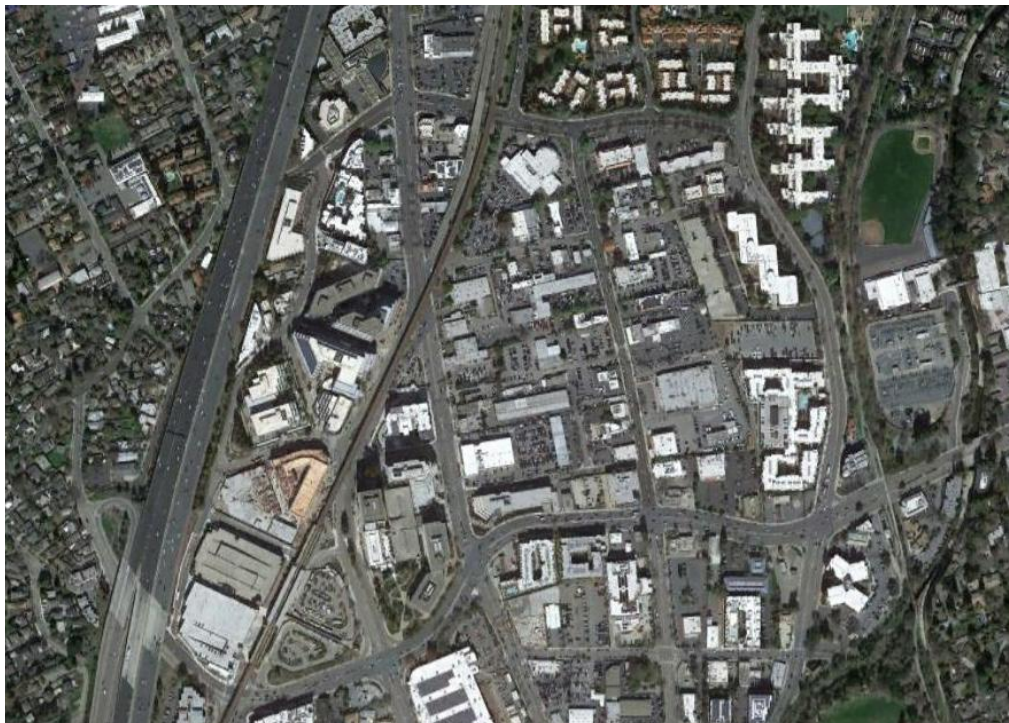


Appendix J: **Transportation Supporting Information**

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CEQA Only Transportation Analysis Walnut Creek North Downtown Specific Plan SEIR



Prepared for the City of Walnut Creek

Submitted by
W-Trans

November 29, 2022



**TRAFFIC ENGINEERING
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Table of Contents

Executive Summary - CEQA	1
Introduction.....	4
Transportation Setting.....	7
Project Data	13
Circulation System	25
Vehicle Miles Traveled	32
Traffic Safety	34
Emergency Access.....	45
Conclusions and Recommendations – CEQA.....	47
Study Participants and References.....	49

Figures

1. Study Area	6
2. Existing Lane Configurations	10
3. Scenario 1-CCC Conceptual Site Plan	14
4. Scenario 2-HRC Conceptual Site Plan.....	15
5. Scenario 3-RRC Conceptual Site Plan	16
6. Trip Distributions.....	21
7. Scenario 1-CCC Project Traffic Volumes	22
8. Scenario 2-HRC Project Traffic Volumes	23
9. Scenario 3-RRC Project Traffic Volumes.....	24

Tables

1. Trip Generation Summary	2
2. Bicycle Parking Requirements Summary.....	3
3. CEQA Checklist for Section XVII. TRANSPORTATION/TRAFFIC	4
4. Development Scenario Summaries.....	5
5. Collision Rates for the Study Intersections	11
6. Scenario 1-CCC Trip Generation Summary.....	17
7. Scenario 2-HRC Trip Generation Summary.....	18
8. Scenario 3-RRC Trip Generation Summary	19
9. Trip Generation Summaries.....	19
10. Trip Distribution Assumptions.....	20
11. Bicycle Facility Summary	28
12. Bicycle Parking Requirements.....	29
13. Transit Routes	30
14. Near-Term Maximum Left-Turn Queues Exceeding Available Storage	36

15. Cumulative Maximum Left-Turn Queues Exceeding Available Storage.....	38
16. Signal Warrant Summary	42
17. Proportional Share Summary	43

Appendices

- A. Collision Rate Calculations
- B. Turn Lane Warrant Worksheets
- C. Queuing Calculations
- D. Signal Warrant Worksheets
- E. Proportional Share Calculations

Executive Summary - CEQA

The transportation analysis conducted for this project was split into California Environmental Quality Act (CEQA) and non-CEQA topics. This report covers CEQA topics; non-CEQA items were provided in a separate report to City of Walnut Creek staff.

Project Description

The Applicant, Toyota Walnut Creek, has requested that the City amend a portion of the North Downtown Specific Plan (NDSP) by, among other things, introducing a new “Mixed Use Special District” to cover approximately 6.2 acres of land located in the City of Walnut Creek that the Applicant controls or owns. Auto sales, service, and ancillary uses are already permitted as of right within these 6.2 acres. However, to facilitate the retention and enhancement of automotive sales, service and ancillary uses in an economically viable manner, the Applicant is proposing to amend the NDSP such that other potential mixed uses, including multi-family residential, hotel, and/or other compatible non-residential uses, could be developed within the 6.2-acre Mixed Use Special District—along with auto sales, service, and ancillary uses—as part of a mixed-use redevelopment.

These amendments would facilitate redevelopment of the approximately 6.2-acre site within the NDSP area (referred to herein, collectively, as Sites A, B, and C) as well as an existing approximately 1.42-acre site where Toyota Walnut Creek presently operates a dealership (referred to herein as Site D), and an approximately 0.82-acre property (referred to herein as Site E), located adjacent to Site A. It is assumed for purposes of this analysis that the current Toyota Walnut Creek dealership site (Site D) would be developed with uses consistent with the approved NDSP. When referred to throughout this analysis, project site refers to all sites that could potentially undergo redevelopment as part of the proposed project (i.e., Sites A, B, C, D, and E) unless otherwise expressly indicated.

2019 NDSP EIR; Supplemental EIR; Development Scenarios Studied

These proposed amendments to the NDSP would result in (1) a net increase in auto sales, service and ancillary uses, as well as (2) the introduction of new potential multi-family residential, hotel, and/or other compatible non-residential uses that were either not contemplated within these 6.2 acres in the NDSP or that would be permitted at a higher floor area ratio (FAR) than are currently allowed by the NDSP. Accordingly, a Supplemental Environmental Impact Report (Supplemental EIR) is being prepared to evaluate the potential environmental impacts that could result therefrom as compared to those identified and analyzed in the previously certified North Downtown Specific Plan EIR (2019 NDSP EIR), LSA, 2018.

No specific individual development proposal has been formally submitted by the Applicant at this time. The particular development parameters, including the allocation of the proposed mix of uses across the 6.2-acre Mixed Use Special District (as well as potentially Sites D and E), and the ultimate size and scope of this future redevelopment are not currently known. For these reasons and to ensure sufficient flexibility to adapt to these changing considerations, at this time the Applicant is only seeking City approval of the proposed amendments to the NDSP (and related conforming amendments to the City’s General Plan and Municipal Code to ensure consistency), as well as approval of a development agreement. Assuming the City adopts these requested amendments and certifies the Supplemental EIR, the Applicant would then prepare and submit for consideration a specific individual development proposal in accordance with the relevant criteria and policies of the NDSP (as amended), which would set forth the specific development parameters, the ultimate amount, allocation and mix of uses, and other site planning details. At such time as a specific individual development proposal is formally submitted to the City for consideration, it would be required to adhere to all applicable development standards, policies and regulations under applicable law including those set forth in the NDSP (as amended), as well as all applicable design guidelines and other requirements.

Under CEQA, the Supplemental EIR must document the information necessary to make the 2019 NDSP EIR adequate to address the potential environmental impacts associated with the requested amendments to the

NDSP (and related conforming amendments to the General Plan and the Municipal Code) and provide additional environmental analysis where appropriate. Because the ultimate land uses and site plans are not currently known and there are various ways in which the subject lands could ultimately be developed under the NDSP (as amended), in order to conduct the required environmental review, the Supplemental EIR will evaluate the maximum reasonable development potential that could occur in light of reasonably available information, taking into consideration the size, potential mix of uses, and nature of the subject lands and other relevant factors. To that end, for the purpose of this analysis, three potential development scenarios (as described further below) are evaluated, each of which involves a different mix and allocation of potential uses that could reasonably be assumed along with the net increase in auto sales and service uses (which would remain a constant between the scenarios).

This transportation analysis has been prepared as part of the preparation of the Supplemental EIR, consistent with the Project Description set forth therein. As discussed more fully below, Scenario 1-CCC consists of all commercial office uses (assumed to occur on Sites A through C); Scenario 2-HRC consists of a hotel use, residential use, and commercial office use (assumed to occur on Sites A through C, respectively); and Scenario 3-RRC consists of residential uses (assumed to occur on Sites A and B) and commercial office uses (assumed to occur on Site C). As noted above, all three development scenarios would include an expansion of the existing automotive sales, service, and ancillary uses.

Summary of Impacts

The trip generations for each development scenario are summarized in Table 1, including total trip generations and trip generations with deductions taken for non-auto modes (walking, biking, transit) and for the existing land uses that would be demolished.

Table 1 – Trip Generation Summaries						
Scenario	No Deductions			With Deductions		
	Daily Trips	Peak Hour Trips		Daily Trips	Peak Hour Trips	
		AM	PM		AM	PM
1-CCC	7,802	759	820	5,952	635	658
2-HRC	7,198	588	613	5,348	464	451
3-RRC	6,874	477	590	5,024	353	428

Pedestrian, Bicycle and Transit Impacts Would Be Less Than Significant for All Three Development Scenarios

The proposed project would incorporate a public trail on a portion of Site A as a project design feature in a manner consistent with NDSP policies, to facilitate use of alternative modes of travel. This would result in a less-than-significant impact in this regard.

Bicycle parking, in accordance with applicable requirements, would need to be provided as shown for each scenario in Table 2, including commercial spaces, residential short-term spaces, residential long-term spaces, and showers and clothing lockers for the commercial uses. The commercial bicycle parking would need to include at least one short-term and one long-term space. No other potential pedestrian, bicycle, or transit impacts were identified.

Table 2 – Bicycle Parking Requirements Summary

Type of Bicycle Parking Scenario	Commercial			Residential Short-Term			Residential Long-Term		
	1-CCC	2-HRC	3-RRC	1-CCC	2-HRC	3-RRC	1-CCC	2-HRC	3-RRC
Bicycle Spaces Required	171	111	46	-	7	33	-	66	329
Showers	7	4	2	-	-	-	-	-	-
Clothing Lockers	28	16	8	-	-	-	-	-	-

VTM Impacts Would Be Less Than Significant For All Three Development Scenarios

Scenario 1-CCC and Scenario 3-RRC would have a *less-than-significant impact* on VMT, as the relevant Sites are located in TAZs with residential and commercial VMTs that are 85 percent or less of the area average. For Scenario 2-HRC, a *less-than-significant impact* on vehicle miles traveled (VMT) would be achieved given that the following criteria would be satisfied based on the development parameters incorporated into Scenario 2-HRC: (1) the floor-area ratio of the project is at least 0.75, (2) the parking does not exceed applicable City requirements, and (3) the project complies with relevant *Plan Bay Area 2050* strategies.

Impacts Related to Access, Safety, and Queuing

Under all three scenarios, Project access would be provided by a driveway on North Broadway for each of the relevant Sites, as well as a driveway on North Main Street for Site A. There is adequate sight distance available for all four proposed driveways, though a right-turn lane from North Main Street into Site A would be warranted and is recommended for all three development scenarios *to avoid a potentially significant impact* to safety on North Main Street.

Scenario 1-CCC would have a *potentially significant impact* on the westbound right-turn lane at Parkside Drive/San Juan Avenue, the northbound left-turn lane at North Main Street/Parkside Drive, and the southbound left-turn lane at North Main Street/Pringle Avenue. Scenario 2-HRC and Scenario 3-RRC would have a *potentially significant impact* to queues in the northeast through/right-turn lane at North Main Street/North California Boulevard-Lawrence Way. These impacts could be reduced to *less-than-significant with mitigation* by extending the affected turn lane.

Installation of a traffic signal control would be warranted at Parkside Drive/Hillside Avenue, Parkside Drive/Buena Vista Avenue, Parkside Drive/San Juan Avenue, Parkside Drive/Riviera Avenue, and North Main Street/Central Road under Near-Term conditions (as defined below) without or with the proposed project. A signal would be warranted at North Broadway/Pine Street under Near-Term conditions plus Scenario 1-CCC volumes as well as under cumulative plus Scenario 1-CCC volumes. This presents a *potentially significant impact* of the proposed project, and a proportional share contribution towards constructing traffic signals at these locations is recommended to reduce the impact to a *less-than-significant level with mitigation*. Under all scenarios assessed, a traffic signal would not be warranted for North Broadway/Central Road.

As the adopted Fire Code requires a maximum reach of 150 feet from a fire access road to all building exteriors, and the relevant Sites are greater than 400 feet wide, a fire access road including a turnaround would be required to grant access to all building exteriors within the maximum reach. This represents a *potentially significant impact* that would be mitigated either through inclusion of a fire access road, or otherwise being granted an exemption from a Fire Code official through installing automatic sprinkler systems.

Introduction

This report presents an analysis of the potential CEQA-related transportation impacts and non-CEQA related operational effects that would be associated with development of the proposed project on the project site in the City of Walnut Creek. This transportation impact study (TIS) was completed in accordance with the applicable criteria established by the City of Walnut Creek and under CEQA and is consistent with standard traffic engineering techniques.

Prelude

The purpose of a transportation impact study is to provide City staff, policy makers, and other interested agencies and individuals with data that can be used to facilitate informed decision regarding the potential transportation impacts of a proposed project, and any associated improvements that would be required to mitigate these impacts to an acceptable level under CEQA, the City's General Plan, or other relevant policies. This report provides an analysis of those items that are identified as areas of environmental concern under the California Environmental Quality Act (CEQA) to support the impact analysis set forth in the Supplemental EIR for the proposed project. Impacts associated with access for pedestrians, bicyclists, and to transit; the vehicle miles traveled (VMT) generated by the proposed project; potential safety concerns such as increased queuing in dedicated turn lanes, adequacy of sight distance, need for turn lanes, and need for additional right-of-way controls; and emergency access are addressed in the context of the CEQA criteria. A summary of the CEQA criteria and results of this analysis for each development scenario is included in Table 3.

Table 3 – CEQA Checklist for Section XVII. TRANSPORTATION/TRAFFIC

Would the Project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			1-CCC 2-HRC 3-RRC	
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			1-CCC 2-HRC 3-RRC	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		1-CCC 2-HRC 3-RRC		
d) Result in inadequate emergency access?		1-CCC 2-HRC 3-RRC		

Note: 1-CCC = Scenario 1-CCC; 2-HRC = Scenario 2-HRC; 3-RRC = Scenario 3-RRC

Project Profile

The Applicant owns or controls approximately 6.2 acres of land in the City of Walnut Creek, in Contra Costa County, California (see Figure 1). The 6.2-acre Mixed Use Special District consists of a total of 10 parcels (individually referred to as 2100 North Main (Site A), 2150 North Broadway (Site B), and 2100 North Broadway (Site C)), and is located entirely within the boundaries of the existing NDSP. This Mixed Use Special District is generally bounded

by North Main Street (west), Pine Street (north), Civic Drive (east), and Ygnacio Valley Road (south). The Mixed Use Special District is located within Township 1N, Range 2W, Section 27 of the Walnut Creek, California United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map (Latitude 37°54' 32" North; Longitude 122°3'43" West). The Applicant also leases land on North Broadway in the City, where it currently operates an auto dealership (including auto sales, service, administration, inventory, and parts uses); these operations are located on approximately 1.4 acres of land (Site D), which is also located within the boundaries of the NDSP area and is near, but outside of the 6.2-acre Mixed Use Special District. Similarly, the Applicant also leases land located at 1435 Pine Street, which abuts Site A and which the Applicant uses for automotive service within a 1-story building and associated surface parking lot (Site E). These lands are also located within the boundaries of the NDSP area but are outside of the 6.2-acre Mixed Use Special District. The potential redevelopment of Sites D and E are also evaluated in the Supplemental EIR, on the basis of the existing land use designation of Automobile Sales/Service and Custom Manufacturing, which would remain applicable to both Sites. However, for purposes of this transportation analysis, because it is assumed that the replacement building(s) that could occur under the proposed project on Sites D and E would not be greater than the square footage of the existing buildings located thereon, Sites D and E were not included in the trip generation.

Site A (2100 North Main Street) currently hosts a variety of buildings and lots serving the Toyota Walnut Creek Dealership, Site B (2150 North Broadway) has a two-story office building and parking area used for overflow storage for the Toyota Walnut Creek dealership, and Site C (2100 North Broadway) is a parking area for the Toyota Walnut Creek dealership.

As explained above, to ensure a conservative analysis, three development scenarios were studied in this transportation analysis as detailed in Table 4. Reasonable assumptions about the allocation of the uses identified in each of the development scenarios have been made in this transportation analysis for purposes of this analysis and to facilitate informed decision making.

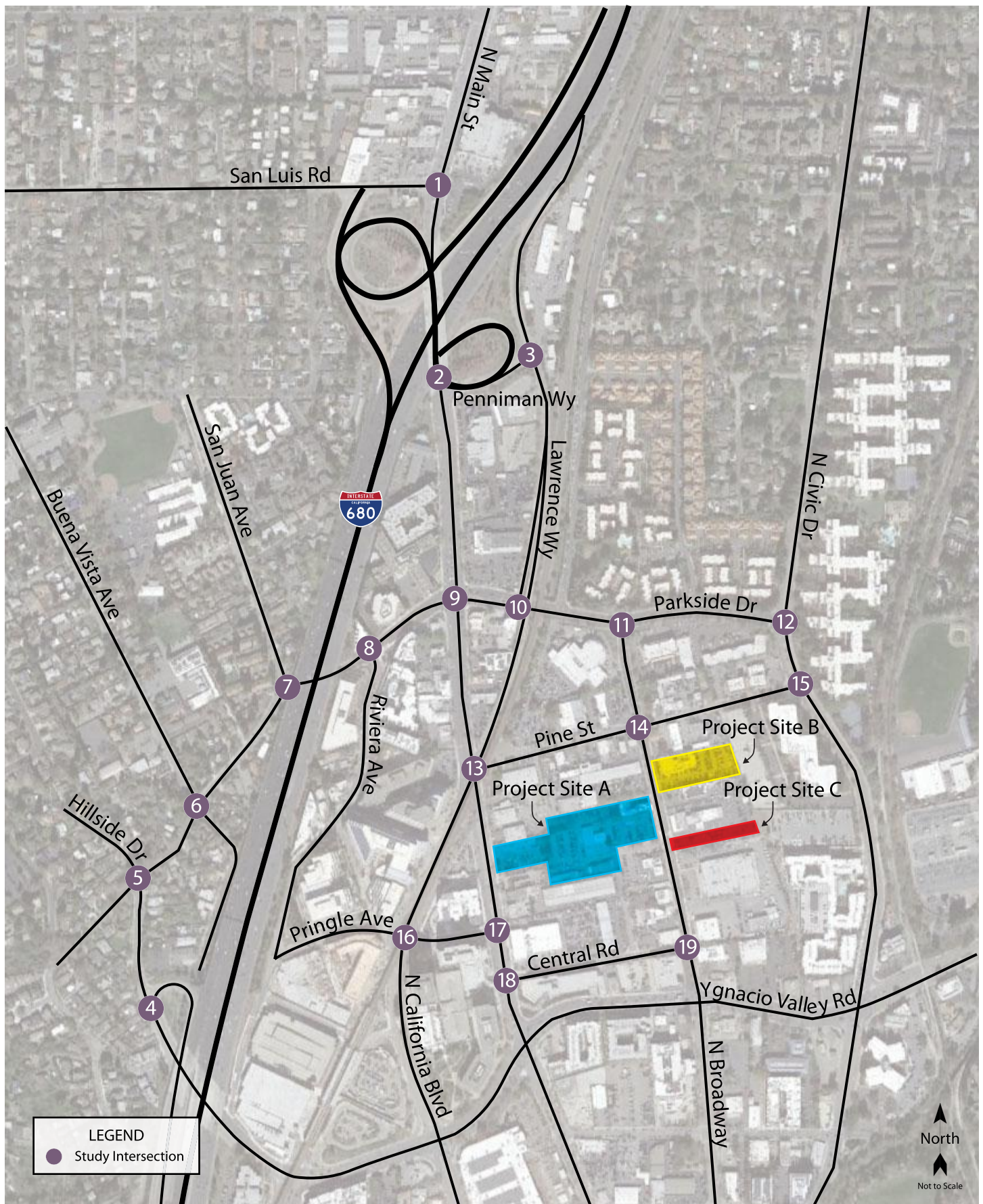
Table 4 – Development Scenario Summaries

Scenario	2100 N. Main St. (Site A)		2150 N. Broadway (Site B)		2100 N. Broadway (Site C)	
	Land Use	Size	Land Use	Size	Land Use	Size
1-CCC	Comm'l Office	375.727 ksf	Comm'l Office	97.221 ksf	Comm'l Office	40.546 ksf
2-HRC	Hotel	723 rooms	Residential	132 du	Comm'l Office	40.546 ksf
3-RRC	Residential	526 du	Residential	132 du	Comm'l Office	40.546 ksf

Note: du = dwelling unit; ksf = 1,000 square feet

In addition to the above land uses, under all three scenarios there is a proposed auto dealership of approximately 142,094 square feet, with it being assumed that these auto sales and service uses would be distributed among Sites A through E and would replace the existing approximately 90,465-square-foot dealership and support buildings. Note that the 24,001 square feet on Sites D and E were assumed to remain constant, leaving 118,093 square feet on Sites A through C to replace the existing 66,464 square feet on these three sites.

