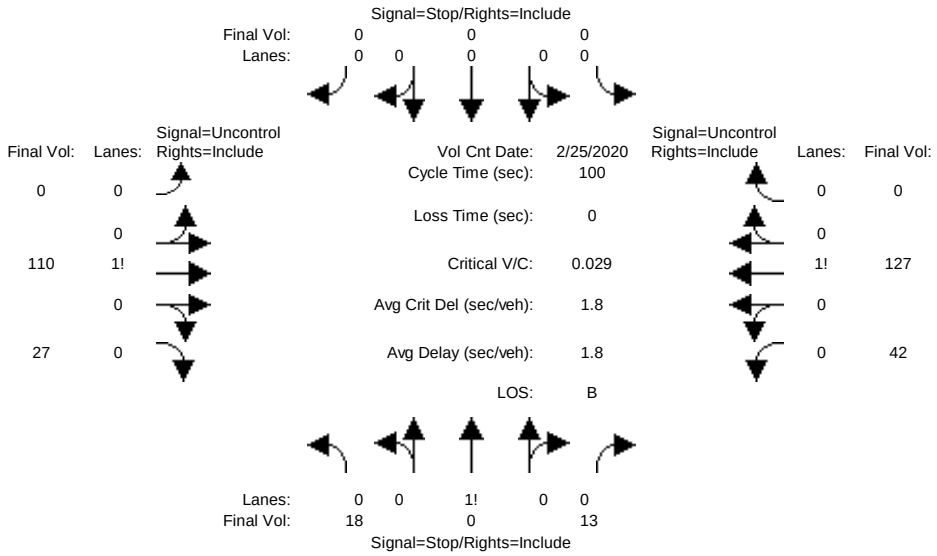
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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative Plus Project PM

Intersection #22: W Bayshore Road/Euclid Avenue



Street Name:	Euclid Avenue						W Bayshore Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 25 Feb 2020 << 4:30PM												
Base Vol:	13	0	12	0	0	0	0	86	20	40	107	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	0	12	0	0	0	0	86	20	40	107	0
Added Vol:	4	0	0	0	0	0	0	20	6	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	0	12	0	0	0	0	106	26	40	122	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	18	0	13	0	0	0	0	110	27	42	127	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	18	0	13	0	0	0	0	110	27	42	127	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	336	334	124	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	138	xxxx	xxxxx
Potent Cap.:	663	589	932	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1459	xxxx	xxxxx
Move Cap.:	647	572	932	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1459	xxxx	xxxxx
Volume/Cap:	0.03	0.00	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	741	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		10.1		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B		*			*			*		

Note: Queue reported is the distance per lane in feet.

Peak Hour Delay Signal Warrant Report

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Intersection #22 W Bayshore Road/Euclid Avenue

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Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	17	0	12	0	0	0	0	106	26	40	122	0
ApproachDel:	10.1			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=29]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=323]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #22 W Bayshore Road/Euclid Avenue

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Initial Vol:	17	0	12	0	0	0	0	106	26	40	122	0

Major Street Volume: 294
Minor Approach Volume: 29
Minor Approach Volume Threshold: 546

SIGNAL WARRANT DISCLAIMER
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8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.2	0.9	0.2	0.7
Total Delay (hr)	0.6	1.5	0.6	5.2	11.9	2.0	16.7	7.3	4.0	3.0	35.6	4.7
Total Del/Veh (s)	79.8	39.7	10.1	45.2	77.3	13.9	215.7	49.1	23.0	128.4	140.6	82.8
Avg Speed (mph)	3	5	11	4	3	9	1	4	7	8	8	10
Vehicles Entered	28	136	200	406	640	510	266	530	625	81	881	200

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	93.2
Total Del/Veh (s)	72.9
Avg Speed (mph)	6
Vehicles Entered	4503

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	9.0	25.9	0.1	0.0	0.0	0.0	35.1
Denied Del/Veh (s)	90.7	92.2	0.5	0.0	0.0	0.0	28.6
Total Delay (hr)	60.1	226.7	18.7	0.5	9.0	2.4	317.5
Total Del/Veh (s)	648.1	840.6	66.5	8.6	41.8	7.9	259.3
Avg Speed (mph)	4	3	4	12	9	19	4
Vehicles Entered	310	875	995	211	757	1090	4238