The study area as well as Sites A, B, and C are shown in Figure 1.



Transportation Analysis, Walnut Creek North Downtown Specific Plan SEIR
Figure 1 – Study Area

Transportation Setting

Study Area and Periods

For purposes of conducting a transportation impact study, the study area varies depending on the topic. For pedestrian trips, it consists of all streets within a half-mile of the project site that would lie along primary routes of pedestrian travel, or those leading to nearby generators or attractors of pedestrians. For bicycle trips, it consists of all streets within one mile of the project site that would lie along primary routes of bicycle travel. For the safety and operational analyses, the study area (developed in consultation with City of Walnut Creek staff) consists of the project frontages and the following intersections:

1. North Main Street/San Luis Road
2. North Main Street/Penniman Way
3. Penniman Way/Lawrence Way-I-680 North Ramp
4. Hillside Avenue/SR-24 West On-Ramp
5. Parkside Drive/Hillside Avenue
6. Parkside Drive/Buena Vista Avenue
7. Parkside Drive/San Juan Avenue
8. Parkside Drive/Riviera Avenue
9. North Main Street/Parkside Drive
10. Parkside Drive/Lawrence Way
11. North Broadway/Parkside Drive
12. North Civic Drive/Parkside Drive
13. North Main Street/North California Boulevard-Lawrence Way
14. North Broadway/Pine Street
15. North Civic Drive/Pine Street
16. North California Boulevard/Pringle Avenue
17. North Main Street/Pringle Avenue
18. North Main Street/Central Road
19. North Broadway/Central Road

In addition to the study intersections, the operational analysis also includes the segment of Ygnacio Valley Road between I-680 and Oak Grove Road, as well as the I-680 and SR-24 freeways and ramps near the study area.

Operating conditions during the weekday a.m. and p.m. peak periods were evaluated to capture the highest potential impacts for the proposed project as well as the highest volumes on the local transportation network. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute.

Study Intersections

North Main Street/San Luis Road is a signalized intersection with crosswalks on all four legs and curb ramps at all corners. The left turns on North Main Street have protected phasing, and the approaches on San Luis Road have permitted left-turn phasing. There is a bicycle lane on North Main Street in the northbound direction and there are shared lane markings on San Luis Road that are intended to increase awareness to motorists and bicyclists that bicycles are permitted in the vehicle lane and that all roadway users share the road.

North Main Street/Penniman Way is a signalized tee intersection with crosswalks across the south and east legs. The left-turn movement on the northbound approach has protected phasing and provides U-turn access (there is no westbound departure to receive a left turn).

Penniman Way/Lawrence Way-I-680 North On-Ramp is a four-legged signalized intersection with split phasing for all three approaches. There are curb ramps and a crosswalk for the south leg of Lawrence Way. The north leg serves departures only, providing access to I-680 North.

Hillside Avenue/SR-24 West On-Ramp is a three-legged uncontrolled intersection with crosswalks and curb ramps on the north and east legs, and shared lane markings on Hillside Avenue. The east leg has access to SR-24 West.

Parkside Drive/Hillside Avenue is a four-way stop-controlled intersection. The south leg has a crosswalk and curb ramps, and there are shared lane markings on the south and east legs.

Parkside Drive/Buena Vista Avenue is a four-legged stop-controlled intersection. All legs include crosswalks and curb ramps, and there are shared lane markings on the west, east, and north legs.

Parkside Drive/San Juan Avenue is a Y-shaped stop-controlled intersection with crosswalks and curb ramps on all three legs and shared lane markings on the two Parkside Drive legs.

Parkside Drive/Riviera Avenue is a four-legged intersection with Riviera Avenue stop-controlled and Parkside Drive uncontrolled. There are crosswalks and curb ramps on the south and east legs, and shared lane markings on the west and south legs.

North Main Street/Parkside Drive is a four-way signalized intersection with protected left-turn phasing in all four directions. There are curb ramps and crosswalks for all legs.

Parkside Drive/Lawrence Way is a signalized intersection with three legs, including the one-way outbound north leg. The signal operates with two phases, including one each for the westbound through and eastbound left-turn movements while the eastbound through movement is uncontrolled. There are curb ramps and a crosswalk on the north leg.

North Broadway/Parkside Drive is a signalized tee intersection with a protected left turn in the westbound direction. The south and east legs have crosswalks and curb ramps, and there are southbound shared lane markings and a northbound bicycle lane on North Broadway.

North Civic Drive/Parkside Drive is a three-legged intersection with signal control. There are crosswalks and curb ramps for all legs, and protected left-turn phasing in the northbound direction.

North Main Street/North California Boulevard-Lawrence Way is a signalized intersection where North California Boulevard intersects North Main Street from the southwest and Lawrence Way and Pine Street are one-way outbound to the northeast and east, respectively. There are crosswalks and curb ramps on the south, east, and northeast legs. The signal phasing alternates between the North California Boulevard approach and both North Main Street approaches.

North Broadway/Pine Street is a four-way stop-controlled intersection, with crosswalks and curb ramps on all legs. On North Broadway, there is a northbound bicycle lane and shared lane markings in the southbound direction.

North Civic Drive/Pine Street is a three-legged intersection with signal controls. There are crosswalks and curb ramps on all legs and protected northbound left-turn phasing.

North California Boulevard/Pringle Avenue is a four-way signalized intersection. Crosswalks and curb ramps exist on all legs and there are protected left-turn phases on North California Boulevard. There are bicycle lanes in both directions on the south leg.

North Main Street/Pringle Avenue is a four-way signalized intersection with permitted left-turn phasing in all directions. All legs have crosswalks and curb ramps.

North Main Street/Central Road is a three-legged intersection with stop control on Central Road and no intersection controls on North Main Street. There are curb ramps and a crosswalk on the east leg (Central Road).

North Broadway/Central Road is a three-legged intersection and has stop controls on the Central Road leg and no controls on the North Broadway legs. The west leg (Central Road) has curb ramps and a crosswalk, and there are shared lane markings in the southbound direction and bicycle lanes in the northbound direction on North Broadway.

The locations of the study intersections are shown in Figure 1, and the existing lane configurations and controls are shown in Figure 2.

Study Roadway

Ygnacio Valley Road is a Route of Regional Significance as defined by the Contra Costa Transportation Authority (CCTA) that traverses Walnut Creek between I-680 and Oak Grove Road. In the study area, Ygnacio Valley Road has three vehicle lanes and sidewalks on both sides. The speed limit ranges from 30 miles per hour (mph) near I-680 to 45 mph near Oak Grove Road. Signage is posted allowing bicyclists to ride on the sidewalk along the majority of the corridor.

Study Freeways

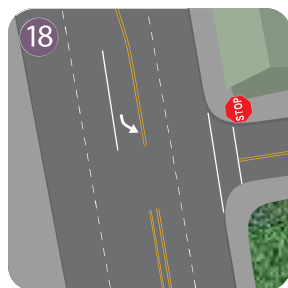
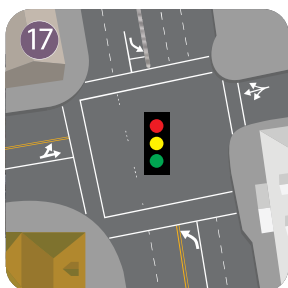
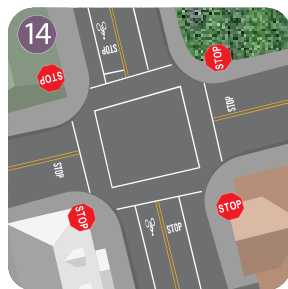
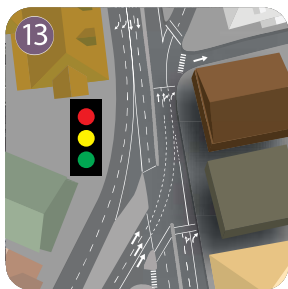
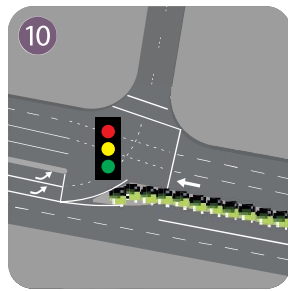
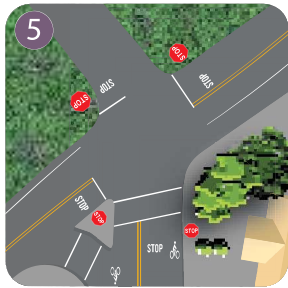
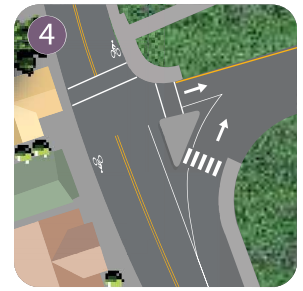
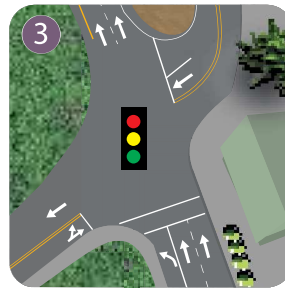
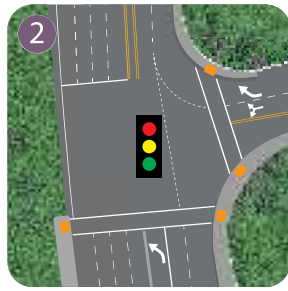
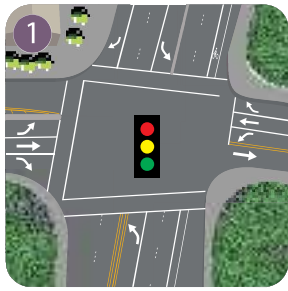
State Route 24 (SR-24) predominately runs east-west, connecting Walnut Creek, Lafayette, Orinda, and Oakland. The freeway has four or five travel lanes in each direction with a posted speed limit of 65 mph. According to most recent pre-COVID pandemic annual average daily traffic volume (AADT) data available from Caltrans, the segment of SR-24 within the study area had an average volume of approximately 210,000 vehicles per day in 2017.

I-680 predominately runs north-south, connecting Walnut Creek north to Fairfield and south to San Jose. The freeway has four to six travel lanes in each direction in the study area, with a posted speed limit of 65 mph and a high occupancy toll (express) lane in the southbound direction. In the study area, I-680 had an AADT of 262,500 vehicles per day in 2017.

Collision History

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a general safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is July 2016 through June 2021.

As presented in Table 5, the calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in *2018 Collision Data on California State Highways*, California Department of Transportation (Caltrans). These average rates statewide are for intersections in the same environment (urban, suburban, or rural), with the same number of approaches (three or four), and the same controls (all-way stop, two-way stop, uncontrolled, or traffic signal). Collision rates were equal to or lower than the statewide average for 12 of the 19 study intersections. The collision histories of the seven intersections with above average collision rates are described below. The collision rate calculations are provided in Appendix A.



LEGEND

Study Intersection

Transportation Analysis, Walnut Creek North Downtown Specific Plan SEIR
Figure 2 – Existing Lane Configurations

Table 5 – Collision Rates for the Study Intersections

Study Intersection	Number of Collisions (2016-2021)	Calculated Collision Rate (c/mve)	Statewide Average Collision Rate (c/mve)
1. N Main St/San Luis Rd	10	0.17	0.24
2. N Main St/Penniman Wy	10	0.14	0.20
3. Penniman Wy/Lawrence Way-I-680 N	6	0.16	0.24
4. Hillside Avenue/SR-24 W On-Ramp	0	0.00	0.06
5. Parkside Dr/Hillside Ave	1	0.06	0.17
6. Parkside Dr/Buena Vista Ave	3	0.15	0.17
7. Parkside Dr/San Juan Ave	2	0.13	0.07
8. Parkside Dr/Riviera Ave	3	0.13	0.09
9. North Main St/Parkside Dr	23	0.31	0.24
10. Parkside Dr/Lawrence Wy	12	0.35	0.20
11. N Broadway/Parkside Dr	6	0.20	0.20
12. N Civic Dr/Parkside Dr	6	0.14	0.20
13. N Main St/N California Blvd-Lawrence Wy	15	0.21	0.24
14. N Broadway/Pine St	4	0.18	0.17
15. N Civic Dr/Pine St	10	0.27	0.20
16. N California Blvd/Pringle Ave	9	0.25	0.24
17. N Main St/Pringle Ave	5	0.11	0.24
18. N Main St/Central Rd	1	0.03	0.09
19. N Broadway/Central Rd	1	0.05	0.09

Note: c/mve = collisions per million vehicles entering

There were two collisions reported at Parkside Drive/San Juan Avenue during the five-year study period, one involving a drunk bicyclist colliding with a parked vehicle, and another involving a driver improperly turning and colliding with a fixed object. With two collisions over five years, a trend could not be determined and therefore no remedial actions are suggested.

Similarly, there were three collisions reported at Parkside Drive/Riviera Avenue. One collision was the result of a northbound driver failing to yield right-of-way to an eastbound driver, another resulted from an eastbound driver turning left and colliding with an eastbound pedestrian in the south leg crosswalk, and the third collision was caused by an eastbound driver improperly passing a stopped vehicle. Without a discernable collision trend, no remedial or countermeasure actions are recommended.

The 23 collisions reported at North Main Street/Parkside Drive were attributed to various collision factors, with failing to yield right-of-way accounting for five collisions, speeding resulting in three collisions, drunk driving, unsafe lane changing, red-light running, and unsafe starting or backing causing two collisions each, and no other primary collision factor attributed to more than one collision. Congestion is likely also a contributing factor, as 19 of the 23 collisions occurred during the hours of 7:00 a.m. to 8:00 p.m., including five collisions during the hour between 6:00 p.m. and 7:00 p.m. The injury rate was slightly above the statewide average for similar facilities (47.8 percent versus 46.9 percent), though no fatalities were reported. The City may wish to consider as a general policy matter to address this existing condition, by, for example, increased enforcement of obeying right-of-way, speed

limits, and the traffic signal, and potentially adjusting signal timing to account for peak hour congestion. However, no remedial actions with respect to the proposed project are recommended.

Of the 12 collisions reported at Parkside Drive/Lawrence Way, nine were broadside collisions resulting from westbound drivers failing to obey the traffic signal and colliding with eastbound drivers turning left. This trend may be exacerbated by the low overpasses for Lawrence Way and BART over the westbound approach to the intersection which may impair visibility of the signal heads, particularly the red indications at the top of each signal head. The City may wish to consider, as a general policy matter to address this existing condition, by, for example, reconfiguring the signal heads to increase visibility for the westbound direction, such as installing horizontal signal heads, mounting signal heads lower to the ground, and/or placing signal heads or flashing beacons that activate on yellow and red indications ahead of the overpass structures. However, no remedial actions with respect to the proposed project are recommended.

At North Broadway/Pine Street, one collision each was caused by a southbound driver improperly turning into a fixed object, a northbound driver failing to stop at the stop sign and colliding with two eastbound pedestrians, an eastbound driver improperly passing and colliding with another vehicle, and a westbound driver on the wrong side of the road colliding with a northbound driver turning right. As each collision was caused by a driver approaching from a different direction and attributed to a different primary collision factor, no trend could be determined and therefore no remedial actions or countermeasures are suggested.

The most common primary collision factor attributed to the ten collisions reported at North Civic Drive/Pine Street was speeding, which accounted for six collisions. Increased speed enforcement may alleviate this trend. The second most common collision type was red light running by southbound drivers. The City may wish, as a general policy matter to address this existing condition, by, for example, increasing the signal head visibility for southbound drivers by replacing all eight-inch indications with 12-inch, and/or installing a signal on the left side of the intersection relative to and for southbound approaching drivers. However, no remedial or countermeasure actions with respect to the proposed project are recommended.

Four of the nine collisions at North California Boulevard/Pringle Avenue were primarily attributed to failure to yield right-of-way, along with two collisions attributed to speeding. The City may wish to consider, as a general policy matter to address this existing condition, by, for example, increased enforcement of right-of-way and speed limits to alleviate these types of collisions. However, no remedial or countermeasure actions with respect to the proposed project are recommended.

Project Data

This analysis evaluated the proposed project, which is described in more detail above. Because there is not currently a specific individual development proposal that has been formally submitted to the City, in order to provide a conservative analysis, a yield study was conducted to determine the maximum size allowable at each location for each land use type. The site plans resulting from this summary are set forth in Figure 3 for Scenario 1-CCC, Figure 4 for Scenario 2-HRC, and Figure 5 for Scenario 3-RRC.

In addition to the potential commercial office, multifamily residential, and hotel uses for Sites A, B, and C, it is assumed for purposes of this analysis that an expanded auto sales, services and ancillary uses would be constructed across Sites A-E to replace the existing auto sales use. Based on the yield studies, the majority of this expanded auto sales, services and ancillary uses would be located on Site A, with some square footage on Site C and no auto sales, services and ancillary uses at Site B. The square footages on Sites D and E were assumed to remain the same as existing. As explained above, it is reasonable to assume that the square footage of any replacement buildings would not be greater than the square footage of the existing buildings on Sites D and E, thus, the square footages on Sites D and E were assumed to remain the same as existing.

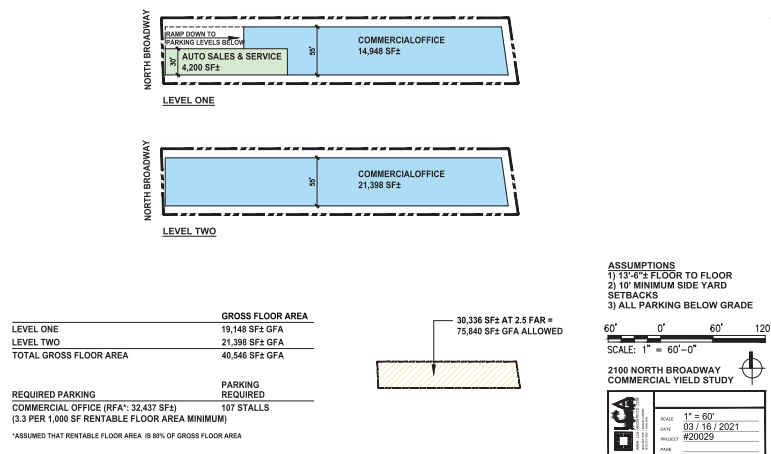
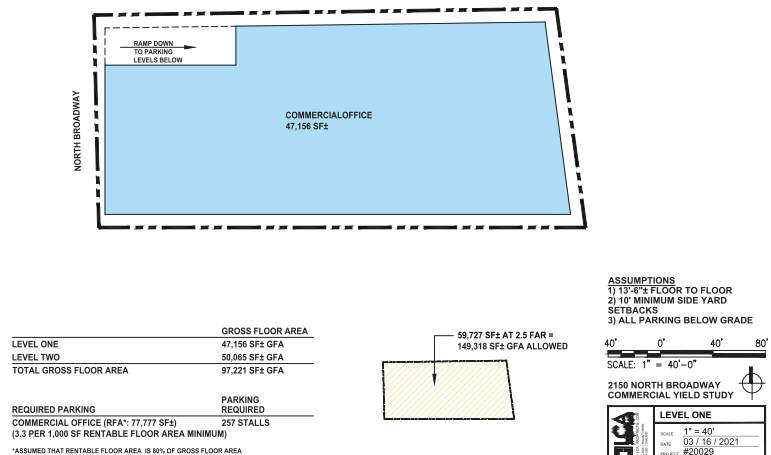
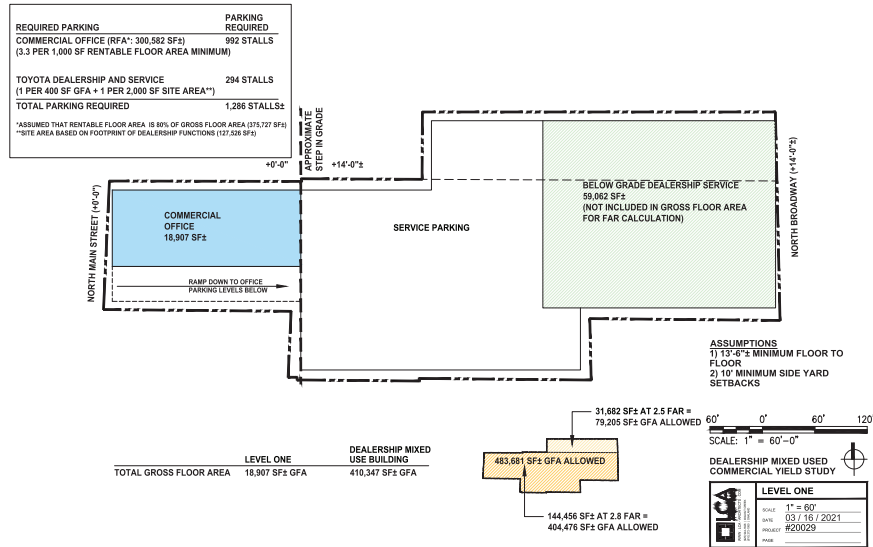
Trip Generation

The anticipated trip generation for each development scenario was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition, 2017. The published standard rates for General Office Building (Land Use #710), Multifamily Housing (Mid-Rise) (Land Use #221), Business Hotel (Land Use #312), and Automobile Sales (New) (Land Use #840) were applied as the descriptions for these land uses most closely match the land uses proposed in each development scenario. Deductions for the existing auto sales, services and ancillary uses were included to capture the increase in traffic associated with the addition of auto sales, services and ancillary square footage associated with the proposed project (which is assumed to occur under all scenarios) as compared to existing conditions.