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.3	3.6	90.4	0.7	0.0	0.0	0.0
Denied Del/Veh (s)	1.5	3.4	1.2	1.2	1.0	3.7	328.2	361.9	411.2	0.0	0.0	0.0
Total Delay (hr)	14.6	1.7	1.4	0.2	0.9	4.2	6.1	146.5	0.8	3.6	4.4	0.7
Total Del/Veh (s)	131.3	114.9	108.4	74.0	66.8	45.2	713.7	882.3	706.0	63.9	21.5	6.3
Avg Speed (mph)	1	1	1	5	5	7	3	3	3	4	9	14
Vehicles Entered	383	51	46	10	50	328	28	612	4	197	726	404

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	95.3
Denied Del/Veh (s)	109.2
Total Delay (hr)	185.1
Total Del/Veh (s)	226.1
Avg Speed (mph)	3
Vehicles Entered	2839

15: NB US 101 On-ramp/Private Dwy & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	4.2	0.3	0.2	0.0	0.0	0.0	0.3	0.5	0.3	0.1
Total Delay (hr)	0.1	1.7	0.3	6.8	0.9	0.0	0.7	0.6	0.4	11.5
Total Del/Veh (s)	67.4	19.5	9.5	81.9	5.1	4.8	52.5	52.2	32.6	24.7
Avg Speed (mph)	3	9	13	4	16	15	3	3	4	7
Vehicles Entered	2	313	105	467	622	19	50	42	44	1664

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	60.4	0.9	110.3	3.1	89.0	0.0	0.1	263.9
Denied Del/Veh (s)	0.0	196.9	186.6	404.7	416.3	400.3	1.2	5.7	246.5
Total Delay (hr)	4.5	159.4	2.5	40.6	0.8	28.3	0.1	1.8	238.0
Total Del/Veh (s)	29.2	587.8	557.6	187.2	137.7	160.6	54.7	89.4	255.5
Avg Speed (mph)	7	2	2	3	4	4	3	2	3
Vehicles Entered	841	908	15	734	19	598	8	72	3195

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.2	7.9	0.0	0.0	135.8	9.0	152.9
Denied Del/Veh (s)	50.2	53.8	0.0	0.0	1576.7	1542.5	404.5
Total Delay (hr)	1.0	37.5	1.1	0.1	43.8	2.6	86.1
Total Del/Veh (s)	245.7	260.8	9.8	3.5	2426.1	2299.4	284.1
Avg Speed (mph)	3	3	8	11	0	0	2
Vehicles Entered	14	505	396	88	28	2	1033

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.3	0.1	0.0	0.4
Denied Del/Veh (s)	0.4	0.8	1.0	0.0	0.4
Total Delay (hr)	1.2	42.9	6.5	1.1	51.8
Total Del/Veh (s)	11.3	105.9	105.0	2.8	52.6
Avg Speed (mph)	10	5	5	18	6
Vehicles Entered	387	1412	216	1471	3486

Total Network Performance

Denied Delay (hr)	547.8
Denied Del/Veh (s)	223.9
Total Delay (hr)	994.0
Total Del/Veh (s)	438.1
Avg Speed (mph)	6
Vehicles Entered	7336

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	113	190	126	225	314	314	311	225	250	353	343	175
Average Queue (ft)	25	72	44	206	287	278	205	216	243	314	285	170
95th Queue (ft)	72	150	93	291	307	314	357	255	276	361	362	201
Link Distance (ft)		313	313		266	266	266			282	282	
Upstream Blk Time (%)					44	34	15			56	16	
Queuing Penalty (veh)					316	241	110			632	188	
Storage Bay Dist (ft)	200			175				200	200			125
Storage Blk Time (%)		0		19	62			34	71	13	30	29
Queuing Penalty (veh)		0		137	173			141	298	59	292	122

Intersection: 8: University Avenue & Donohoe Street

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	300	1251	1247	300
Average Queue (ft)	157	690	698	232
95th Queue (ft)	359	1379	1381	409
Link Distance (ft)		2340	2340	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250			250
Storage Blk Time (%)	0	56	55	0
Queuing Penalty (veh)	0	46	110	0

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	5372	5366	250	388	392	342	95	250	274	602	542
Average Queue (ft)	3881	3982	249	358	361	69	38	197	214	197	163
95th Queue (ft)	6157	6037	255	400	395	219	80	285	301	483	382
Link Distance (ft)	5324	5324		355	355	355				939	939
Upstream Blk Time (%)	32	32		19	23	1					
Queuing Penalty (veh)	0	0		120	145	7					
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		78	82					3	10	0	
Queuing Penalty (veh)		404	570					20	57	2	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	216	222	219	497	75	224	4546	290	299	290	260	220
Average Queue (ft)	184	182	179	237	73	64	3730	287	156	154	148	89
95th Queue (ft)	205	207	205	435	83	212	5714	300	246	242	229	168
Link Distance (ft)	165	165	165	645			4497		355	355	355	355
Upstream Blk Time (%)	78	73	71	0			59		0	0		
Queuing Penalty (veh)	220	204	199	0			0		1	0		
Storage Bay Dist (ft)					25	175		240				
Storage Blk Time (%)				42	67	0	82	80				
Queuing Penalty (veh)				141	41	0	410	395				

Intersection: 15: NB US 101 On-ramp/Private Dwy & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	R	L	T	TR	LTR
Maximum Queue (ft)	43	247	96	361	353	340	220
Average Queue (ft)	3	126	38	311	156	124	98
95th Queue (ft)	19	218	79	397	374	309	181
Link Distance (ft)		429	429	313	313	313	238
Upstream Blk Time (%)				25	3	1	0
Queuing Penalty (veh)				129	13	5	0
Storage Bay Dist (ft)	60						
Storage Blk Time (%)		26					
Queuing Penalty (veh)		1					

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	T	T	T	T	TR	L	L	T	R	L	R
Maximum Queue (ft)	232	245	2644	2645	295	525	1085	1095	250	44	178
Average Queue (ft)	141	159	2063	2062	283	471	1050	1058	234	8	75
95th Queue (ft)	216	237	3441	3426	360	616	1167	1136	332	31	160
Link Distance (ft)	266	266	2722	2722			1046	1046		230	230
Upstream Blk Time (%)	0	0	49	48			40	62			3
Queuing Penalty (veh)	0	0	0	0			0	0			0
Storage Bay Dist (ft)					245	475			200		
Storage Blk Time (%)				73	31	38	46	0	65		
Queuing Penalty (veh)				285	116	180	222	1	18		

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	250	1535	160	182	119	541	542
Average Queue (ft)	227	908	59	91	34	513	522
95th Queue (ft)	299	1874	128	156	101	556	566
Link Distance (ft)		1588	165	165		521	521
Upstream Blk Time (%)		28	0	1		81	97
Queuing Penalty (veh)		0	0	2		0	0
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	43	65		11	0		
Queuing Penalty (veh)	113	182		6	0		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	253	986	974	126	134
Average Queue (ft)	113	905	916	5	16
95th Queue (ft)	217	1109	1108	44	61
Link Distance (ft)	314	939	939	282	282
Upstream Blk Time (%)	0	12	17		
Queuing Penalty (veh)	0	158	216		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 7449

8: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.7	0.2	0.7
Total Delay (hr)	0.1	1.3	1.0	4.7	7.6	2.8	10.7	6.3	4.4	2.0	15.4	1.0
Total Del/Veh (s)	31.2	48.1	24.5	31.8	31.3	14.4	103.8	32.8	19.8	86.3	61.5	17.5
Avg Speed (mph)	6	4	7	6	6	9	2	5	7	10	12	19
Vehicles Entered	6	92	137	528	870	692	355	672	788	80	859	201

8: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	57.1
Total Del/Veh (s)	38.2
Avg Speed (mph)	9
Vehicles Entered	5280

9: University Avenue & SB US-101 Ramps Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.4	1.3	0.1	0.0	0.0	0.0	1.8
Denied Del/Veh (s)	4.4	4.6	0.2	0.0	0.0	0.0	1.4
Total Delay (hr)	44.2	171.2	14.7	0.5	10.7	2.6	243.9
Total Del/Veh (s)	419.7	554.3	41.4	6.8	49.0	8.3	177.4
Avg Speed (mph)	6	5	5	13	9	19	6
Vehicles Entered	356	1025	1257	267	772	1115	4792