Pedestrian, Bicycle, and Transit Trips

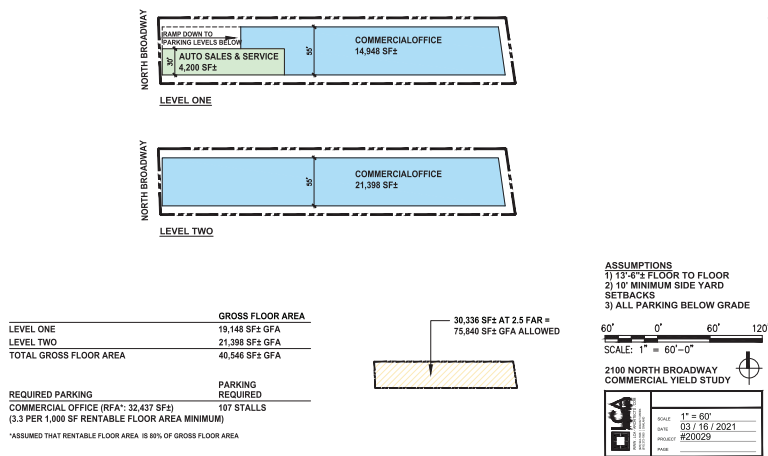
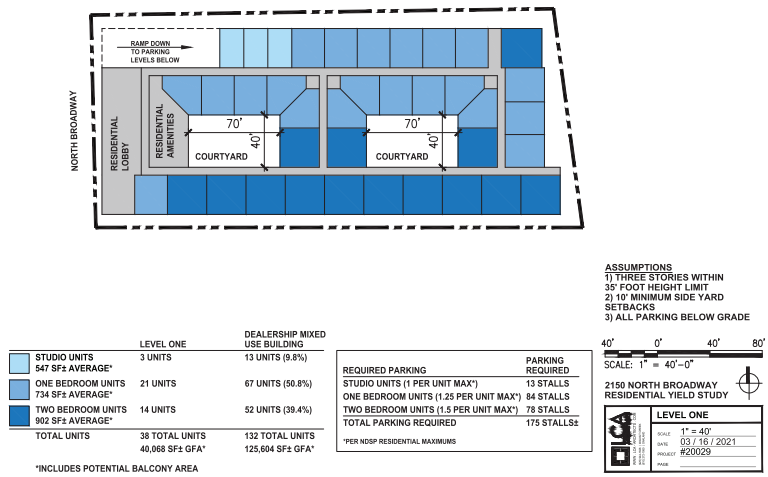
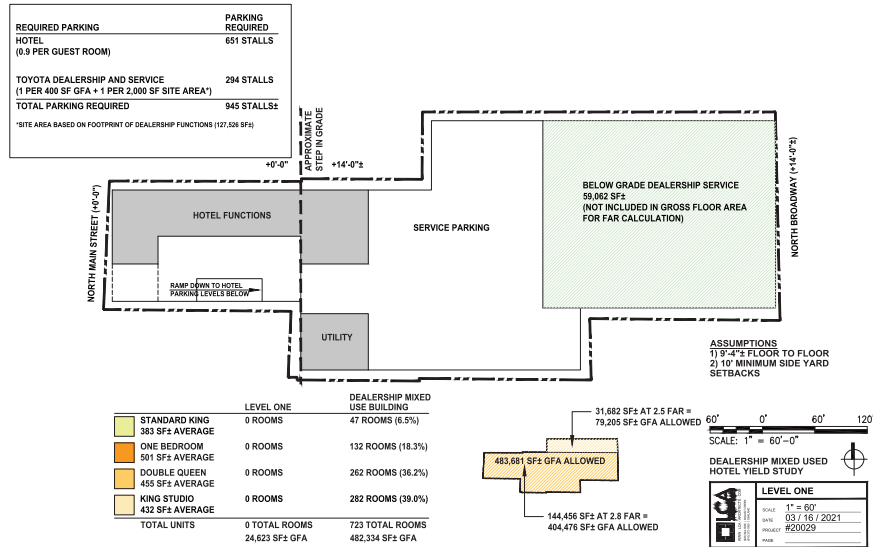
For purposes of this transportation study, the North Downtown Specific Plan EIR (2019 NDSP EIR), LSA, June 2018, was reviewed for relevant assumptions and methodologies to apply to the proposed project. It is noted that an exact comparison of the trip generation is not possible as the 2019 NDSP EIR used the 9th Edition of the *Trip Generation Manual*, which does not separate multi-family residential land uses into low-rise, mid-rise, and high-rise. Also, for trip reductions associated with non-auto modes, the 2019 NDSP EIR did not apply a consistent rate but rather used a proprietary methodology to approximate reductions.

Trip reductions attributable to non-auto modes by site users vary by time of day and whether the trips are inbound or outbound from the site. However, typically a four- to six-percent reduction is applied for transit use, a seven- to eight-percent reduction is assigned for bicycling or walking, and a five- to six-percent reduction is taken for internal trips between different sites. Accordingly, here, a five-percent reduction for transit use was applied to the residential and office land uses as the project site is between a quarter-mile and half-mile walking distance from the Walnut Creek BART station, as allowed by the *Transportation Impact Analysis Guidelines*, City of Walnut Creek, 2014. Additionally, a five-percent reduction was assigned for bicycling and walking due to the proximity of the project site to downtown Walnut Creek and other amenities, based on the rates provided in the 2019 NDSP EIR.

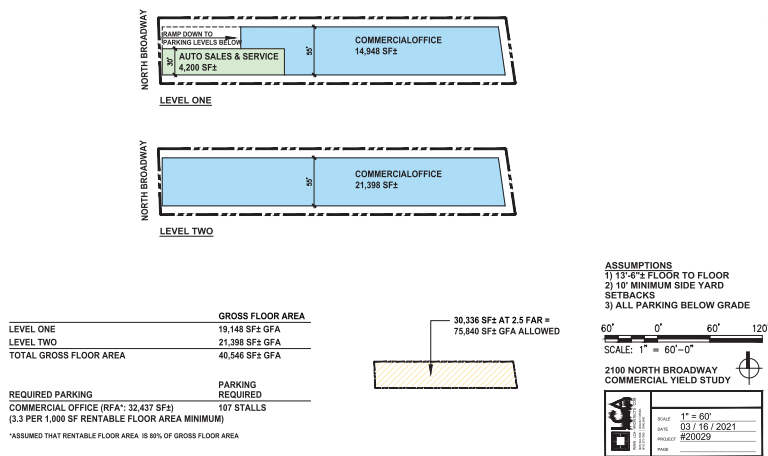
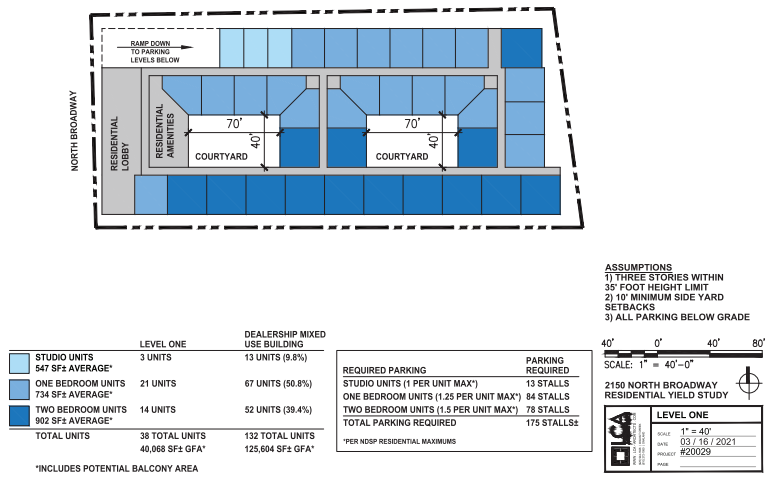
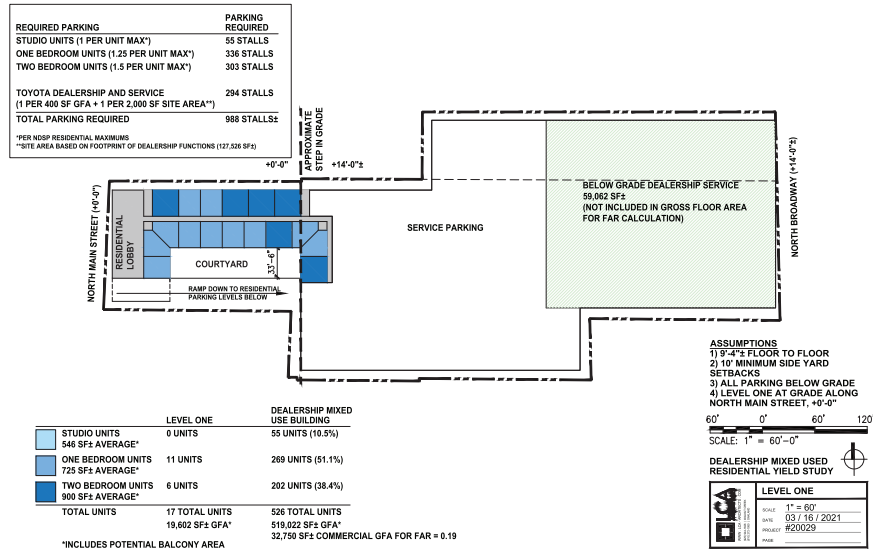


Transportation Analysis, Walnut Creek North Downtown Specific Plan SEIR

Figure 3 – Scenario 1-CCC Conceptual Site Plan



Transportation Analysis, Walnut Creek North Downtown Specific Plan SEIR
Figure 4 – Scenario 2-HRC Conceptual Site Plan



Transportation Analysis, Walnut Creek North Downtown Specific Plan SEIR

Figure 5 – Scenario 3-RRC Conceptual Site Plan

Total Project Trip Generation

Scenario 1-CCC is expected to generate an average of 7,802 trips per day, including 759 a.m. peak hour trips and 820 trips during the p.m. peak hour. With reductions for non-auto modes and existing land uses on Sites A through C applied, Scenario 1-CCC would generate a net increase of 5,952 daily trips, including 635 morning peak hour trips and 658 evening peak hour trips. These results are summarized in Table 6.

Table 6 – Scenario 1-CCC Trip Generation Summary

Site	Land Use	Units	ITE LU	Daily		AM Peak Hour				PM Peak Hour			
				Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Existing													
A-C	Auto Sales ¹	-66.464 ksf	840	27.84	-1,850	1.87	-124	-90	-34	2.43	-162	-65	-97
Subtotal (Existing)					-1,850		-124	-90	-34		-162	-65	-97
Proposed													
A-C	Auto Sales ¹	118.093 ksf	840	27.84	3,288	1.87	221	161	60	2.43	287	115	172
A	Office	375.727 ksf	710	9.74	3,660	1.16	436	375	61	1.15	432	69	363
B	Office	97.221 ksf	710	9.74	947	1.16	113	97	16	1.15	112	18	94
C	Office	40.546 ksf	710	9.74	395	1.16	47	40	7	1.15	47	7	40
Subtotal (Proposed)					8,290		817	673	144		878	209	669
Subtotal (Office Only)					5,002		596	512	84		591	94	497
Transit Trips ²				-5%	-250	-5%	-30	-26	-4	-5%	-30	-5	-25
Bicycle/Pedestrian Trips ²				-5%	-238	-5%	-28	-24	-4	-5%	-28	-4	-24
Total (Proposed)					7,802		759	623	136		820	200	620
Total (Proposed less Existing)					5,952		635	533	102		658	135	523

Notes: du = dwelling unit; rms = rooms; ksf = 1,000 square feet; ITE LU = Land Use code; Site A = 2100 N. Main Street; Site B = 2150 N. Broadway; Site C = 2100 N. Broadway

¹ "Auto sales" refers to auto sales, service and ancillary uses

² The reductions for transit, bicycle, and pedestrian trips were applied only to the Office land use

For Scenario 2-HRC, an estimated 7,198 daily trips would be generated including 588 morning and 613 evening peak hour trips. With deductions taken for transit, bicycle, and pedestrian mode share and for the existing land uses, Scenario 2-HRC would be anticipated to generate a net increase of 5,348 daily trips, with 464 a.m. peak hour trips and 451 p.m. peak hour trips. A summary of the trip generation for Scenario 2-HRC is provided in Table 7.

Table 7 – Scenario 2-HRC Trip Generation Summary

Site	Land Use	Units	ITE LU	Daily		AM Peak Hour				PM Peak Hour			
				Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Existing													
A-C	Auto Sales ¹	-66.464 ksf	840	27.84	-1,850	1.87	-124	-90	-34	2.43	-162	-65	-97
Subtotal (Existing)					-1,850		-124	-90	-34		-162	-65	-97
Proposed													
A-C	Auto Sales ¹	118.093 ksf	840	27.84	3,288	1.87	221	161	60	2.43	287	115	172
A	Hotel	723 rms	312	4.02	2,906	0.39	282	118	164	0.32	231	127	104
B	Residential	132 du	221	5.44	718	0.36	48	12	36	0.44	58	35	23
C	Office	40.546 ksf	710	9.74	395	1.16	47	40	7	1.15	47	7	40
Subtotal (Proposed)					7,307		598	331	267		623	284	339
Subtotal (Office and Resdntl. Only)					1,113		95	52	43		105	42	63
Transit Trips ²				-5%	-56	-5%	-5	-3	-2	-5%	-5	-2	-3
Bicycle/Pedestrian Trips ²				-5%	-53	-5%	-5	-3	-2	-5%	-5	-2	-3
Total (Proposed)					7,198		588	325	263		613	280	333
Total (Proposed less Existing)					5,348		464	235	229		451	215	236

Notes: du = dwelling unit; rms = rooms; ksf = 1,000 square feet; ITE LU = Land Use code; Site A = 2100 N. Main Street; Site B = 2150 N. Broadway; Site C = 2100 N. Broadway

¹ "Auto sales" refers to auto sales, service and ancillary uses

² The reductions for transit, bicycle, and pedestrian trips were applied only to the Office and Residential land uses

Construction of Scenario 3-RRC would result in a project trip generation of 6,874 daily trips, which would include 477 trips during the a.m. peak hour and 590 trips during the p.m. peak hour. This would represent a net increase of 5,024 trip per day, including 353 morning peak hour trips and 428 evening peak hour trips when reductions are taken for the existing land use and non-auto mode share. The trip generation of Scenario 3-RRC is included in Table 8.

Table 8 – Scenario 3-RRC Trip Generation Summary

Site	Land Use	Units	ITE LU	Daily		AM Peak Hour				PM Peak Hour			
				Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Existing													
A-C	Auto Sales ¹	-66.464 ksf	840	27.84	-1,850	1.87	-124	-90	-34	2.43	-162	-65	-97
Subtotal (Existing)					-1,850		-124	-90	-34		-162	-65	-97
Proposed													
A-C	Auto Sales ¹	118.093 ksf	840	27.84	3,288	1.87	221	161	60	2.43	287	115	172
A	Residential	526 du	221	5.44	2,861	0.36	189	49	140	0.44	231	141	90
B	Residential	132 du	221	5.44	718	0.36	48	12	36	0.44	58	35	23
C	Office	40.546 ksf	710	9.74	395	1.16	47	40	7	1.15	47	7	40
Subtotal (Proposed)					7,262		505	262	243		623	298	325
Subtotal (Office and Resdntl. Only)					3,974		284	101	183		336	183	153
Transit Trips ²				-5%	-199	-5%	-14	-5	-9	-5%	-17	-9	-8
Bicycle/Pedestrian Trips ²				-5%	-189	-5%	-14	-5	-9	-5%	-16	-9	-7
Total (Proposed)					6,874		477	252	225		590	280	310
Total (Proposed less Existing)					5,024		353	162	191		428	215	213

Notes: du = dwelling unit; ksf = 1,000 square feet; ITE LU = Land Use code; Site A = 2100 N. Main Street; Site B = 2150 N. Broadway; Site C = 2100 N. Broadway

¹ "Auto sales" refers to auto sales, service and ancillary uses

² The reductions for transit, bicycle, and pedestrian trips were applied only to the Office and Residential land uses

The projected trip generations of all three proposed land use scenarios are summarized in Table 9.

Table 9 – Trip Generation Summaries

Scenario	No Deductions			With Deductions		
	Daily Trips	Peak Hour Trips		Daily Trips	Peak Hour Trips	
		AM	PM		AM	PM
1-CCC	7,802	759	820	5,952	635	658
2-HRC	7,198	588	613	5,348	464	451
3-RRC	6,874	477	590	5,024	353	428

Notes: CCC = all commercial office uses (assumed to occur on Sites A through C); HRC = hotel use, residential use, and commercial office use (assumed to occur on Sites A through C, respectively); and RRC consists of residential uses (assumed to occur on Sites A and B and commercial office uses (assumed to occur on Site C).

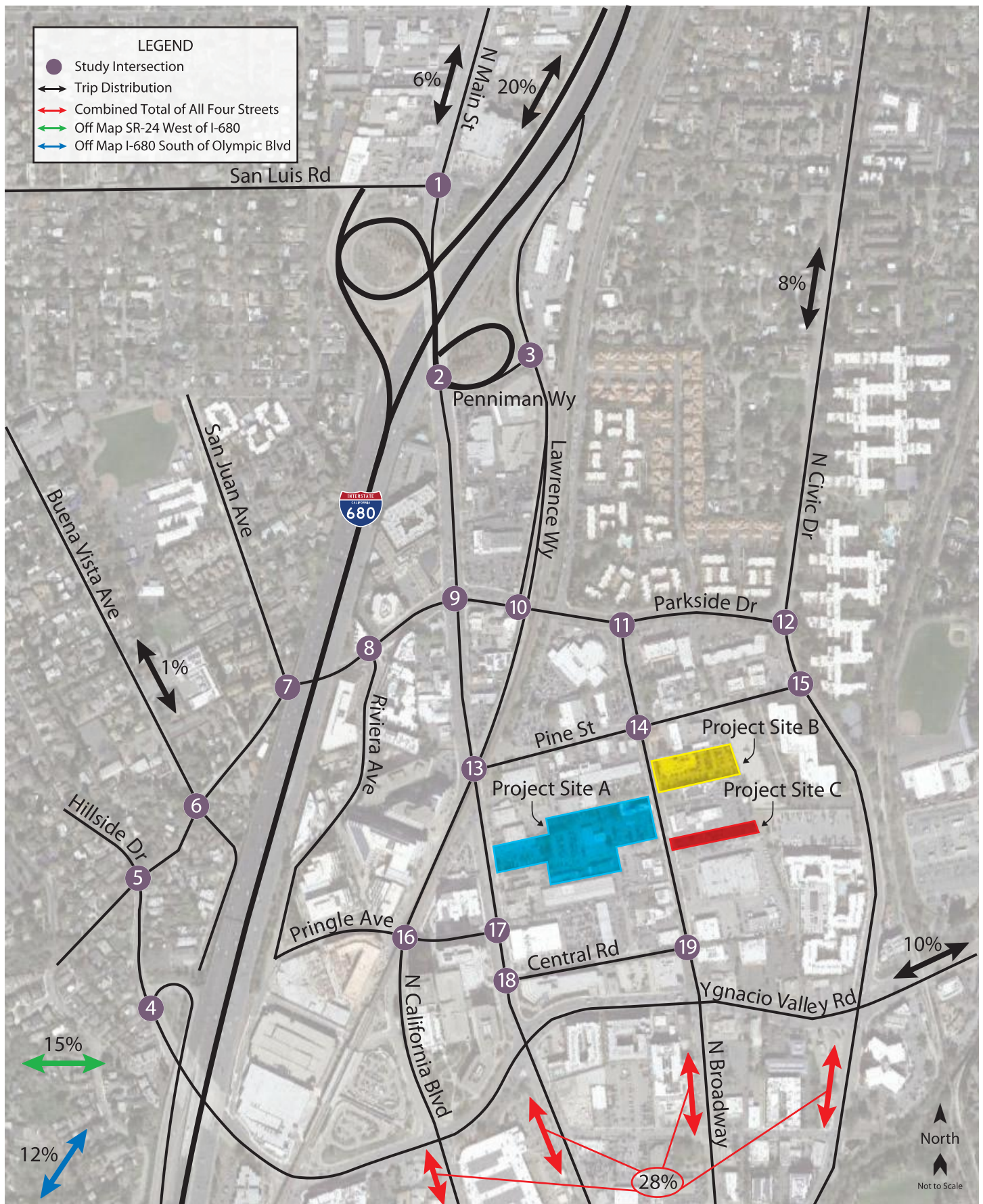
Trip Distribution

The pattern used to allocate new project trips to the street network was determined by reviewing the 2019 NDPS EIR and applying the same trip distribution assumptions, which are based on the Countywide Travel Demand Model provided by the CCTA. The proposed trip distribution assumptions are the same for all three scenarios and are shown in Table 10.