10: University Avenue & Woodland Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.4	2.6	62.5	0.6	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	1.4	0.1	3.5	1.7	4.4	237.8	247.7	275.8	0.0	0.0	0.0
Total Delay (hr)	14.1	0.9	0.8	0.3	0.9	4.2	5.7	138.8	1.1	3.4	3.6	0.9
Total Del/Veh (s)	88.3	43.5	39.3	82.6	65.0	46.4	584.8	613.0	655.5	57.1	16.6	7.5
Avg Speed (mph)	2	3	3	4	5	7	4	4	3	4	10	13
Vehicles Entered	555	70	68	13	51	327	32	738	6	209	771	431

10: University Avenue & Woodland Avenue Performance by movement

Movement	All
Denied Delay (hr)	66.3
Denied Del/Veh (s)	69.1
Total Delay (hr)	174.5
Total Del/Veh (s)	185.6
Avg Speed (mph)	4
Vehicles Entered	3271

15: NB US 101 On-ramp/Private Dwy & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.3	24.2	9.0	0.0	0.0	0.0	0.0	0.0	0.0	33.5
Denied Del/Veh (s)	322.9	288.5	303.4	0.0	0.0	0.0	0.2	0.2	0.2	61.0
Total Delay (hr)	1.6	13.6	0.4	6.5	0.5	0.0	0.6	0.7	0.3	24.2
Total Del/Veh (s)	2807.9	100.8	19.1	38.1	2.4	2.1	49.6	53.9	29.6	47.0
Avg Speed (mph)	0	1	9	6	19	17	3	2	4	5
Vehicles Entered	1	195	69	602	809	24	46	43	40	1829

16: NB US-101 Off-ramp/Private Driveway & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.5	0.0	0.6	0.0	0.0	1.1
Denied Del/Veh (s)	0.0	0.1	0.1	1.8	1.5	2.7	0.1	0.1	1.0
Total Delay (hr)	9.1	59.3	0.4	4.9	0.2	5.8	0.1	1.3	81.0
Total Del/Veh (s)	33.8	184.1	64.9	18.1	18.8	25.4	58.7	68.4	72.1
Avg Speed (mph)	5	7	13	16	16	13	2	2	8
Vehicles Entered	963	1114	19	955	29	807	9	68	3964

18: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	49.0	4.2	53.4
Denied Del/Veh (s)	4.6	1.5	0.0	0.0	568.9	626.0	137.4
Total Delay (hr)	0.2	8.7	2.3	0.2	37.8	2.6	51.8
Total Del/Veh (s)	52.4	57.8	19.1	6.3	670.4	591.5	144.0
Avg Speed (mph)	11	10	5	9	0	0	3
Vehicles Entered	17	530	422	92	187	14	1262

23: University Avenue Performance by movement

Movement	EBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.1	0.1	0.0	0.1
Total Delay (hr)	1.1	21.1	3.6	1.0	26.8
Total Del/Veh (s)	10.7	41.5	47.9	2.4	24.1
Avg Speed (mph)	10	10	9	19	11
Vehicles Entered	363	1806	263	1537	3969

Total Network Performance

Denied Delay (hr)	156.4
Denied Del/Veh (s)	64.0
Total Delay (hr)	671.7
Total Del/Veh (s)	267.9
Avg Speed (mph)	9
Vehicles Entered	8308

Intersection: 8: University Avenue & Donohoe Street

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB
Directions Served	L	T	T	T	TR	L	LT	T	T	TR	R	L
Maximum Queue (ft)	31	111	125	74	195	225	305	295	243	228	197	225
Average Queue (ft)	4	28	38	12	71	187	228	160	111	111	98	182
95th Queue (ft)	22	81	98	49	167	267	323	274	204	188	162	262
Link Distance (ft)		314	314	314	314		261	261	261	261	261	
Upstream Blk Time (%)							5	1	0	0		
Queuing Penalty (veh)							23	4	0	0		
Storage Bay Dist (ft)	200					175						200
Storage Blk Time (%)		0				5	22					15
Queuing Penalty (veh)		0				26	60					62

Intersection: 8: University Avenue & Donohoe Street

Movement	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	T	R	L	T	T	R
Maximum Queue (ft)	250	318	313	175	300	624	636	300
Average Queue (ft)	220	263	270	173	128	349	355	175
95th Queue (ft)	291	338	322	196	305	590	595	377
Link Distance (ft)		258	258			2316	2316	
Upstream Blk Time (%)	7	20	15					
Queuing Penalty (veh)	0	228	175					
Storage Bay Dist (ft)	200			125	250			250
Storage Blk Time (%)	28	13	23	36	0	27	25	0
Queuing Penalty (veh)	116	61	224	151	0	22	51	0