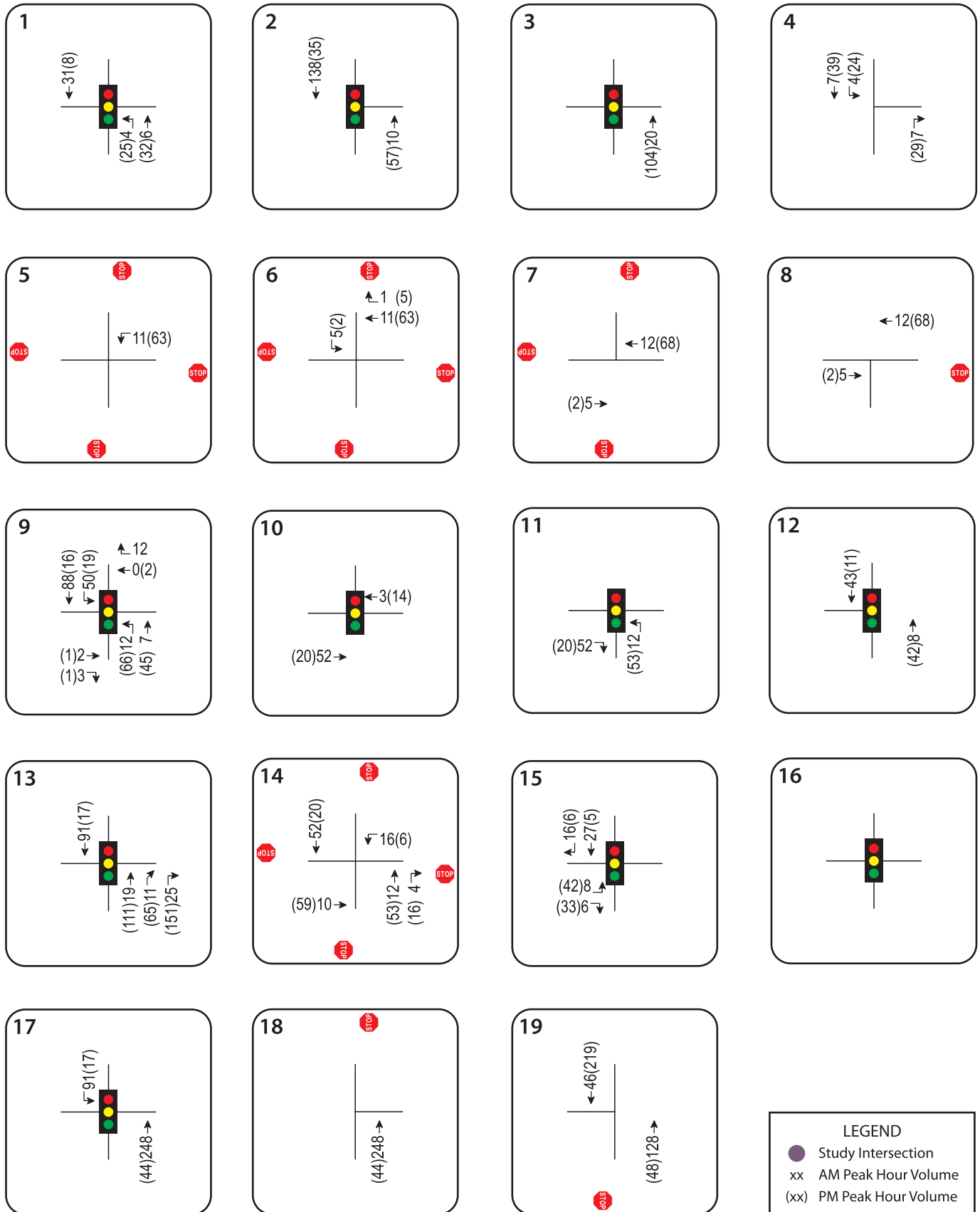
Table 10 – Trip Distribution Assumptions

Route	Percent
N Main St and N Broadway south of Ygnacio Valley Rd	28%
I-680 north of N Main St	20%
SR-24 west of I-680	15%
I-680 south of Olympic Blvd	12%
Ygnacio Valley Rd east of Civic Dr	10%
N Civic Dr north of Parkside Dr	8%
N Main St north of San Luis Rd	6%
Buena Vista Ave west of Parkside Dr	1%
TOTAL	100%

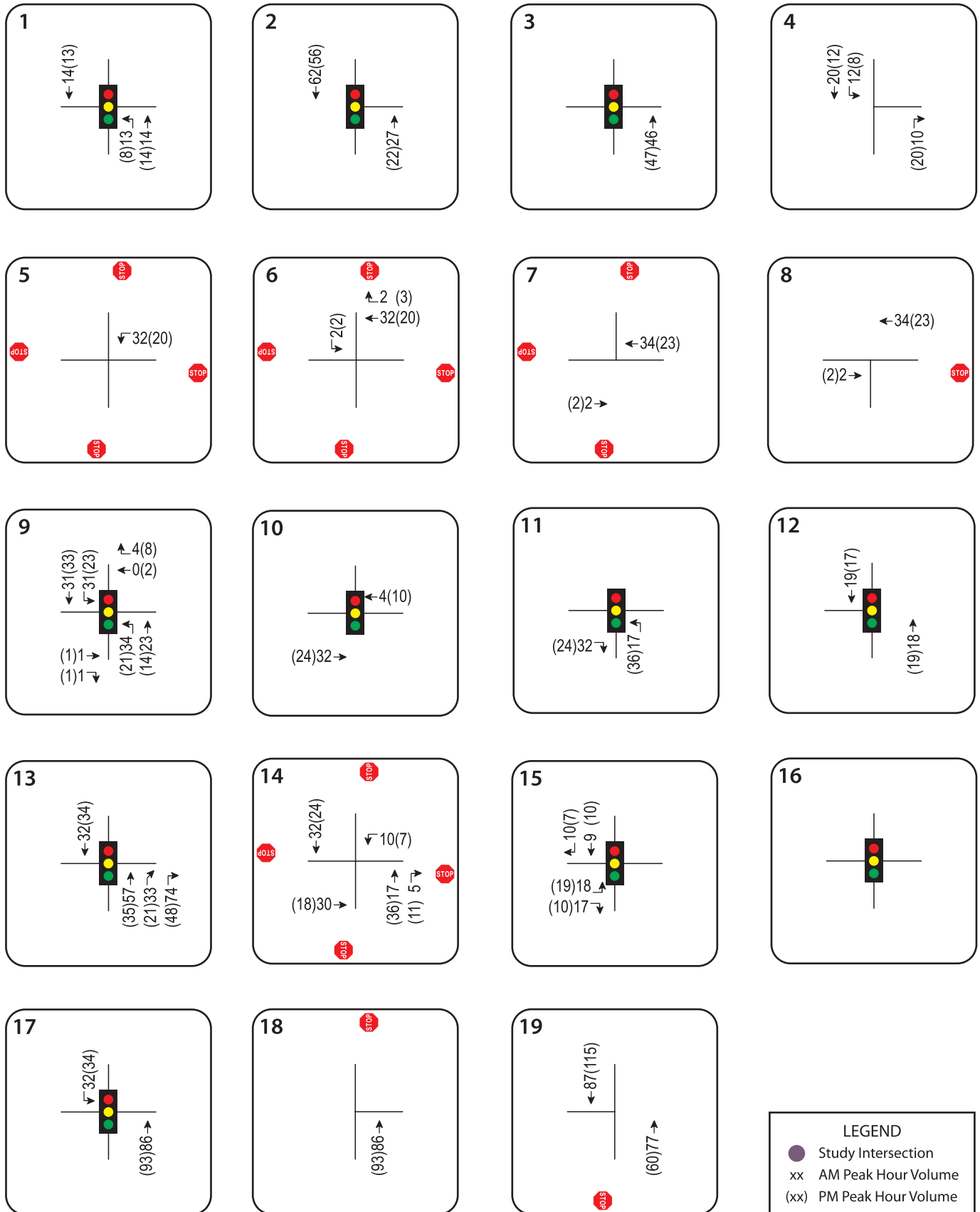
These trip distributions are shown relative to the study area in Figure 6. With the trip distribution assumptions applied to each development scenario trip generation, the resulting project intersection volumes are shown in Figure 7 for Scenario 1-CCC, Figure 8 for Scenario 2-HRC, and Figure 9 for Scenario 3-RRC.



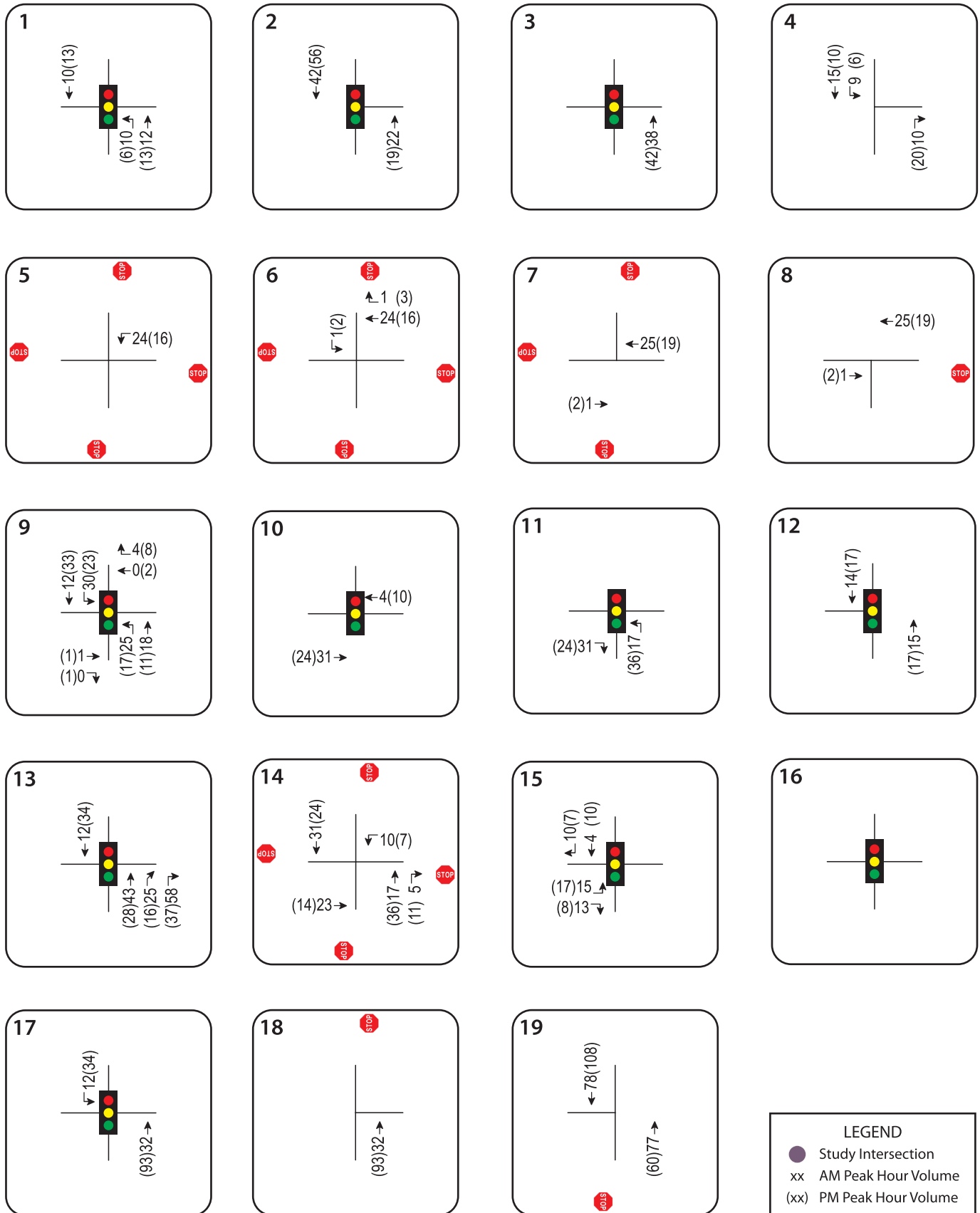
Transportation Analysis, Walnut Creek North Downtown Specific Plan SEIR
Figure 6 – Trip Distributions



Transportation Analysis, Walnut Creek North Downtown Specific Plan SEIR
Figure 7 – Scenario 1-CCC Project Traffic Volumes



Transportation Analysis, Walnut Creek North Downtown Specific Plan SEIR
Figure 8 – Scenario 2-HRC Project Traffic Volumes



Circulation System

This chapter addresses the first of four CEQA Transportation/Traffic items:

- Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

City Circulation System Standards

The proposed project's impacts on pedestrian, bicycle, and transit facilities are governed by criteria from several documents. The *General Plan 2025*, City of Walnut Creek, 2006, contains the following principles, goals, policies, and actions that are relevant to this analysis. It is noted that the "Core Area" and "downtown" are defined as the area bound by the Iron Horse Trail, I-680, and Walden Road, which includes the project site and most of the study intersections.

- *Principle: Downtown:* Walnut Creek will provide for a vibrant downtown community that encourages people to gather in a compact, pedestrian-friendly environment and successfully combines a unique mix of businesses, culture, and a variety of housing. Walnut Creek will continue to support development that adds positively to this mix. Additionally, the City will promote an accessible downtown that provides parking near stores and services and is connected both to transit and to safe, friendly pedestrian and bicycle routes.
- *Principle: Circulation:* The City seeks to provide for a convenient flow of people, goods, and services by managing traffic congestion and by working with regional agencies to address regional transportation issues. The City encourages housing opportunities near jobs, businesses oriented to the street, and the creation of a pleasant walking environment.
- *Principle: Accessibility:* The City recognizes the importance of accessibility to various destinations in and around the City, including for those who don't drive. The City will look at ways to improve accessibility and transit alternatives.
- *Quality of Life Goal 7:* Provide publicly accessible outdoor spaces in the Core Area.
 - *Policy 7.2:* Encourage the development of, maintenance of, and connectivity between high-quality public spaces in the Core Area.
 - *Action 7.2.1:* Define, design, and complete a network of public walkways and small public spaces in the Core Area.
- *Quality of Life Goal 11:* Promote a healthy community.
 - *Action 11.2.1:* Encourage pedestrian- and bike-friendly development and redevelopment that encourages physical activity.
- *Transportation Goal 3:* Maintain a transportation network that provides mobility for all ages and abilities and for all areas of the community.
 - *Policy 3.1:* Maintain the level of service standards for roadways shown in Figure 2 for the City's transportation network.
- *Transportation Goal 9:* Promote a pedestrian-friendly downtown.
 - *Policy 9.1:* Balance the needs of drivers with downtown's pedestrian scale and existing and proposed transit and bicycle access.
 - *Action 9.2.1:* Convert selected streets to temporary pedestrian-only use on a regularly scheduled basis.
 - *Policy 9.3:* Promote pedestrian safety in the downtown area.
 - *Action 9.3.1:* In new development, encourage mid-block walkways from street to street.
- *Transportation Goal 10:* Promote safe bicycling to and through downtown.
 - *Policy 10.1:* Link existing and planned bikeways in and through downtown.
- *Transportation Goal 12:* Provide convenient and adequate parking.
 - *Policy 12.1:* Balance the need for convenient parking access with potential negative impacts on traffic and pedestrian flow.
 - *Action 12.1.1:* Manage the supply, location, and demand for downtown parking.

- *Policy 12.2:* Promote a wide variety of public and private parking options.
 - *Action 12.2.1:* Provide short-term parking.
 - *Action 12.2.4:* Implement “park once and walk” facilities and programs from centralized public parking locations in the Pedestrian Retail District.

The *Bicycle Plan*, City of Walnut Creek, 2011, includes several relevant policies and actions.

- *Policy 7:* Create an efficient network of bike facilities that help support bicycle use as a viable mode of transportation.
- *Policy 8:* Improve existing roadways to accommodate new or upgraded bicycle facilities.
- *Policy 9:* Improve bicycle facilities to achieve safe, efficient connectivity while minimizing impacts to users of other transportation modes.
 - *Action 9.1:* Integrate new bike facilities when designing new or modifying existing roadways, where possible.

The *Pedestrian Master Plan*, City of Walnut Creek, 2016, includes the following relevant goal.

- *PMP Goal 4:* Maintain the Pedestrian Retail District and Core Area as premier walking environments.

The *North Downtown Specific Plan* (NDSP), City of Walnut Creek, 2019, includes the following relevant mobility goals for the study area.

- **Multimodal transportation.** To support and expand existing transit, bicycle and pedestrian transportation to manage traffic congestion, serve a diverse population, and build a resilient local transportation system.
- **Build on N. Main St./YVR Specific Plan.** To expand upon the mobility concepts of the North Main Street/Ygnacio Valley Road (NMS/YVR) Specific Plan, which was adopted in 2002 prior to the arrival of denser and more urbanized residential development in areas in and near the NMS/YVR Specific Plan Area.
- **Reinvestment in transportation infrastructure.** To direct and facilitate reinvestment and redevelopment within this portion of the Core Area of the City and to identify new infrastructure improvements needed to expand access to a broad range of transportation options, including walking, bicycling, and transit.
- **Non-vehicular connections.** To identify where optimal non-vehicular transportation connections should occur and create and implement land use policies that take full advantage of the Plan Area’s proximity to the Walnut Creek BART station and the traditional downtown.

The *Transportation Impact Analysis Guidelines*, City of Walnut Creek, 2014, includes the following significance standards for project impacts on bicycle, pedestrian, or transit facilities. A significant impact would occur if a project:

- Significantly disrupts an existing bicycle, pedestrian, or transit facility, including the continuity of bicycle and pedestrian flow along bikeways and sidewalks, and access to transit stops by patrons and transit vehicles.
- Interferes with the implementation of a planned bicycle, pedestrian, or transit facility that is included in the City’s General Plan, Bicycle Master Plan, or Pedestrian Master Plan.

Pedestrian Facilities

Existing and Planned Pedestrian Facilities

In general, pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, a network of sidewalks, crosswalks, pedestrian signals, and curb ramps provide access for pedestrians in the vicinity of the project site.

The NDSP contains policies designed to encourage pedestrian and bicycle connectivity and use of alternative modes of transportation. Much of the NDSP area (including the project site) is considered a high-demand pedestrian zone, and thus the NDSP reflects the City's desire to create an efficient, safe and continuous network of bike and pedestrian facilities that help support these alternative modes of transportation. The NDSP: (1) envisions east-west connections to provide a diverse network of blocks, streets, and pathways, as well as (2) incorporates a number of goals to improve the pedestrian experience, public space, aesthetics, and design quality by, among other things, encouraging active ground-floor uses and frontages to support pedestrian activity. The proposed project incorporates a public trail on a portion of Site A as a project design feature, in a manner consistent with the NDSP policies and to facilitate use of alternative modes of travel.

The NDSP includes Circulation Network Policy MB 1.3 "Mid-block paths. Provide new connections, including mid-block paths, to break up large blocks and provide more options for pedestrian and bicyclists." This is consistent with Action 9.3.1 of the General Plan 2025, which states that "in new development, encourage mid-block walkways from street to street."

Finding – Existing pedestrian facilities serving the project site are generally adequate. The proposed project includes a public trail on a portion of Site A that is consistent with NDSP policies that encourage the use of alternative modes of travel.

Bicycle Facilities

Existing and Planned Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2017, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

Class I, II, and III facilities are present throughout the study area, including the Class I Iron Horse Regional Trail and bicycle lanes on North California Boulevard, North Main Street, and in the northbound direction of North Broadway. It is noted that bicyclists are allowed to ride on the sidewalk on certain portions of Ygnacio Valley Road. Bicyclists ride in the roadway alongside vehicle traffic on all other roads in the study area. Table 11 summarizes the existing and planned bicycle facilities in the project vicinity, as contained in the *Bicycle Plan* and NDSP.

Table 11 – Bicycle Facility Summary

Status Facility	Class	Length (miles)	Begin Point	End Point
Existing				
Iron Horse Regional Trail*	I	2.8	Walden Rd	Danville Blvd
N California Blvd	II	0.8	Pringle Ave	Olympic Blvd
N Main St	II	0.7	Geary Rd	San Luis Rd
N Broadway	II/III	0.3	Parkside Dr	Ygnacio Valley Rd
Buena Vista Ave	III	0.6	San Luis Rd	Parkside Dr
Hillside Ave	III	0.2	Parkside Dr	I-680
Parkside Dr	III	0.2	Buena Vista Ave	Riviera Ave
Riviera Ave	III	0.3	Parkside Dr	Pringle Ave
San Luis Rd	III	0.9	Conejo Wy	N Main St
Ygnacio Valley Rd	III	2.1	I-680	San Carlos Dr
Planned				
Mid-Block Path	I	0.4	N Main St	Iron Horse Trail
N California Blvd	I	0.1	N Main St	Pringle Ave
N Main St	I	0.2	Parkside Dr	Pringle Ave
Pine St	I	0.3	N Main St	N Civic Dr
Ygnacio Valley Rd	I	0.5	N California Blvd	Iron Horse Trail
Civic Dr-N Civic Dr	II/III	1.3	N California Blvd	Walden Rd
Pringle Ave	II	0.2	Riviera Ave	N Main St
Parkside Dr	II	0.7	Hillside Ave	N Civic Dr

Note: * Only the portion within the City of Walnut Creek is noted.

Sources: *Bicycle Plan*, City of Walnut Creek, 2011; *North Downtown Specific Plan*, City of Walnut Creek, 2019

It is noted that the NDSP includes a proposed Class III Bicycle Route on Civic Drive while the *Bicycle Plan* lists this proposed facility as a Class II Bicycle Lane.

Project Impacts on Bicycle Facilities

Existing bicycle facilities are expected to provide adequate access for bicyclists serving the project site and would be enhanced upon completion by the City of planned facilities as part of the City's implementation of its Citywide Capital Improvement Plan (CIP). The proposed public trail discussed in the Pedestrian Facilities section would provide the same connections for bicyclists.

Finding – Bicycle facilities serving the project site are generally adequate. The proposed project incorporates as a project design feature a public trail on a portion of Site A in a manner consistent with NDSP policies (as amended), which would facilitate use of alternative modes of travel.

Bicycle Storage

The NDSP specifies a bicycle parking requirement for new developments of ten percent of vehicle parking required for commercial uses, and for multi-family residential uses the requirement per bedroom or studio unit includes 0.05 short-term bicycle parking spaces and 0.50 long-term spaces. At least one short-term and one long-

term space is required for all projects. One shower and four clothing lockers per 25 bicycle spaces are required for all commercial uses with at least 25 bicycle spaces. With respect to the vehicle parking requirements for the commercial uses (office and auto sales and service) are 1,711 vehicle spaces required for Scenario 1-CCC, 1,113 spaces for Scenario 2-HRC, and 462 spaces for Scenario 3-RRC. The bicycle parking requirements are summarized in Table 12.

Table 12 – Bicycle Parking Requirements									
Type of Bicycle Parking	Commercial			Residential Short-Term			Residential Long-Term		
Scenario	1-CCC	2-HRC	3-RRC	1-CCC	2-HRC	3-RRC	1-CCC	2-HRC	3-RRC
Rate	10% of Vehicle Spaces			0.05 per Bed			0.50 per Bed		
Units (Vehicle Spaces or Beds)	1,711	1,113	462	-	132	658	-	132	658
Bicycle Spaces Required	171	111	46	-	7	33	-	66	329
Showers (1 per 25 Commercial Bicycle Spaces)	7	4	2	-	-	-	-	-	-
Clothing Lockers (4 per 25 Commercial Bicycle Spaces)	28	16	8	-	-	-	-	-	-

Finding – The proposed project would provide adequate bicycle parking under each scenario to meet applicable City requirements. For Scenario 1-CCC, a total of 171 bicycle spaces would be required including at least one short-term and one long-term space, along with seven showers and 28 clothing lockers. For Scenario 2-HRC, the commercial uses would be required to have 111 bicycle parking spaces, four showers, and 16 clothing lockers, whereas the residential uses would be required to have seven short-term and 66 long-term spaces. The Scenario 3-RRC requirement would include 46 bicycle spaces, two showers, and eight clothing lockers for the commercial uses, and 33 short-term and 329 long-term bicycle spaces for the residential uses.

Transit Facilities

Regional and local, fixed-route bus transit service is provided by the County of Contra Costa through County Connection (CCCTA), Solano Transportation Authority through SolTrans, and Livermore Amador Valley Transit Authority through Wheels. These bus services connect to regional Bay Area Rapid Transit (BART) stations, as well as the Martinez Amtrak and Pleasanton ACE train stations. Bus stops in downtown Walnut Creek provide a connection between local and regional transit services and the project site as summarized in Table 13. The nearest bus stops to the project site are at Pringle Avenue/North Main Street for Route 4, North Main Street/Parkside Drive for Routes 9 and 98X, Ygnacio Valley Road/Civic Drive for Routes 1, 92X, 93X, and 301, North Civic Drive/Ygnacio Valley Road for Routes 14 and 311, and the Walnut Creek BART station for all other routes. All routes other than Route 92X stop at the Walnut Creek BART station.

Table 13 – Transit Routes

Transit Agency Route	Distance to Stop (mi) ¹	Service			Connection
		Days of Operation	Time	Frequency	
County Connection					
Route 1	0.21	Weekdays	6:00 AM–8:00 PM	60 min	Rossmoor/Shadelands to Walnut Creek BART
Route 4	0.05	Weekdays Weekends	7:00 AM–8:30 PM 9:30 AM–6:45 PM	20 min 20 min	Broadway Plaza to Walnut Creek BART
Route 5	0.33	Weekdays	5:45 AM–7:00 PM	40 min	Creekside to Walnut Creek BART
Route 9	0.18	Weekdays	6:00 AM–9:30 PM	60 min	Diablo Valley College to Walnut Creek BART
Route 14	0.28	Weekdays	5:30 AM–9:30 PM	30 min	Concord to Walnut Creek BART
Route 21	0.33	Weekdays	5:30 AM–9:30 PM	30-60 min	San Ramon to Walnut Creek BART
Route 92X	0.21	Weekdays	5:30 AM–7:30 AM 3:30 PM–7:45 PM	60 min	Walnut Creek to Danville, San Ramon, and Pleasanton ACE Station
Route 93X	0.21	Weekdays	5:00 AM–7:30 AM 4:00 PM–8:00 PM	20-50 min	Antioch to Walnut Creek BART
Route 95X	0.33	Weekdays	6:00 AM–8:45 AM 3:15 PM–7:15 PM	30 min	San Ramon to Walnut Creek BART
Route 96X	0.33	Weekdays	6:15 AM–9:30 AM 3:00 PM–7:30 PM	30 min	San Ramon to Walnut Creek BART
Route 98X	0.18	Weekdays	5:45 AM–7:30 PM	30-60 min	Martinez to Walnut Creek BART
Route 301	0.21	Weekends	8:30 AM–6:30 PM	60 min	John Muir to Walnut Creek BART
Route 311	0.28	Weekends	8:30 AM–8:30 PM	60 min	Concord BART to Walnut Creek BART
Route 321	0.33	Weekends	7:15 AM–9:30 PM	60 min	San Ramon to Walnut Creek BART
Bay Area Rapid Transit (BART)					
Yellow	0.33	Weekdays Saturdays Sundays	4:45 AM–1:45 AM 5:45 AM–1:45 AM 7:15 AM–10:45 PM	15-30 min 15-30 min 30 min	Antioch to San Francisco International Airport (SFO)
SolTrans					
Route Y	0.33	Weekdays Weekends	5:30 AM–11:30 PM 6:20 AM–9:50PM	90-100 min 100-130 min	Vallejo to Walnut Creek BART
Wheels					
Route 70X ²	0.33	Weekday	5:40 AM–8:50 PM 4:00 AM–7:10 PM	30 min 30 min	Dublin/Pleasanton BART to Walnut Creek BART

Notes: ¹ Defined as the shortest walking distance between the project site and the nearest bus stop

² Temporarily suspended due to COVID-19 service reductions

Two bicycles can be carried on most County Connection, SolTrans, and Wheels buses. Bike rack space is on a first-come, first-served basis. Riders are allowed to bring bicycles onto BART as long as the BART car is not crowded, the first car of the train, or the first three cars during commute hours. There are designated bicycle priority spaces in each BART car.

LINK Paratransit is designed to serve the needs of individuals within the City and the greater Contra Costa County area who are unable to travel independently. This service operates in all areas of central Contra Costa County that are no more than 1.5 miles from a bus stop or train station.

The demand for transit that would be generated by the proposed project would be spread across the existing 17 transit lines within a half-mile walk from the project site. Additionally, transit operators periodically assess their service and adjust as needed in response to changes in demand, funding, or other considerations. Therefore, existing transit routes are adequate to accommodate project-generated transit trips. County Connection is aware of this project and has not provided comments at the time of publication.

Existing stops are within an acceptable walking distance of the project site, and constructing the proposed public shared-used path on Site A would reduce the walking distance between the project uses and nearest transit stops, increasing the appeal and accessibility of transit.

Finding – Transit facilities serving the project site would be adequate for the proposed project under all three scenarios. In addition, the proposed project would incorporate a public trail on a portion of Site A as a project design feature in a manner consistent with NDSP policies. This would also enhance connectivity and appeal of the multitude of nearby transit services.

Vehicle Miles Traveled

The following chapter provides an analysis of the second of four CEQA Transportation/Traffic checklist items, regarding Vehicle Miles Traveled (VMT).

- Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?

City Vehicle Miles Traveled Standard

In October 2020, the City of Walnut Creek adopted VMT thresholds of significance and local criteria for analysis in *Resolution 20-70*. The Resolution defines the following project types and metrics:

- **Residential** – Use the Home-based VMT per resident;
- **Employment (e.g., office)** – Use the Home-to-work “commute” VMT per employee;
- **Regional-serving (e.g., retail)** – Based on the Total VMT per service population;
- **Mixed-use projects** – Assess each component individually, or base it on the dominant use; and
- **Non-standard projects** – Analyze each component per the metrics above, such as for hospitals using VMT per employee the above metric for employees, and VMT for patients using the regional-serving metric above.

The Resolution then defines the following thresholds of significance regarding VMT:

- **Residential** – Home-based VMT is higher than 85 percent of the existing County-wide average;
- **Employment (e.g., office)** – Home-work VMT is higher than 85 percent of the existing nine-county Bay Area average;
- **Regional-serving (e.g., retail)** – VMT per service population is higher than 85 percent of the existing County-wide average;
- **Mixed-use projects** – Thresholds are per the component land uses above, or the dominant use; and
- **Non-standard projects** – Thresholds are per each component as measured against the above thresholds.

The Resolution defines a variety of screening thresholds; projects that meet such thresholds may be exempt (or “screened out”) from the requirement to include a detailed VMT analysis, as the impact to VMT would be presumed to be less than significant. Such screened-out projects include those fulfilling at least one of the following conditions:

- Any project that is exempt from CEQA.
- Projects with less than 10,000 square feet of non-residential space or 20 or fewer residential units, or otherwise generating less than 836 VMT per day.
- Retail uses smaller than 30,000 square feet and without a drive-through component.
- Projects located within a transit priority area, which includes areas within one-half mile of a BART station. This exemption does not apply to projects that have a floor-area ratio (FAR) of less than 0.75, include parking in excess of City requirements, are not consistent with applicable Sustainable Communities Strategies (SCS), or result in a net reduction of multi-family units. For the City of Walnut Creek, the relevant SCS document is the *Plan Bay Area 2050*, Association of Bay Area Governments and Metropolitan Transportation Commission, May 2021.
- Residential projects within areas that have existing residential VMT more than 85 percent below the existing County-wide average, and employment projects within areas with employee VMT more than 85 percent below the existing regional average.
- Residential projects that would provide 100 percent affordable housing.

The City retains the ability to require an analysis of the effects of a project on the City's circulation system to evaluate consistency with General Plan goals and policies as part of a non-CEQA, informational analysis. If a significant impact to VMT is determined, mitigation in the form of a Transportation Demand Management (TDM) plan may be required.

Project Screening

The *Citywide TDM Requirements*, City of Walnut Creek, 2021, include VMT screening maps that show VMT per employee compared to the regional average, and VMT per resident compared to the County-wide average, including transportation analysis zones (TAZs) split into TAZs with 85 percent or less of the regional or Countywide average, between 85 and 100 percent of the average, and those that are above average VMT. The relevant Sites are split across TAZ 20205 and TAZ 20206, which are collectively bound by Parkside Drive, North Civic Drive, Ygnacio Valley Road, and North Main Street. Both of these TAZs are depicted as having VMT equal to or less than 85 percent of the regional or Countywide average for employees and residents, respectively. This means that Scenario 1-CCC and Scenario 3-RRC would be exempted (or screened out) from needing to conduct a detailed VMT analysis based on the screening for projects in areas with VMT 85 percent or less of the regional or Countywide average, as these scenarios consist entirely of residential and/or employment uses. As Scenario 2-HRC contains a hotel land use, other screening criteria were considered.

The *Citywide TDM Requirements* also depict a half-mile radius around the Walnut Creek and Pleasant Hill/Contra Costa Centre BART stations. The Walnut Creek station radius covers the project site, which means that all three scenarios would be exempt (or screened out) assuming that the FAR would be at least 0.75, no excess parking would be provided, the proposed project would comply with *Plan Bay Area 2050*, and would not result in a reduction to multi-family housing. It is noted that the project site does not currently contain residential uses, so the last condition would be met. For the City of Walnut Creek, the relevant SCS document is the Plan Bay Area 2050. The proposed project would be consistent with Plan Bay Area 2050 because it is identified as a priority development area (PDA) in which transit-oriented and infill development is encouraged, and the proposed project would facilitate mixed use and high-density transit-oriented infill development in proximity to the Walnut Creek BART station. Based on available information, Scenario 2-HRC would meet the other conditions as well since the FAR would be at least 0.75 and anticipated parking would not exceed maximum City Code standards.

Finding – Scenario 1-CCC and Scenario 3-RRC, which consist entirely of employment or residential uses, would have a *less-than-significant* impact to VMT as the relevant Sites are located in TAZs with VMT 85 percent or less of the Bay Area regional average for employees or Countywide average for residents. Scenario 2-HRC would screen from impacts to VMT as the relevant Sites are within a half-mile of the Walnut Creek BART station, given that, based on the development parameters incorporated into the description of each development scenario, a variety of conditions are met including having an FAR of at least 0.75, providing parking not exceeding City requirements, and complying with *Plan Bay Area 2050* strategies. With respect to Scenario 2-HRC, based on available information provided for purposes of this analysis, it would meet these conditions and thus would have a *less-than-significant* impact to VMT.

Traffic Safety

This chapter details the potential for the proposed project to adversely and significantly impact safety in terms of the adequacy of sight distance and need for turn lanes at the project access(es), the adequacy of stacking space in dedicated turn lanes at the study intersections to accommodate additional queuing due to adding project-generated trips and need for additional right-of-way controls. This is based on the third of four CEQA Transportation/Traffic checklist items:

- Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

City Traffic Safety Standards

The City's *Transportation Impact Analysis Guidelines* specifies the following regarding queuing:

Recommendations should be provided for 95th-percentile queues under existing or future conditions that exceed the available queue storage capacity at locations where the resulting spillover into through traffic lanes or upstream intersections would cause a substantial hazard. Queue lengths exceeding available storage lengths in the Downtown area are not typically considered significant impacts because the prevailing low speeds of traffic would not result in a substantial hazard related to queue spillover conditions.

Consistent with the above guidelines and in the absence of adopted specific thresholds, the following criteria was developed in consultation with City staff and applied to this analysis to evaluate potential queuing impacts. The proposed project's impact would be considered significant if it caused either of the following.

1. *Where the project causes the 95th percentile queue length to exceed the available storage, and the project added trips increase the queue length by 25 feet or more, the resulting spillover into through traffic lanes or upstream intersections would cause a substantial hazard.*
2. *Where the 95th percentile queue length exceeds the available storage without the project, if the project-added trips increase the queue length by 25 feet or more, the resulting spillover into through traffic lanes or upstream intersections would cause a substantial hazard. The collision history at such locations should also be reviewed to identify any existing trends that could be exacerbated by the addition of project-generated traffic.*

Together, the criteria prescribe that a significant impact would occur if a queue was contained within a turn lane without the project, the addition of traffic associated with the project would increase the back of queue to extend outside of the turn lane and into the adjacent through lane, and this increase in queue length would be 25 feet or more. Or, if the queue would already extend past the turn lane and into the through lane without the project, then a significant impact would occur if the increase in stacking distance was 25 feet or more. The collision history review would assist in pinpointing crash trends that may be exacerbated by project traffic, but would not bear on the determination of potential impacts with regard to the City's queuing thresholds of significance.

General Plan 2025 includes Policy 3.3 to "Promote maximum operational capacity and efficiency on arterials and collectors," which includes North Main Street and North Broadway adjacent to the project site.

Site Access

Under all three development scenarios Site A would be accessed via one driveway on North Main Street and another driveway on North Broadway. Sites B and C would each have a driveway on North Broadway.

Sight Distance

Sight distances along North Main Street and North Broadway at the project driveways were evaluated based on relevant sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distances for approaches on the major street to driveways and private street intersections are based on stopping sight distance with approach travel speed used as the basis for determining the recommended sight distance. Although sight distance requirements are not technically applicable to urban driveways, the stopping sight distance criterion for private street intersections was applied for evaluation purposes to ensure a conservative evaluation.

The posted speed limit on North Broadway is 25 mph, which translates to a recommended minimum stopping sight distance of 150 feet. Speeds on North Broadway were checked through an informal speed survey using a speed radar gun to estimate the critical speed of traffic during the midday when volumes are lower and speeds are not constrained. The “critical speed” is defined as the speed at or below which 85 percent of drivers are observed to be traveling. Based on this informal study, the critical speed of drivers on North Broadway was determined to be 25 mph, matching the speed limit and requiring 150 feet of sight distance. Based on a review of field conditions, sight lines extend more than 150 feet in both directions from each of the three proposed project driveways on North Broadway.

The posted speed limit on North Main Street is 30 mph, requiring a minimum of 200 feet of stopping sight distance. However, the critical speed was measured at 37 mph which requires between 250 and 300 feet of sight distance. Sight lines in excess of 300 feet were observed between the driveway and northbound traffic on North Main Street (oncoming from the left of a driver departing the driveway). Sight lines towards southbound traffic (to the right of a driver leaving the driveway) were not measured as the raised median prevents access to or from the southbound direction on North Main Street.

Finding – Adequate sight distance is available for all four proposed project driveways to serve the proposed project under all three development scenarios.

Access Analysis

The need for a right-turn lane or taper on North Main Street into the project driveway at Site A was evaluated based on relevant criteria contained in the *Intersection Channelization Design Guide*, National Cooperative Highway Research Program (NCHRP) Report No. 279, Transportation Research Board, 1985. A right-turn lane would consist of a lane installed to the right of the travel lane and would be a minimum of ten feet wide, plus a shoulder where not adjacent to a curb. A right-turn taper is a shoulder area that gets progressively wider as the motorist approaches the driveway. Both improvements are meant to provide an area for motorists turning right to move out of the traffic lane without impeding through traffic. The warrants were evaluated using Near-Term volumes with each development scenario.

A right-turn lane would be warranted for all three scenarios under Near-Term p.m. peak hour traffic volumes. Under a.m. peak hour traffic volumes, a right-turn lane would be warranted with Scenario 1-CCC and Scenario 2-HRC traffic, whereas a right-turn taper would be warranted with Scenario 3-RRC volumes. However, as a right-turn lane would be warranted for Scenario 3-RRC under p.m. peak hour traffic volumes, the need for a right-turn lane governs. The turn lane warrant calculations are in Appendix B.

The need for a left-turn lane into the project driveway at Site A from North Main Street was not assessed as there is a raised median preventing access. Instead, drivers heading southbound on North Main Street towards Site A would need to proceed to the signal at North Main Street/Pringle Avenue and complete a U-turn movement. The need for turn lanes on North Broadway were not considered due to the slower speeds and lower traffic volumes compared to North Main Street, the frequency of driveways, and local (versus through) nature of trips made along the portion of North Broadway in the vicinity of the relevant Sites as observed in the field.

Finding – For all three development scenarios, a right-turn lane into Site A from North Main Street would be warranted. Given the high volumes and speeds on North Main Street, the inbound traffic volume into Site A presents a potential hazard and therefore a *potentially significant impact*. Installation of a right-turn lane into Site A would provide a space for drivers to decelerate and turn into Site A, resulting in a *less-than-significant impact with mitigation*.

Recommendation – Under any of the three development scenarios, it is recommended that a right-turn lane be constructed on North Main Street into Site A. However, to the extent a specific individual development proposal would involve a lower overall amount of development and/or a different allocation of uses as compared to the three development scenarios evaluated herein, then it is recommend that the relevant applicant have the ability to demonstrate, by submitting a sensitivity analysis prepared by a qualified transportation engineer to the City's traffic engineer for review and reasonable approval, that a right-turn lane on North Main Street into Site A is no longer warranted.

Queuing

Under each scenario, the projected maximum queues in turn pockets at the study intersections were determined using the SIMTRAFFIC application of the Synchro analysis software and averaging the maximum projected queue for each of ten runs. Summarized in Table 14 are the predicted queue lengths for the various turn pockets in the study area under Near-Term conditions without project traffic and with anticipated volumes generated by each development scenario. Copies of the SIMTRAFFIC projections are contained in Appendix C.

Table 14 – Near-Term Maximum Left-Turn Queues Exceeding Available Storage

Study Intersection Movement	Available Storage	Maximum Queues							
		AM Peak Hour				PM Peak Hour			
		NP	1-CCC	2-HRC	3-RRC	NP	1-CCC	2-HRC	3-RRC
1. N Main St/San Luis Rd									
Eastbound Left-Turn	100	88	88	86	94	85	86	80	85
Eastbound Right-Turn	95	122	121	122	125	56	52	53	58
Westbound Left-Turn	40	33	30	34	33	50	48	54	47
Westbound Right-Turn	40	22	26	25	24	51	48	51	50
Northbound Left-Turn	150	143	151	156	150	177	178	174	172
Northbound Right-Turn	125	13	16	21	14	40	50	42	50
Southbound Left-Turn	190	24	46	50	29	41	49	52	48
Southbound Right-Turn	140	208	209	210	205	75	68	75	76
2. N Main St/Penniman Wy									
Northbound U-Turn	150	74	78	82	79	77	76	81	80
3. Penniman Wy/Lawrence Wy-I-680 N									
Westbound Right-Turn	30	20	23	21	22	12	13	15	11
7. Parkside Dr/San Juan Ave									
Westbound Right-Turn	75	90	92	90	89	85	130	61	71
8. Parkside Dr/Riviera Ave									
Northbound Right-Turn	75	82	77	81	77	122	144	117	117

Table 14 – Near-Term Maximum Left-Turn Queues Exceeding Available Storage

Study Intersection Movement	Available Storage	Maximum Queues							
		AM Peak Hour				PM Peak Hour			
		NP	1-CCC	2-HRC	3-RRC	NP	1-CCC	2-HRC	3-RRC
9. North Main St/Parkside Dr									
<i>Eastbound Through-Right</i>	170	202	204	201	198	212	214	216	214
<i>Westbound Left-Turn</i>	200	92	89	104	83	53	53	81	75
<i>Northbound Left-Turn</i>	260	69	92	114	97	355	382	365	372
<i>Southbound Left-Turn</i>	200	275	270	272	272	245	252	261	268
10. Parkside Dr/Lawrence Wy									
<i>Eastbound Left-Turn</i>	125	75	77	83	78	84	79	86	80
11. N Broadway/Parkside Dr									
<i>Westbound Left-Turn</i>	165	101	103	100	101	108	96	99	97
<i>Northbound Right-Turn</i>	100	109	97	99	108	167	169	169	164
12. N Civic Dr/Parkside Dr									
<i>Eastbound Left-Turn</i>	210	71	70	79	74	173	157	163	178
<i>Northbound Right-Turn</i>	170	212	210	208	207	219	206	214	206
13. N Main St/N California Blvd- Lawrence Wy									
<i>Northeastbound Through/Right</i>	300	82	83	80	78	264	298	347	350
15. N Civic Dr/Pine St									
<i>Eastbound Right-Turn</i>	70	55	56	63	57	80	96	82	80
<i>Northbound Left-Turn</i>	170	158	144	154	150	112	97	99	96
16. N California Blvd/Pringle Ave									
<i>Westbound Right-Turn</i>	70	45	38	39	33	68	68	58	60
<i>Northbound Left-Turn</i>	170	140	153	145	146	194	206	213	216
<i>Southbound Left-Turn</i>	200	121	136	125	128	153	103	109	134
17. N Main St/Pringle Ave									
<i>Eastbound Right-Turn</i>	50	84	83	84	79	93	90	92	96
<i>Northbound Left-Turn</i>	40	72	72	73	71	77	74	76	79
<i>Southbound Left-Turn</i>	35	43	71	58	53	69	72	71	71
18. N Main St/Central Rd									
<i>Southbound Left-Turn</i>	50	66	69	68	65	67	61	56	63

Notes: Maximum Queue based on the average of the maximum value from ten SIMTRAFFIC runs; all distances are measured in feet; NP = No Project; 1-CCC = Scenario 1-CCC; 2-HRC = Scenario 2-HRC; 3-RRC = Scenario 3-RRC; *Italicized text* = queue length exceeds available storage; **Bold text** = queue deficiency resulting from the addition of project traffic; Per City standard, a project impact would not occur where an already-deficient queue would increase fewer than 25 feet with the addition of project traffic

The queue lengths anticipated under Cumulative conditions without the proposed project (under all three scenarios) and with the addition of traffic volumes generated by each development scenario are summarized in Table 15.