Intersection: 9: University Avenue & SB US-101 Ramps

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	4886	4877	250	373	380	290	100	250	275	667	596
Average Queue (ft)	3144	3264	249	340	344	58	38	230	248	268	173
95th Queue (ft)	5202	5133	254	391	392	171	83	281	306	571	408
Link Distance (ft)	5324	5324		336	336	336				939	939
Upstream Blk Time (%)	5	5		14	17	1				0	0
Queuing Penalty (veh)	0	0		92	110	5				0	0
Storage Bay Dist (ft)			200				175	225	225		
Storage Blk Time (%)		62	66					5	21	0	
Queuing Penalty (veh)		319	460					32	125	4	

Intersection: 10: University Avenue & Woodland Avenue

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	L	TR	L	T	R	L	T	TR	L	T
Maximum Queue (ft)	207	201	175	180	83	464	100	224	4534	290	290	293
Average Queue (ft)	175	174	112	90	12	225	96	67	3825	288	152	148
95th Queue (ft)	193	193	177	174	45	430	112	216	5685	297	242	241
Link Distance (ft)	161	161	161	161		645			4490		336	336
Upstream Blk Time (%)	67	68	4	6		1			61		0	0
Queuing Penalty (veh)	142	143	9	13		0			0		0	0
Storage Bay Dist (ft)					50		50	175		240		
Storage Blk Time (%)					0	15	61	0	76	74		
Queuing Penalty (veh)					1	52	37	0	380	365		

Intersection: 10: University Avenue & Woodland Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	256	224
Average Queue (ft)	149	92
95th Queue (ft)	233	177
Link Distance (ft)	336	336
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: NB US 101 On-ramp/Private Dwy & Donohoe Street

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	SB
Directions Served	LT	T	T	TR	L	T	T	T	TR	LTR
Maximum Queue (ft)	414	387	130	228	355	290	260	150	104	202
Average Queue (ft)	322	182	9	85	297	84	44	15	21	91
95th Queue (ft)	536	448	89	211	382	236	167	70	62	167
Link Distance (ft)	424	424	424	424	314	314	314	314	314	214
Upstream Blk Time (%)	41	4	0		14	0	0	0		0
Queuing Penalty (veh)	0	0	0		42	1	0	0		0
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	T	T	T	T	T	T	T	TR	L	L	T	R
Maximum Queue (ft)	117	244	270	297	1090	1080	1046	295	305	395	662	250
Average Queue (ft)	23	151	231	241	734	709	654	243	172	195	231	223
95th Queue (ft)	83	219	292	307	1196	1187	1149	337	273	329	583	294
Link Distance (ft)	261	261	261	261	2724	2724	2724			1022	1022	
Upstream Blk Time (%)		0	1	3						0	0	
Queuing Penalty (veh)		0	3	9						0	0	
Storage Bay Dist (ft)								245	475			200
Storage Blk Time (%)							15	15			0	20
Queuing Penalty (veh)							45	41			0	6

Intersection: 16: NB US-101 Off-ramp/Private Driveway & Donohoe Street

Movement	SB	SB
Directions Served	L	R
Maximum Queue (ft)	38	143
Average Queue (ft)	7	63
95th Queue (ft)	28	123
Link Distance (ft)	204	204
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	250	553	161	208	125	560	557
Average Queue (ft)	179	242	99	127	56	487	483
95th Queue (ft)	272	550	178	208	141	659	666
Link Distance (ft)		1588	161	161		520	520
Upstream Blk Time (%)		1	0	5		70	76
Queuing Penalty (veh)		0	1	14		0	0
Storage Bay Dist (ft)	200				75		
Storage Blk Time (%)	8	16		25	0		
Queuing Penalty (veh)	22	44		13	0		

Intersection: 23: University Avenue

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	235	934	932	79	86
Average Queue (ft)	103	566	598	5	14
95th Queue (ft)	191	1011	1020	47	58
Link Distance (ft)	314	939	939	258	258
Upstream Blk Time (%)	0	1	1		
Queuing Penalty (veh)	0	13	17		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 3765



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