Table 15 – Cumulative Maximum Left-Turn Queues Exceeding Available Storage

Study Intersection Movement	Available Storage	Maximum Queues							
		AM Peak Hour				PM Peak Hour			
		NP	1-CCC	2-HRC	3-RRC	NP	1-CCC	2-HRC	3-RRC
1. N Main St/San Luis Rd									
Eastbound Left-Turn	100	103	99	95	99	109	108	108	104
Eastbound Right-Turn	95	115	119	119	123	137	139	141	140
Westbound Left-Turn	40	29	35	34	29	65	72	73	69
Westbound Right-Turn	40	21	27	28	24	53	56	53	52
Northbound Left-Turn	150	147	146	158	155	194	198	202	199
Northbound Right-Turn	125	15	15	21	18	58	39	65	58
Southbound Left-Turn	190	45	44	45	50	214	222	210	225
Southbound Right-Turn	140	207	206	206	210	221	222	224	222
2. N Main St/Penniman Wy									
Northbound U-Turn	150	68	74	74	78	93	86	100	100
3. Penniman Wy/Lawrence Wy- I-680 N									
Westbound Right-Turn	30	21	20	21	20	13	11	12	16
7. Parkside Dr/San Juan Ave									
Westbound Right-Turn	75	111	104	130	130	49	53	54	54
8. Parkside Dr/Riviera Ave									
Northbound Right-Turn	75	95	94	100	94	105	104	114	107
9. North Main St/Parkside Dr									
Eastbound Through-Right	170	214	215	210	208	234	226	227	237
Westbound Left-Turn	200	134	128	140	152	43	45	44	42
Northbound Left-Turn	260	97	131	224	212	343	351	346	352
Southbound Left-Turn	200	262	268	266	269	252	243	267	250
10. Parkside Dr/Lawrence Wy									
Eastbound Left-Turn	125	106	107	114	109	80	87	90	85
11. N Broadway/Parkside Dr									
Westbound Left-Turn	165	106	104	102	97	120	119	117	116
Northbound Right-Turn	100	134	134	136	135	172	170	165	164
12. N Civic Dr/Parkside Dr									
Eastbound Left-Turn	210	79	76	81	79	200	190	189	205
Northbound Right-Turn	170	222	216	218	217	228	214	216	219

Table 15 – Cumulative Maximum Left-Turn Queues Exceeding Available Storage

Study Intersection Movement	Available Storage	Maximum Queues							
		AM Peak Hour				PM Peak Hour			
		NP	1-CCC	2-HRC	3-RRC	NP	1-CCC	2-HRC	3-RRC
13. N Main St/N California Blvd- Lawrence Wy <i>Northeastbound Through/Right</i>	300	139	138	143	137	302	312	324	333
15. N Civic Dr/Pine St <i>Eastbound Right-Turn</i>	70	59	60	65	65	92	113	98	94
<i>Northbound Left-Turn</i>	170	161	151	159	164	217	225	209	210
16. N California Blvd/Pringle Ave <i>Westbound Right-Turn</i>	70	48	45	52	48	70	64	73	64
<i>Northbound Left-Turn</i>	170	138	145	137	155	223	219	217	220
<i>Southbound Left-Turn</i>	200	113	113	133	113	151	128	149	138
17. N Main St/Pringle Ave <i>Eastbound Right-Turn</i>	50	80	83	79	79	94	93	94	96
<i>Northbound Left-Turn</i>	40	74	77	75	75	77	75	76	76
<i>Southbound Left-Turn</i>	35	50	71	61	55	67	73	78	73
18. N Main St/Central Rd <i>Southbound Left-Turn</i>	50	75	79	76	72	67	67	66	57

Notes: Maximum Queue based on the average of the maximum value from ten SIMTRAFFIC runs; all distances are measured in feet; NP = No Project; 1-CCC = Scenario 1-CCC; 2-HRC = Scenario 2-HRC; 3-RRC = Scenario 3-RRC; *Italicized text* = queue length exceeds available storage; **Bold text** = queue deficiency resulting from the addition of project traffic; Per City standard, a project impact would not occur where an already-deficient queue would increase fewer than 25 feet with the addition of project traffic

It is noted that for several locations and time periods, the addition of project traffic is shown to result in a decrease to maximum queue length. In reviewing the microsimulation software, it was determined that this result can occur when intersections are near or at capacity as a result of the interactions between different traffic patterns. For example, additional through traffic may block drivers wishing to enter a dedicated turn lane. This would result in a decrease to the estimated turn lane queue length as these drivers wait in the through lane. Likewise, increased congestion at an upstream intersection may meter how many vehicles reach a downstream intersection, reducing calculated queue lengths.

There were several instances where the addition of project traffic would increase queue lengths from within available storage to slightly greater than capacity, but the total increase would be less than 25 feet. For example, at North Main Street/San Luis Road, the addition of project traffic to Near-Term volumes during the morning peak hour would increase the 143-foot queue in the 150-foot northbound left-turn lane to 151 feet under Scenario 1-CCC, 156 feet under Scenario 2-HRC, and 150 feet under Scenario 3-RRC. Per the thresholds utilized in this analysis, as these increases are less than 25 feet there would be a *less-than-significant impact* at this location.

The queue for the 75-foot westbound right-turn lane at Parkside Drive/San Juan Avenue would increase from 85 feet under Near-Term volumes during the p.m. peak hour to 130 feet with Scenario 1-CCC traffic added, or an increase of more than 25 feet to an already deficient condition. This would therefore constitute a *potentially significant impact*. One way to mitigate this impact would be to extend the turn lane by at least 45 feet, to 130 feet. This could be accomplished by removing street parking along westbound Parkside Drive and extending the

existing right-turn lane line; this would result in a *less-than-significant impact with mitigation*. The crash history of this location was reviewed to determine if there was a collision trend that would be exacerbated by the addition of project traffic, and it was found that there were no westbound collisions reported during the five-year study period.

The addition of Scenario 1-CCC traffic would also have a *potentially significant impact* on the 260-foot northbound left-turn queue at North Main Street/Parkside Drive, which would extend to 355 feet under Near-Term conditions during the p.m. peak hour and 382 feet with project-generated traffic added. Extending the turn lane by 125 feet to at least 385 feet of capacity would reduce the impact of the project to a *less-than-significant impact with mitigation* and could be accomplished by modifying the existing raised median. While the collision history of North Main Street/Parkside Drive is above the statewide average for similar facilities, there were only three collisions between northbound vehicles, all of which were within 25 feet of the northbound stop bar and therefore not likely the result of queuing in the left-turn lane spilling into the through lane.

The northeastbound shared through/right-turn lane at North Main Street/North California Boulevard-Lawrence Way is 300 feet long and would have a stacking distance of 264 feet during the p.m. peak hour under Near-Term volumes. This would be increased to 347 feet with Scenario 2-HRC traffic added, and 350 feet with Scenario 3-RRC traffic added, which is a *potentially significant impact* for each scenario. Additionally, under Cumulative Conditions without the project the queue would extend to 302 feet, which the addition of traffic associated with Scenario 3-RRC would extend to 333 feet, a *potentially significant impact*. Eliminating the two on-street parking spaces between this added lane and the existing nearby Residence Inn turnout would increase the lane distance to greater than 350 feet and reduce the impact of these scenarios to *less-than-significant impact with mitigation*. There were no collisions reported in the vicinity of the end of this added lane during the study period.

At North Main Street/Pringle Avenue, the southbound left-turn lane is 35 feet long and would have queues of 43 feet during the a.m. peak hour under Near-Term traffic. This would increase to 71 feet (an increase of more than 25 feet) with Scenario 1-CCC traffic added. Extending the turn lane to 75 feet would enable turning vehicles to be contained in the turn pocket and result in a *less-than-significant impact with mitigation*. While North Main Street/Pringle Avenue had a below-average collision rate during the study period, two of the five collisions reported at or near this location occurred between southbound vehicles just north of the intersection. As this turn lane would provide access to the project site for southbound drivers on North Main Street and carry 91 project vehicles during the a.m. peak hour, providing sufficient capacity at this location would be important for adequate project access under Scenario 1-CCC.

Finding – The addition of Scenario 1-CCC traffic would create a *potentially significant impact* on queues in the westbound right-turn lane at Parkside Drive/San Juan Avenue and northbound left-turn lane at North Main Street/Parkside Drive under Near-Term conditions during the p.m. peak hour, as well as the southbound left-turn lane at North Main Street/Pringle Avenue during the morning peak hour under Near-Term conditions. Traffic associated with Scenario 2-HRC and Scenario 3-RRC would *potentially significantly impact* queues in the northeastbound shared through/right-turn lane at North Main Street/North California Boulevard-Lawrence Way during the p.m. peak hour under Near-Term conditions, as well as under Cumulative conditions with Scenario 3-RRC traffic added. Extending these turn lanes would reduce the impacts to *less-than-significant with mitigation*.

Recommendation – If Scenario 1-CCC is pursued, the following turn lane extensions should be implemented:

7. Parkside Drive/San Juan Avenue – Increase the westbound right-turn lane from 85 to 130 feet;
8. North Main Street/Parkside Drive – Increase the northbound left-turn lane from 260 to 385 feet; and
17. North Main Street/Pringle Avenue – Increase the southbound left-turn lane from 35 feet to 75 feet.

If either Scenario 2-HRC or Scenario 3-RRC is pursued, the northeastbound through/right-turn lane approaching North Main Street/North California Boulevard-Lawrence Way should be extended from 300 feet to 350 feet.

Provided, however, to the extent a specific individual development proposal would involve a lower overall amount of development and/or a different allocation of uses as compared to the three development scenarios evaluated herein, then it is recommended that the relevant applicant have the ability to demonstrate, by submitting a sensitivity analysis prepared by a qualified transportation engineer to the City's traffic engineer for review and reasonable approval, that the relevant above-referenced improvement(s) are no longer warranted based on the nature of the subject specific individual development proposal.

Traffic Signals

Signal Warrants

A signal warrant analysis was performed to determine the potential need for a traffic signal at each unsignalized study intersection to accommodate the addition of project-generated traffic. This includes the following intersections:

5. Parkside Drive/Hillside Avenue
6. Parkside Drive/Buena Vista Avenue
7. Parkside Drive/San Juan Avenue
8. Parkside Drive/Riviera Avenue
14. North Broadway/Pine Street
18. North Main Street/Central Road
19. North Broadway/Central Road

The unsignalized intersection of Hillside Avenue/SR-24 W On-Ramp was excluded from signal warrant analysis as the minor street is outbound only. Without minor street approaching traffic, by inspection none of the volume warrants would be satisfied.

Chapter 4C of the *California Manual on Uniform Traffic Control Devices* (CA-MUTCD) provides guidance on when a traffic signal should be considered. There are nine different warrants, or criteria, presented, as follows:

- Warrant 1, Eight-Hour Vehicular Volume
- Warrant 2, Four-Hour Vehicular Volume
- Warrant 3, Peak Hour Volume
- Warrant 4, Pedestrian Volume
- Warrant 5, School Crossing
- Warrant 6, Coordinated Signal System
- Warrant 7, Crash Experience
- Warrant 8, Roadway Network
- Warrant 9, Intersection Near a Grade Crossing

Based on the data available, only Warrant 3 was evaluated.

Warrant 3 is often the first warrant to be met. Under the Peak Hour Warrant, the need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

- A. If all three of the following conditions exist for the same one hour (any four consecutive 15-minute periods) of an average day:
 1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: four vehicle-hours for a one-lane approach; or five vehicle-hours for a two-lane approach, and

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
 3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.
- B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

To determine if a signal would be warranted as a result of the addition of project traffic or as a result of volumes without project traffic, warrant calculations were processed for the seven uncontrolled study intersections under Near-Term conditions without project traffic added. It was determined that a traffic signal would be warranted under Near-Term conditions without project traffic during one or both peak hours for Parkside Drive/Hillside Avenue, Parkside Drive/Buena Vista Avenue, Parkside Drive/San Juan Avenue, Parkside Drive/Riviera Avenue, and North Main Street/Central Road.

A signal would not be warranted at North Broadway/Pine Street under Near-Term conditions without the project. With the addition of traffic associated with Scenario 1-CCC to Near-Term volumes, a signal would be warranted for the p.m. peak hour. Adding traffic from Scenario 2-HRC and Scenario 3-RRC to Near-Term volumes would not result in a signal being warranted for North Broadway/Pine Street. Under Cumulative volumes, a signal would be warranted without the proposed project (under all scenarios) for the p.m. peak hour.

A signal would not be warranted at North Broadway/Central Road for either peak hour under Near-Term or Cumulative conditions, without the project or with the addition of traffic associated with each of the three development scenarios. These results are summarized in Table 16, and copies of the signal warrant worksheets are included in Appendix D.

Table 16 – Signal Warrant Summary

Study Intersection	Near-Term								Cumulative							
	AM Peak				PM Peak				AM Peak				PM Peak			
	NP	1-CCC	2-HRC	3-RRC	NP	1-CCC	2-HRC	3-RRC	NP	1-CCC	2-HRC	3-RRC	NP	1-CCC	2-HRC	3-RRC
5. Parkside Dr/Hillside Ave	NW	NW	NW	NW	W	W	W	W	W	W	W	W	W	W	W	W
6. Parkside Dr/Buena Vista Ave	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
7. Parkside Dr/San Juan Ave	W	W	W	W	NW	NW	NW	NW	W	W	W	W	NW	NW	NW	NW
8. Parkside Dr/Riviera Ave	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
14. N Broadway/Pine St	NW	NW	NW	NW	NW	W	NW	NW	NW	NW	NW	NW	W	W	W	W
18. N Main St/Central Rd	NW	NW	NW	NW	W	W	W	W	NW	NW	NW	NW	W	W	W	W
19. N Broadway/Central Rd	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

Notes: NP = No Project; 1-CCC = Scenario 1-CCC; 2-HRC = Scenario 2-HRC; 3-RRC = Scenario 3-RRC; W = Warranted; NW = Not Warranted; **Bold** text = Signal would not be warranted without the addition of project traffic, and warranted with project traffic included

Proportional Share

With the exception of Scenario 1-CCC for North Broadway/Pine Street, the addition of project traffic under each of the assessed scenarios to Near-Term or Cumulative conditions would not result in a signal being warranted that was not already warranted without the addition of project traffic. However, the addition of project traffic would further strain the uncontrolled intersections including outside the peak hours. For example, if a signal would be warranted for a few hours of the day under Near-Term conditions, the addition of project traffic may increase this by a few additional hours. Therefore, because the proposed project (under all scenarios) would exacerbate already-deficient conditions in a number of instances, the relevant project applicant(s) should be required to contribute a proportional share for the construction of a signal or other capacity enhancements for each intersection where a signal would already be warranted without the addition of project traffic. It is noted that this excludes North Broadway/Pine Street for Scenario 1-CCC, where traffic from this scenario under Near-Term conditions results in a signal being warranted and therefore the full cost of signalization should be incorporated into the proposed project. Likewise, the intersection of North Broadway/Central Road is excluded as a signal would not be warranted under any scenario assessed, and therefore no cost for signalization is anticipated.

The proportional shares estimated for each scenario and intersection were calculated using the methodology detailed in the *Guide for the Preparation of Traffic Impact Studies*, Caltrans, 2002. This methodology divides the project trips added during the a.m. and p.m. peak hours by the difference between Cumulative plus Project and Existing (no project) volumes. In other words, the proportion of future traffic volume growth attributable to the proposed project is used as its share. The results of these calculations are summarized in Table 17, including 100 percent for North Broadway/Pine Street under Scenario 1-CCC as discussed above. Appendix E contains worksheets for these proportional shares.

Table 17 – Proportional Share Summary			
Study Intersection	Development Scenario		
	1-CCC	2-HRC	3-RRC
5. Parkside Dr/Hillside Ave	21.7	13.9	11.2
6. Parkside Dr/Buena Vista Ave	11.3	8.1	6.4
7. Parkside Dr/San Juan Ave	23.4	19.1	15.5
8. Parkside Dr/Riviera Ave	15.7	13.9	11.0
14. N Broadway/Pine St	100.0	38.0	36.5
18. N Main St/Central Rd	21.1	14.6	9.8

Note: Values in percent

Finding – Under Near-Term volumes, signals are warranted per the CA-MUTCD Peak Hour Warrant at Parkside Drive/Hillside Avenue, Parkside Drive/Buena Vista Avenue, Parkside Drive/San Juan Avenue, Parkside Drive/Riviera Avenue, and North Main Street/Central Road. The addition of project traffic would have a *potentially significant impact* on these intersections. A signal would not be warranted at North Broadway/Pine Street under Near-Term conditions but would be warranted with the addition of Scenario 1-CCC traffic, resulting in a *potentially significant impact* to this intersection. A signal would not be warranted at North Broadway/Central Road under any scenario assessed; therefore, the proposed project (under all scenarios) would have a *less-than-significant impact* with regard to the need to signalize this intersection.

Recommendation – To reduce the impact to a *less-than-significant level with mitigation*, the relevant project applicant(s) should contribute a proportional share, based on the nature of the subject specific individual development proposal and per Table 17, towards the construction of signals at the following intersections:

5. Parkside Drive/Hillside Avenue

6. Parkside Drive/Buena Vista Avenue
7. Parkside Drive/San Juan Avenue
8. Parkside Drive/Riviera Avenue
14. North Broadway/Pine Street
18. North Main Street/Central Road

However, to the extent a specific individual development proposal would involve a lower overall amount of development and/or a different allocation of uses as compared to the three development scenarios evaluated herein, then it is recommended that the relevant applicant have the ability to demonstrate, by submitting a sensitivity analysis prepared by a qualified transportation engineer to the City's traffic engineer for review and reasonable approval, that a proportional share of the relevant intersection(s) is not warranted based on the nature of the subject individual development proposal.

Emergency Access

This Chapter addresses the fourth CEQA Transportation/Traffic checklist item:

- Would the project result in inadequate emergency access?

City Emergency Access Standard

The City of Walnut Creek *Municipal Code Section 9-19.01 Adoption* adopts the *2019 California Fire Code* as the standard for the City, adopts the amendments prescribed by the Contra Costa County Fire Protection District's *Ordinance No. 2019-37*, and adds a specification regarding turning radii. Between the *Municipal Code, Ordinance No. 2019-37*, and *California Fire Code*, a fire access road is required to be provided within 150 feet of all exterior building walls (unless an exemption is granted), which needs to have a minimum unobstructed width of 20 feet, a minimum inside turn radius of 25 feet, and a minimum outside turn radius of 45 feet. Any fire access road longer than 150 feet requires a turnaround. The requirement for a fire access road can be exempted or 150-foot distance increased through approval from the Fire Code official for a building that is equipped throughout with an automatic fire sprinkler system.

Adequacy of Site Access

The curb-to-curb distance between North Main Street and North Broadway spanning Site A is approximately 790 feet. As this is greater than 300 feet (a 150-foot reach from each street), a fire access road would be required to access all exterior building walls. Additionally, this access road would be longer than 150 feet which requires provision of a turnaround. However, as noted above, as an alternative, an exemption could be granted via a Fire Code official if an automatic sprinkler system is installed.

Similarly, Sites B and C are approximately 400 feet from North Broadway to the east edges of these Sites. Therefore, fire access roads with turnarounds would need to be provided or an exemption granted.

Finding – Sites A, B, and C are too large for fire engines to fully access each site from North Main Street or North Broadway, which presents a *potentially significant impact* of the proposed project. This could be reduced to a *less-than-significant impact with mitigation* through either inclusion of fire access roads with turnarounds as required by the *Municipal Code* or the granting of an exemption from a Fire Code official based on the installation of an automatic fire sprinkler system.

Recommendation – The proposed project should be designed with fire access roads meeting all applicable standards, providing access to within 150 feet of all building exteriors. Alternatively, no fire access roads would need to be provided so long an exemption is granted under applicable laws and regulations by a Fire Code official due to the installation of an automatic fire sprinkler system.

Off-Site Impacts

As detailed further in the Capacity Analysis section, the addition of project traffic to Near-Term or Cumulative volumes would result in negligible increases to control delay and/or continued acceptable operation of the signalized study intersections, except for North Main Street/North California Boulevard-Lawrence Way under Near-Term plus Scenario 1-CCC volumes, which could be alleviated through signal retiming. Further, City-maintained traffic signal systems are equipped with optical priority detectors which would enable emergency vehicle operators to call a green phase regardless of traffic volumes without or with the project.

The control delay at several uncontrolled intersections would increase appreciably with the addition of project traffic. If these intersections are signalized, pre-emption equipment would be provided to ensure a green signal indication for emergency vehicles. It is noted that emergency vehicle operators are able to use flashing lights and sirens, requiring drivers to pull aside, and may travel on the wrong side of the road as necessary to bypass queued traffic.

Finding – The addition of project traffic to existing or future volumes would minimally impact emergency response times in the study area. Therefore, the impact of the proposed project to emergency access would be *less-than-significant*.

Conclusions and Recommendations - CEQA

Conclusions

- Scenario 1-CCC is expected to generate an average of 7,802 trips per day including 759 a.m. peak hour trips and 820 p.m. peak hour trips. With deductions taken for non-auto modes and existing land uses, this would include 5,952 daily trips, with 635 morning peak hour trips, and 658 evening peak hour trips. For Scenario 2-HRC, the daily trips, morning peak hour trips, and evening peak hour trips generated are estimated to be 7,198, 588, and 613, respectively. With reductions applied, the trip generation would include net new 5,348 daily, 464 a.m. peak, and 451 p.m. peak vehicles. The Scenario 3-RRC trip generation includes 6,874 daily trips, 477 morning peak hour trips, and 590 evening peak hour trips, and after deductions, 5,024 net new daily trips, 353 a.m. peak hour trips, and 428 p.m. peak hour trips.
- Generally, the pedestrian, bicycle, and transit network in the vicinity of the project site would adequately serve the proposed project. Moreover, the proposed project incorporates a public trail on a portion of Site A as a project design feature in a manner consistent with NDSP policies that would facilitate use of alternative modes of travel.
- Commercial bicycle parking would need to be provided at a minimum of 171 spaces for Scenario 1-CCC, 111 spaces for Scenario 2-HRC, and 46 spaces for Scenario 3-RRC. At least one space must be short-term and one space must be long-term. The shower and clothing locker requirements for each scenario respectively include seven and 28 for Scenario 1-CCC, four and 16 for Scenario 2-HRC, and two and eight for Scenario 3-RRC. Residential bicycle parking is required for Scenario 2-HRC including seven short-term and 66 long-term spaces. For Scenario 3-RRC, the bicycle parking requirement includes 33 short-term and 329 long-term spaces.
- Scenario 1-CCC and Scenario 3-RRC would have a *less-than-significant impact* on VMT, as the relevant Sites are located in TAZs with VMTs 85 percent or less of the area average. For Scenario 2-HRC, a *less-than-significant impact* on VMT would be achieved given the assumed development parameters wherein the floor-area ratio would be at least 0.75, if parking would not exceed applicable City requirements, and the proposed project would comply with numerous relevant *Plan Bay Area 2050* strategies (given the proposed intensification of an infill site within an urbanized, priority development area close to public transit and major transportation corridors).
- There is adequate sight distance available at all four proposed project driveways. A right-turn lane into Site A from North Main Street would be warranted for all three development scenarios and should be constructed to avoid a *potentially significant impact* on safety on North Main Street.
- With the addition of Scenario 1-CCC traffic to Near-Term volumes, there would be a *potentially significant impact* on queuing at Parkside Drive/San Juan Avenue in the westbound right-turn lane during the p.m. peak hour, at North Main Street/Parkside Drive in the northbound left-turn lane during the p.m. peak hour, and at North Main Street/Pringle Avenue in the southbound left-turn lane during the a.m. peak hour. Scenario 2-HRC and Scenario 3-RRC would have a similar impact to queues in the northeast through/right-turn lane at North Main Street/North California Boulevard-Lawrence Way during the p.m. peak hour. These impacts could be reduced to *less-than-significant with mitigation* by extending the affected turn lanes.
- Traffic signal control is warranted at Parkside Drive/Hillside Avenue, Parkside Drive/Buena Vista Avenue, Parkside Drive/San Juan Avenue, Parkside Drive/Riviera Avenue, and North Main Street/Central Road without and with the project, at North Broadway/Pine Street under Near-Term plus Scenario 1-CCC volumes or cumulative volumes without or with the project, and not warranted at North Broadway/Central Road under any volumes assessed. This presents a *potentially significant impact* of the project, and a proportional share contribution is recommended to reduce the impact to a *less-than-significant level with mitigation*.

- The relevant Sites are too wide for fire engines to access entirely from North Main Street or North Broadway, presenting a *potentially significant impact*. This could be mitigated either through inclusion of fire access roads or being granted an exemption from a fire code official for installing an automatic sprinkler system. The addition of project traffic to the area roadway network would result in a *less-than-significant* impact to emergency response times.

Recommendations

- Adequate bicycle parking, showers, and clothing lockers in accordance with applicable requirements should be provided depending on the scenario selected, as detailed in Table 12.
- A right-turn lane into Site A is recommended to be constructed on North Main Street.
- If Scenario 1-CCC is pursued, the westbound right-turn lane at Parkside Drive/San Juan Avenue should be extended from 85 to 130 feet, the northbound left-turn lane at North Main Street/Parkside Drive should be increased from 260 feet to 385 feet, and the southbound left-turn lane at North Main Street/Pringle Avenue should be expanded to 75 feet, from the existing 35 feet. If Scenario 2-HRC or Scenario 3-RRC is pursued, the northeastbound shared through/right-turn lane approaching North Main Street/North California Boulevard-Lawrence Way should be extended from 300 feet to 350 feet.
- The relevant project applicant(s) should contribute a proportional share towards constructing traffic signal control at Parkside Drive/Hillside Avenue, Parkside Drive/Buena Vista Avenue, Parkside Drive/San Juan Avenue, Parkside Drive/Riviera Avenue, North Broadway/Pine Street, and North Main Street/Central Road per Table 17 and based on the ultimate development parameters of the subject specific individual development proposal(s).
- It is recommended that the proposed project either be designed with fire access roads that provide sufficient access to all building exteriors, or an exemption pursuant to applicable laws and regulations should be secured from a Fire Code official.

Study Participants and References

Study Participants

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Appendix A

Collision Rate Calculations



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Intersection Collision Rate Worksheet

North Downtown Specific Plan Supplemental EIR

Intersection # 1: North Main Street & San Luis Road

Date of Count: 2014

Number of Collisions: 10

Number of Injuries: 5

Number of Fatalities: 0

Average Daily Traffic (ADT): 31800

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Four-Legged

Control Type: Signals

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{10}{31,800} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.17 c/mve	0.0%	50.0%
Statewide Average*	0.24 c/mve	0.5%	46.9%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection # 2: North Main Street & Penniman Way

Date of Count: 2014

Number of Collisions: 10

Number of Injuries: 5

Number of Fatalities: 0

Average Daily Traffic (ADT): 38700

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Tee

Control Type: Signals

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{10}{38,700} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.14 c/mve	0.0%	50.0%
Statewide Average*	0.20 c/mve	0.5%	46.8%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

North Downtown Specific Plan Supplemental EIR

Intersection # 3: Penniman Way & Lawrence Way/NB I-680 Ramp

Date of Count: 2014

Number of Collisions: 6

Number of Injuries: 0

Number of Fatalities: 0

Average Daily Traffic (ADT): 20500

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Four-Legged

Control Type: Signals

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{6}{20,500} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.16 c/mve	0.0%	0.0%
Statewide Average*	0.24 c/mve	0.5%	46.9%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection # 4: Parkside Drive & WB SR-24 On-Ramp

Date of Count: 2016

Number of Collisions: 0

Number of Injuries: 0

Number of Fatalities: 0

Average Daily Traffic (ADT): 17700

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Tee

Control Type: No Controls

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{0}{17,700} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.00 c/mve	0.0%	0.0%
Statewide Average*	0.06 c/mve	1.9%	41.7%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

North Downtown Specific Plan Supplemental EIR

Intersection # 5: Parkside Drive & Hillside Ave

Date of Count: 2016

Number of Collisions: 1

Number of Injuries: 0

Number of Fatalities: 0

Average Daily Traffic (ADT): 9900

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Four-Legged

Control Type: 4 Way Stop

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{1}{9,900} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.06 c/mve	0.0%	0.0%
Statewide Average*	0.17 c/mve	0.4%	26.8%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection # 6: Parkside Drive & Buena Vista Ave

Date of Count: 2016

Number of Collisions: 3

Number of Injuries: 1

Number of Fatalities: 0

Average Daily Traffic (ADT): 11000

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Four-Legged

Control Type: 4 Way Stop

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{3}{11,000} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.15 c/mve	0.0%	33.3%
Statewide Average*	0.17 c/mve	0.4%	26.8%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

North Downtown Specific Plan Supplemental EIR

Intersection # 7: Parkside Drive & San Juan Ave

Date of Count: 2016

Number of Collisions: 2

Number of Injuries: 1

Number of Fatalities: 0

Average Daily Traffic (ADT): 8200

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Tee

Control Type: 4 Way Stop

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{2}{8,200} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.13 c/mve	0.0%	50.0%
Statewide Average*	0.07 c/mve	1.1%	38.6%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection # 8: Parkside Drive & Riviera Ave

Date of Count: 2016

Number of Collisions: 3

Number of Injuries: 2

Number of Fatalities: 0

Average Daily Traffic (ADT): 12900

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Tee

Control Type: Stop & Yield Controls

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{3}{12,900} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.13 c/mve	0.0%	66.7%
Statewide Average*	0.09 c/mve	1.2%	46.9%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

North Downtown Specific Plan Supplemental EIR

Intersection # 9: North Main Street & Parkside Drive

Date of Count: 2014

Number of Collisions: 23

Number of Injuries: 11

Number of Fatalities: 0

Average Daily Traffic (ADT): 40800

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Four-Legged

Control Type: Signals

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{23}{40,800} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.31 c/mve	0.0%	47.8%
Statewide Average*	0.24 c/mve	0.5%	46.9%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection # 10: Parkside Drive & Lawrence Way

Date of Count: 2014

Number of Collisions: 12

Number of Injuries: 7

Number of Fatalities: 0

Average Daily Traffic (ADT): 18800

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Tee

Control Type: Signals

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{12}{18,800} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.35 c/mve	0.0%	58.3%
Statewide Average*	0.20 c/mve	0.5%	46.8%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

North Downtown Specific Plan Supplemental EIR

Intersection # 11: North Broadway & Parkside Drive

Date of Count: 2014

Number of Collisions: 6

Number of Injuries: 4

Number of Fatalities: 0

Average Daily Traffic (ADT): 16400

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Tee

Control Type: Signals

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{6}{16,400} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.20 c/mve	0.0%	66.7%
Statewide Average*	0.20 c/mve	0.5%	46.8%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection # 12: North Civic Drive & Parkside Drive

Date of Count: 2014

Number of Collisions: 6

Number of Injuries: 2

Number of Fatalities: 0

Average Daily Traffic (ADT): 23700

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Tee

Control Type: Signals

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{6}{23,700} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.14 c/mve	0.0%	33.3%
Statewide Average*	0.20 c/mve	0.5%	46.8%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

North Downtown Specific Plan Supplemental EIR

Intersection # 13: North Main Street & North California Blvd/Lawrence Way
Date of Count: 2014

Number of Collisions: 15
Number of Injuries: 5
Number of Fatalities: 0
Average Daily Traffic (ADT): 38500
Start Date: July 1, 2016
End Date: June 30, 2021
Number of Years: 5

Intersection Type: Multi-Legged
Control Type: Signals
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{15}{38,500} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.21 c/mve	0.0%	33.3%
Statewide Average*	0.24 c/mve	0.5%	46.9%

Notes

ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2018 Collision Data on California State Highways, Caltrans

Intersection # 14: North Broadway & Pine Street
Date of Count: 2016

Number of Collisions: 4
Number of Injuries: 2
Number of Fatalities: 0
Average Daily Traffic (ADT): 11900
Start Date: July 1, 2016
End Date: June 30, 2021
Number of Years: 5

Intersection Type: Four-Legged
Control Type: 4 Way Stop
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{4}{11,900} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.18 c/mve	0.0%	50.0%
Statewide Average*	0.17 c/mve	0.4%	26.8%

Notes

ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2018 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

North Downtown Specific Plan Supplemental EIR

Intersection # 15: North Civic Drive & Pine Street

Date of Count: 2014

Number of Collisions: 10

Number of Injuries: 8

Number of Fatalities: 0

Average Daily Traffic (ADT): 20000

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Tee

Control Type: Signals

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{10}{20,000} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.27 c/mve	0.0%	80.0%
Statewide Average*	0.20 c/mve	0.5%	46.8%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection # 16: North California Boulevard & Pringle Ave

Date of Count: 2014

Number of Collisions: 9

Number of Injuries: 4

Number of Fatalities: 0

Average Daily Traffic (ADT): 19800

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Four-Legged

Control Type: Signals

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{9}{19,800} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.25 c/mve	0.0%	44.4%
Statewide Average*	0.24 c/mve	0.5%	46.9%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

North Downtown Specific Plan Supplemental EIR

Intersection # 17: North Main Street & Pringle Ave

Date of Count: 2014

Number of Collisions: 5

Number of Injuries: 1

Number of Fatalities: 0

Average Daily Traffic (ADT): 24100

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Four-Legged

Control Type: Signals

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{5}{24,100} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.11 c/mve	0.0%	20.0%
Statewide Average*	0.24 c/mve	0.5%	46.9%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection # 18: North Main Street & Central Road

Date of Count: 2021 (Estimate)

Number of Collisions: 1

Number of Injuries: 0

Number of Fatalities: 0

Average Daily Traffic (ADT): 19500

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Tee

Control Type: Stop & Yield Controls

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{1}{19,500} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.03 c/mve	0.0%	0.0%
Statewide Average*	0.09 c/mve	1.2%	46.9%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

North Downtown Specific Plan Supplemental EIR

Intersection # 19: Broadway & Central Road

Date of Count: 2021 (Estimate)

Number of Collisions: 1

Number of Injuries: 0

Number of Fatalities: 0

Average Daily Traffic (ADT): 10000

Start Date: July 1, 2016

End Date: June 30, 2021

Number of Years: 5

Intersection Type: Tee

Control Type: Stop & Yield Controls

Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{1}{10,000} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	0.05 c/mve	0.0%	0.0%
Statewide Average*	0.09 c/mve	1.2%	46.9%

Notes

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

* 2018 Collision Data on California State Highways, Caltrans

Appendix B

Turn Lane Warrant Worksheets



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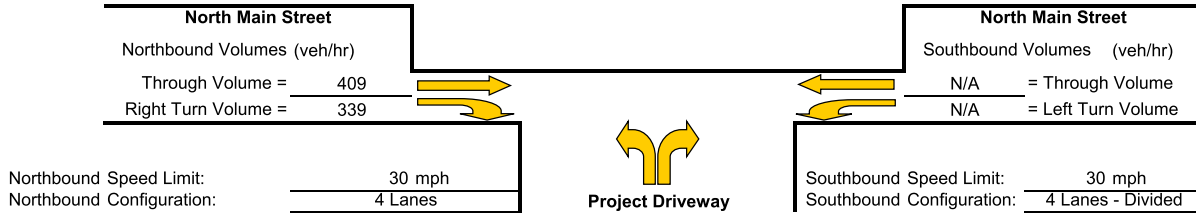
Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North Main Street and Project Driveway

Study Scenario: Near-Term plus Scenario 1-CCC AM

Direction of Analysis Street: North/South

Cross Street Intersects: From the East



Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

WARRANTED - Exceeds 90 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold AV = -

Advancing Volume Va = 748

If $AV < Va$ then warrant is met -

Right Turn Lane Warranted: YES

Northbound Right Turn Taper Warrants

(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

N/A

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold AV = -

Advancing Volume Va = -

If $AV < Va$ then warrant is met -

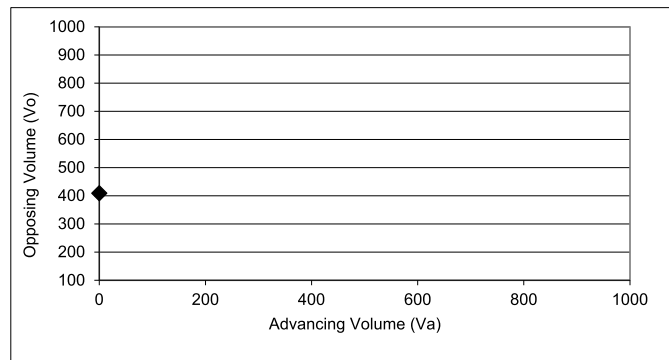
Right Turn Taper Warranted: -

Southbound Left Turn Lane Warrants

Left Turn Volume Threshold LtVol 45.9 veh/hr

Left Turn Volume Threshold VI N/A veh/hr

If $VI > LtVol$ then warrant is met



Left Turn Lane Warranted: YES

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.

The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.

The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

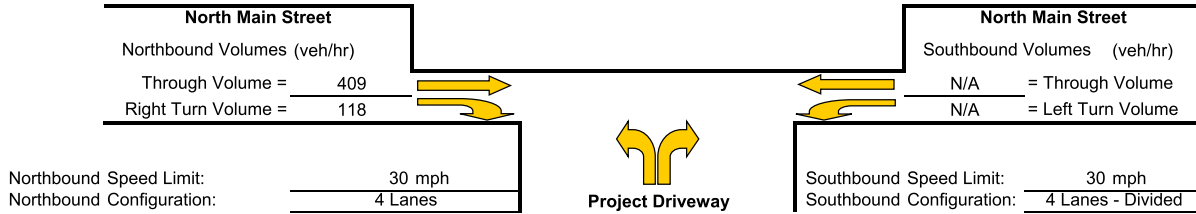
Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North Main Street and Project Driveway

Study Scenario: Near-Term plus Scenario 2-HRC AM

Direction of Analysis Street: North/South

Cross Street Intersects: From the East



Northbound Right Turn Lane Warrants

- Check for right turn volume criteria

WARRANTED - Exceeds 90 vehicles

- Check advance volume threshold criteria for turn lane

Advancing Volume Threshold AV = -

Advancing Volume Va = 527

If $AV < Va$ then warrant is met -

Right Turn Lane Warranted: YES

Northbound Right Turn Taper Warrants

(evaluate if right turn lane is unwarranted)

- Check taper volume criteria

N/A

- Check advance volume threshold criteria for taper

Advancing Volume Threshold AV = -

Advancing Volume Va = -

If $AV < Va$ then warrant is met -

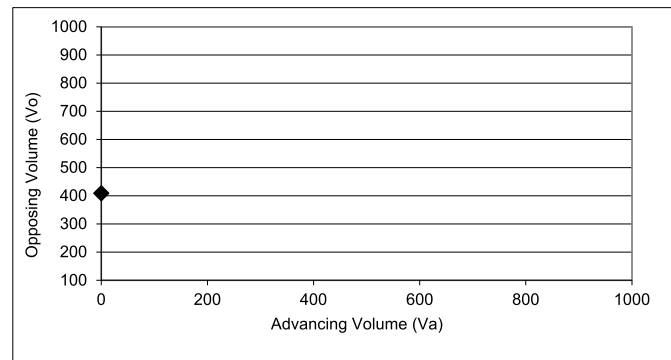
Right Turn Taper Warranted: -

Southbound Left Turn Lane Warrants

Left Turn Volume Threshold LtVol 45.9 veh/hr

Left Turn Volume Threshold VI N/A veh/hr

If $VI > LtVol$ then warrant is met



Left Turn Lane Warranted: YES

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.

The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.

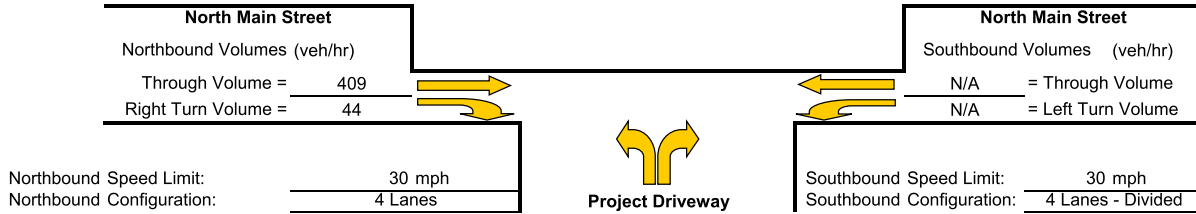
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North Main Street and Project Driveway
Study Scenario: Near-Term plus Scenario 3-RRC AM

Direction of Analysis Street: North/South

Cross Street Intersects: From the East



Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold AV = 1144

Advancing Volume Va = 453

If $AV < Va$ then warrant is met No

Right Turn Lane Warranted: NO

Northbound Right Turn Taper Warrants

(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold AV = -133.33333

Advancing Volume Va = 453

If $AV < Va$ then warrant is met Yes

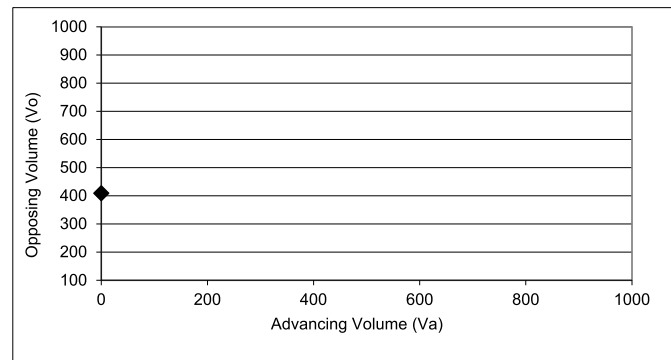
Right Turn Taper Warranted: YES

Southbound Left Turn Lane Warrants

Left Turn Volume Threshold LtVol 45.9 veh/hr

Left Turn Volume Threshold VI N/A veh/hr

If $VI > LtVol$ then warrant is met



Left Turn Lane Warranted: YES

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.

The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.

The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

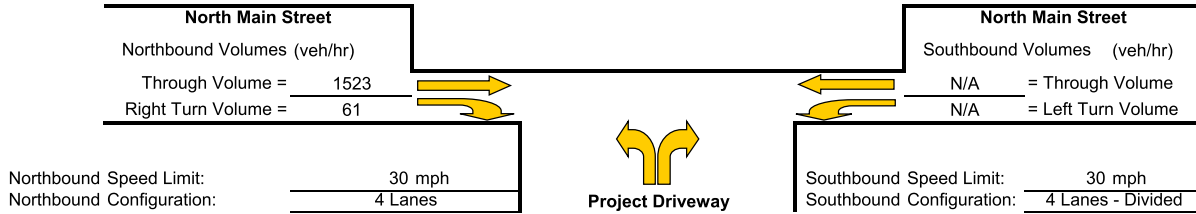
Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North Main Street and Project Driveway

Study Scenario: Near-Term plus Scenario 1-CCC PM

Direction of Analysis Street: North/South

Cross Street Intersects: From the East



Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold AV = 905.9

Advancing Volume Va = 1584

If $AV < Va$ then warrant is met Yes

Right Turn Lane Warranted: YES

Northbound Right Turn Taper Warrants

(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

N/A

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold AV = -

Advancing Volume Va = -

If $AV < Va$ then warrant is met -

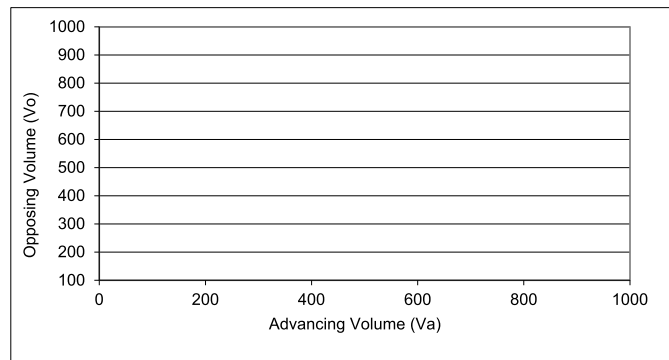
Right Turn Taper Warranted: -

Southbound Left Turn Lane Warrants

Left Turn Volume Threshold LtVol 7.1 veh/hr

Left Turn Volume Threshold VI N/A veh/hr

If $VI > LtVol$ then warrant is met



◆ Study Intersection

Left Turn Lane Warranted: YES

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.

The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.

The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

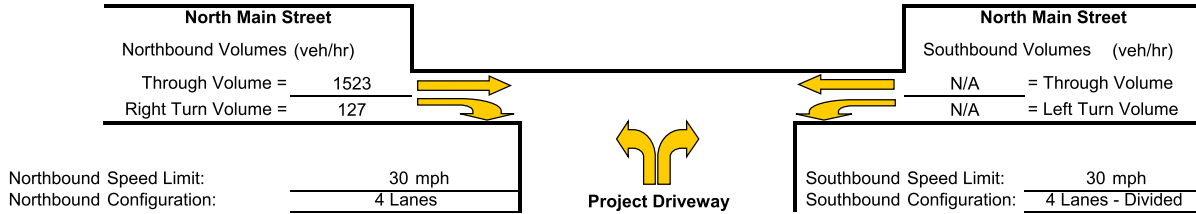
Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North Main Street and Project Driveway

Study Scenario: Near-Term plus Scenario 2-HRC PM

Direction of Analysis Street: North/South

Cross Street Intersects: From the East



Northbound Right Turn Lane Warrants

- Check for right turn volume criteria

WARRANTED - Exceeds 90 vehicles

- Check advance volume threshold criteria for turn lane

Advancing Volume Threshold AV = -

Advancing Volume Va = 1650

If $AV < Va$ then warrant is met -

Right Turn Lane Warranted: YES

Northbound Right Turn Taper Warrants

(evaluate if right turn lane is unwarranted)

- Check taper volume criteria

N/A

- Check advance volume threshold criteria for taper

Advancing Volume Threshold AV = -

Advancing Volume Va = -

If $AV < Va$ then warrant is met -

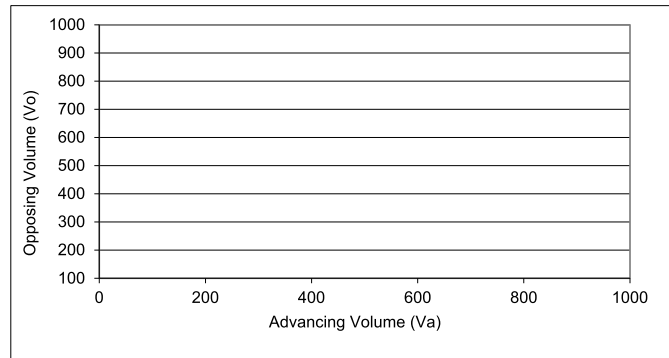
Right Turn Taper Warranted: -

Southbound Left Turn Lane Warrants

Left Turn Volume Threshold LtVol 7.1 veh/hr

Left Turn Volume Threshold VI N/A veh/hr

If $VI > LtVol$ then warrant is met



◆ Study Intersection

Left Turn Lane Warranted: YES

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.

The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.

The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

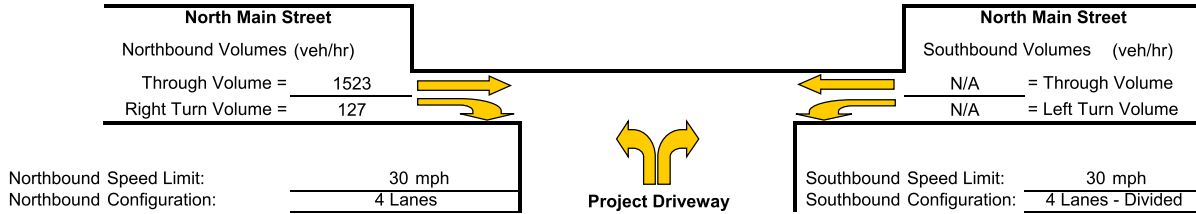
Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North Main Street and Project Driveway

Study Scenario: Near-Term plus Scenario 3-RRC PM

Direction of Analysis Street: North/South

Cross Street Intersects: From the East



Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

WARRANTED - Exceeds 90 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold AV = -

Advancing Volume Va = 1650

If $AV < Va$ then warrant is met -

Right Turn Lane Warranted: YES

Northbound Right Turn Taper Warrants

(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

N/A

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold AV = -

Advancing Volume Va = -

If $AV < Va$ then warrant is met -

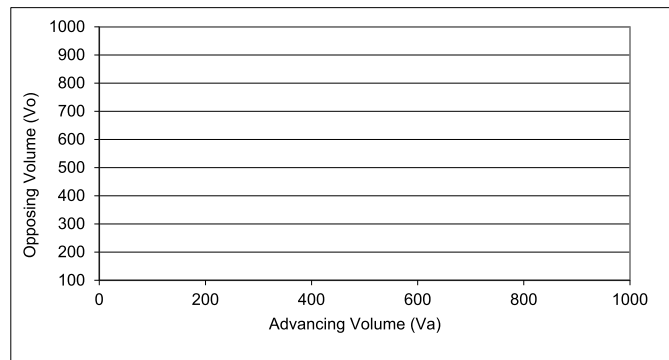
Right Turn Taper Warranted: -

Southbound Left Turn Lane Warrants

Left Turn Volume Threshold LtVol 7.1 veh/hr

Left Turn Volume Threshold VI N/A veh/hr

If $VI > LtVol$ then warrant is met



Left Turn Lane Warranted: YES

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.

The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.

The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Appendix C

Queuing Calculations





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12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L	T
Maximum Queue (ft)	110	165	118	44	41	37	157	104	103	25	30
Average Queue (ft)	47	15	69	9	8	5	81	24	41	3	6
95th Queue (ft)	91	83	116	34	31	25	141	73	85	15	23
Link Distance (ft)	281										
Upstream Blk Time (%)	208										
Queuing Penalty (veh)	412										
Storage Bay Dist (ft)	100	95		40	40		150	150		125	190
Storage Blk Time (%)	1	0	4	1	1	0	1	0	1	0	3
Queuing Penalty (veh)	2	0	3	0	0	0	0	3	0	0	0

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	527	165
Average Queue (ft)	178	108
95th Queue (ft)	387	198
Link Distance (ft)	744	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	140	
Storage Blk Time (%)	6	2
Queuing Penalty (veh)	37	10

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	TR
Maximum Queue (ft)	119	148	105	97	116	302	318	288
Average Queue (ft)	88	96	38	34	43	172	183	133
95th Queue (ft)	118	154	87	81	91	299	315	306
Link Distance (ft)	103	103	966	966	284	284	284	284
Upstream Blk Time (%)	8	12				1	1	0
Queuing Penalty (veh)	18	28				4	5	4
Storage Bay Dist (ft)	150							
Storage Blk Time (%)	0							
Queuing Penalty (veh)	0							

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	NB	TR
Directions Served	LT	T	R	L	T		
Maximum Queue (ft)	91	33	38	12	90	95	
Average Queue (ft)	33	6	4	1	18	26	
95th Queue (ft)	71	23	23	6	56	71	
Link Distance (ft)	150	259		548	548		
Upstream Blk Time (%)	0						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)			30				
Storage Blk Time (%)		1	1				
Queuing Penalty (veh)	0	0	0				

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB
Directions Served	T	R	L	T
Maximum Queue (ft)	7	35	500	
Average Queue (ft)	0	5	221	
95th Queue (ft)	5	21	466	
Link Distance (ft)	497	497	494	
Upstream Blk Time (%)	5			
Queuing Penalty (veh)	38			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	229	275	82	24
Average Queue (ft)	98	118	38	7
95th Queue (ft)	207	259	67	24
Link Distance (ft)	207	376	494	196
Upstream Blk Time (%)	6	0		
Queuing Penalty (veh)	0	3		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	118	200	31	239
Average Queue (ft)	55	84	9	124
95th Queue (ft)	91	153	32	230
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)				5
Queuing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
Directions Served	L T	R	T	LR
Maximum Queue (ft)	87	135	100	135
Average Queue (ft)	49	62	45	60
95th Queue (ft)	75	106	85	106
Link Distance (ft)	630	358		459
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			75	
Storage Blk Time (%)		3	0	
Queuing Penalty (veh)		4	0	

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	WB	T	L	NB	NB
Directions Served	TR						
Maximum Queue (ft)	35	239	28	95	79		
Average Queue (ft)	8	105	1	28	34		
95th Queue (ft)	27	194	28	76	62		
Link Distance (ft)	358	335	335	503			
Upstream Blk Time (%)		0					
Queueing Penalty (veh)		0					
Storage Bay Dist (ft)						76	
Storage Blk Time (%)				2	0		
Queueing Penalty (veh)				2	0		

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	TR	L	T	NB	NB	NB	SB
Directions Served	L	TR	L	WB	WB	WB	WB	WB	WB	TR	L	T	NB	NB	NB	L
Maximum Queue (ft)	128	266	199	143	168	191	222	96	135	143	201	225	143	201	225	143
Average Queue (ft)	54	108	127	34	85	105	131	31	50	51	103	166	51	103	166	51
95th Queue (ft)	110	211	196	96	152	183	210	74	105	115	180	270	115	180	270	115
Link Distance (ft)	335	335			175	175	175	175	175	736	736	736				
Upstream Blk Time (%)	0	0	0	0	2	4	4									
Queueing Penalty (veh)	0			0	1	5	11									
Storage Bay Dist (ft)		170	200							260			260		200	200
Storage Blk Time (%)	1	4	0	0	0										0	1
Queueing Penalty (veh)	4	6	0	0	0					175			175		2	4

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	T	SB	T	SB	TR
Directions Served						
Maximum Queue (ft)	585	628	553	609		
Average Queue (ft)	290	312	315	361		
95th Queue (ft)	500	520	508	564		
Link Distance (ft)	966	966	966	966		
Upstream Blk Time (%)		0				
Queueing Penalty (veh)			0			
Storage Bay Dist (ft)						
Storage Blk Time (%)	16					
Queueing Penalty / veh)	57					

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	T	T	WB	WB	WB	WB
Directions Served	L	L	T	T	T				TR
Maximum Queue (ft)	97	90	20	80	298	125			
Average Queue (ft)	27	42	1	25	64	83			
95th Queue (ft)	67	74	20	63	190	138			
Link Distance (ft)			177	383	383				
Upstream Blk Time (%)			0	0	0				
Queueing Penalty (veh)			0	1					
Storage Bay Dist	125	125				100			
Storage Blk Time (%)	0	0		0	5				
Queueing Penalty (veh)	0	0		3	12				

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	WB	WB	WB	NB	NB	NB
	T	TR	L	T	T	L	R	
Directions Served								
Maximum Queue (ft)	187	228	130	135	202	255	125	
Average Queue (ft)	60	92	55	27	85	136	40	
95th Queue (ft)	134	181	104	84	172	219	115	
Link Distance (ft)	383	383		242	242	471		
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)			165				100	
Storage Blk Time (%)			0	0			17	0
Queuing Penalty (veh)			0	0			7	0

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB
	L	LR	R	L	T	T	T	T	TR
Directions Served									
Maximum Queue (ft)	85	121	120	194	279	153	759	761	
Average Queue (ft)	27	63	59	140	72	31	725	727	
95th Queue (ft)	65	103	103	208	90	746	748		
Link Distance (ft)		392	392		259	259	707	707	
Upstream Blk Time (%)				1	0	62	85		
Queuing Penalty (veh)				2	0	0	0	0	
Storage Bay Dist (ft)	210			170					
Storage Blk Time (%)				5	0				
Queuing Penalty (veh)				8	0				

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	SB	SB	SB	SB	NE	NE	NE	TR
	T	TR	R>	T	T	R	R	L	LT	TR	
Directions Served											
Maximum Queue (ft)	113	130	91	501	502	62	62	92	128	103	
Average Queue (ft)	33	46	24	278	290	3	2	28	52	30	
95th Queue (ft)	85	106	71	487	499	50	44	71	108	80	
Link Distance (ft)	268	268	268	716	716	716	716	578	578		
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)										300	
Storage Blk Time (%)											
Queuing Penalty (veh)											

12/22/2021

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB
	LTR	LTR	LTR	LTR
Directions Served				
Maximum Queue (ft)	56	100	112	122
Average Queue (ft)	32	49	57	62
95th Queue (ft)	50	81	89	96
Link Distance (ft)		728	960	471
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	NB	NB	SB	SB
	L	R	L	T	T	TR
Directions Served						
Maximum Queue (ft)	56	69	178	230	113	292
Average Queue (ft)	15	28	85	85	23	150
95th Queue (ft)	45	54	149	196	74	318
Link Distance (ft)		728		532	259	259
Upstream Blk Time (%)					4	4
Queuing Penalty (veh)					23	25
Storage Bay Dist (ft)		70	170			
Storage Blk Time (%)	0	0	1	1		
Queuing Penalty (veh)	0	0	2	1		

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	NB	NB	SB	SB
	LT	R	LT	R	L	T	TR
Directions Served							
Maximum Queue (ft)	138	74	94	61	153	162	197
Average Queue (ft)	60	31	30	9	78	61	141
95th Queue (ft)	118	75	75	37	140	129	283
Link Distance (ft)		265		304		444	578
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50		70	170		200
Storage Blk Time (%)	17	1	2	0	1		0
Queuing Penalty (veh)	9	1	0	0	1		0
							3

12/22/2021

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	NB	NB	SB	SB	SB	B148	B148
	LT	R	LTR	L	T	TR	UL	T	TR	T
Directions Served										
Maximum Queue (ft)	124	75	40	63	131	129	55	300	308	175
Average Queue (ft)	29	46	9	39	31	44	13	147	157	21
95th Queue (ft)	85	79	33	68	95	105	42	336	352	103
Link Distance (ft)	304		191		145	145	221	221	268	268
Upstream Blk Time (%)				0	0	0	6	8	0	0
Queuing Penalty (veh)				0	0	0	36	43	0	0
Storage Bay Dist (ft)	5	9		15	3		1	15		
Storage Blk Time (%)	6	3		25	2		5	5		
Queuing Penalty (veh)										

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	NB	SB	SB	SB	SB	SB	SB
	LR	T	TR	L	T	T			
Directions Served									
Maximum Queue (ft)	57	32	49	71	120	121			
Average Queue (ft)	28	2	3	31	10	11			
95th Queue (ft)	53	16	23	64	57	58			
Link Distance (ft)	783	506	506		145	145			
Upstream Blk Time (%)				0	0	0			
Queuing Penalty (veh)				0	0	0			
Storage Bay Dist (ft)				50					
Storage Blk Time (%)				2	0				
Queuing Penalty (veh)				7	0				

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	SB	SB	SB	SB	SB	SB	SB
	LR	LT	TR						
Directions Served									
Maximum Queue (ft)	52	72	18						
Average Queue (ft)	24	14	1						
95th Queue (ft)	48	51	9						
Link Distance (ft)	783	470	960						
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Zone Summary

Zone wide Queuing Penalty: 483

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB
	L	T	R	L	T	R	L	T	R	L
Directions Served										
Maximum Queue (ft)	102	55	60	56	68	61	172	256	240	118
Average Queue (ft)	43	9	27	19	13	19	108	88	99	11
95th Queue (ft)	83	36	49	49	42	52	171	203	198	55
Link Distance (ft)			281			208		412	412	744
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	100		95	40		40	150		125	190
Storage Blk Time (%)	0		3	2		1	3		1	4
Queuing Penalty (veh)	0		1	1		0	14		3	1

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB
	T	R							
Directions Served									
Maximum Queue (ft)	137	99							
Average Queue (ft)	38	29							
95th Queue (ft)	94	70							
Link Distance (ft)		744							
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		140							
Storage Blk Time (%)	0	0							
Queuing Penalty (veh)	0	0							

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	SB	SB	SB	SB	SB
	LTR	R	UL	T	TR	T	T	TR	
Directions Served									
Maximum Queue (ft)	110	126	96	228	254	229	204	190	116
Average Queue (ft)	59	65	31	71	88	94	71	55	31
95th Queue (ft)	102	111	70	172	193	196	160	132	85
Link Distance (ft)	103	103		966	966	284	284	284	284
Upstream Blk Time (%)	1	1			0	0	0	0	
Queuing Penalty (veh)	2	3			0	0	0	0	
Storage Bay Dist (ft)			150						
Storage Blk Time (%)			1						
Queuing Penalty (veh)			0						

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	SB	TR
Directions Served	LT	T	R	L	T		
Maximum Queue (ft)	160	23	22	50	241	259	
Average Queue (ft)	115	3	2	8	113	120	
95th Queue (ft)	173	14	14	33	207	219	
Link Distance (ft)	150	259		548	548	548	
Upstream Blk Time (%)	6						
Queuing Penalty (veh)	14						
Storage Bay Dist (ft)			30				
Storage Blk Time (%)	0	1					
Queuing Penalty (veh)	0	0					

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB
Directions Served	T	R	LT	
Maximum Queue (ft)	15	36	427	
Average Queue (ft)	1	5	201	
95th Queue (ft)	8	22	370	
Link Distance (ft)	497	497	494	
Upstream Blk Time (%)		1		
Queuing Penalty (veh)		3		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	69	109	159	21
Average Queue (ft)	32	51	66	3
95th Queue (ft)	56	83	122	15
Link Distance (ft)	207	376	494	196
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	202	150	42	86
Average Queue (ft)	84	74	13	40
95th Queue (ft)	151	124	38	70
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	64	94	90	51
Average Queue (ft)	39	51	37	22
95th Queue (ft)	59	77	65	40
Link Distance (ft)	630	358		459
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			75	
Storage Blk Time (%)		1	0	
Queuing Penalty (veh)		1	0	

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	12	72	372	101
Average Queue (ft)	1	19	113	85
95th Queue (ft)	8	52	264	117
Link Distance (ft)	358	335	503	
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				76
Storage Blk Time (%)			12	9
Queuing Penalty (veh)			55	19

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	L	T	TR	L	L
Maximum Queue (ft)	237	282	196	54	88	187	217	285	760	764	210	210	219
Average Queue (ft)	124	154	137	10	31	82	179	159	718	721	143	143	149
95th Queue (ft)	217	244	215	35	69	183	210	364	838	831	215	215	229
Link Distance (ft)	335	335			175	175	175		736	736			
Upstream Blk Time (%)	0	0			3	31	31		19	20			
Queuing Penalty (veh)	0				5	56			130	136			
Storage Bay Dist (ft)													
Storage Blk Time (%)	5	2							0	69		2	4
Queuing Penalty (veh)	17	6							0	54		5	9

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR									
Maximum Queue (ft)	365	259	198	207									
Average Queue (ft)	137	133	96	98									
95th Queue (ft)	285	219	171	177									
Link Distance (ft)	966	966	966	966									
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)													
Storage Blk Time (%)	1												
Queuing Penalty (veh)	2												

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	TR								
Maximum Queue (ft)	90	90	313	455	125								
Average Queue (ft)	38	47	44	390	124								
95th Queue (ft)	75	78	205	528	132								
Link Distance (ft)			383	383									
Upstream Blk Time (%)			0	29									
Queuing Penalty (veh)			0	123									
Storage Bay Dist (ft)	125	125		100									
Storage Blk Time (%)	0	0		1	56								
Queuing Penalty (veh)	0	0		5	101								

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	B234	B234	NB	NB	NB
Directions Served	T	TR	L	T	T	T	T	T	T	T	L	L	R
Maximum Queue (ft)	231	252	129	250	327	49	246	481	125				
Average Queue (ft)	120	120	43	51	216	3	46	310	73				
95th Queue (ft)	202	213	97	170	364	51	205	527	158				
Link Distance (ft)	383	383		242	392	392		471					
Upstream Blk Time (%)				1	24			1	8				
Queuing Penalty (veh)				1	49			3	54				
Storage Bay Dist (ft)					165								
Storage Blk Time (%)				0	1				47				0
Queuing Penalty (veh)				0	1				57				1

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LR	R	L	L	T	T	T	T	T	TR	TR	TR
Maximum Queue (ft)	190	204	155	194	278	248	222	212					
Average Queue (ft)	95	114	72	128	131	108	132	112					
95th Queue (ft)	166	181	127	203	255	207	204	195					
Link Distance (ft)		392	392		259	259	707	707					
Upstream Blk Time (%)					2	0							
Queuing Penalty (veh)					10	1							
Storage Bay Dist (ft)	210				170								
Storage Blk Time (%)	0	0			4	2							
Queuing Penalty (veh)	0	0			20	6							

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

[illegible]

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NE
Directions Served	TR
Maximum Queue (ft)	290
Average Queue (ft)	159
95th Queue (ft)	323
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	1
Queuing Penalty (veh)	6

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB
	LTR	LTR	LTR	LTR
Directions Served				
Maximum Queue (ft)	174	163	779	126
Average Queue (ft)	68	68	407	60
95th Queue (ft)	134	131	902	98
Link Distance (ft)		728	960	471
Upstream Blk Time (%)			3	
Queuing Penalty (veh)			19	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	NB	NB	T	T	Sb	Sb
Directions Served	L	R	L	NB	T	T	Sb	TR
Maximum Queue (ft)	145	94	163	340	267	236	222	
Average Queue (ft)	57	35	40	159	94	94	98	
95th Queue (ft)	114	81	105	293	214	204	195	
Link Distance (ft)	728			532	532	259	259	
Upstream Blk Time (%)				0	0	0	0	
Queueing Penalty (veh)				0	0	0	0	
Storage Bay Dist (ft)	70		170					
Storage Bk Time (%)	9	0	0	2				
Queueing Penalty (veh)	5	0	0	6				

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	R	L	T	NB	NB	TR	L	T	SB	SB
Directions Served	LT	R	LT	R	R	L	T	NB	T	TR	L	T	SB	TR
Maximum Queue (ft)	239	75	134	78	195	461	481	124	210	226	124	210	226	226
Average Queue (ft)	110	58	43	15	90	311	357	43	75	77	43	75	77	77
95th Queue (ft)	218	92	97	49	190	519	532	96	160	173	96	160	173	173
Link Distance (ft)	265	304				444	444							
Upstream Blk Time (%)	2					15	21							
Queueing Penalty (veh)	0					0	0							
Storage Bay Dist (ft)		50			70	170		200						
Storage Bay Time (%)	28	6	4	0	0	18		20						
Queueing Penalty / veh)	42	11	1	0	2	18		0						

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	NB	NB	TR	SB	SB	SB	TR	SB	B148
Directions Served	LT	R	LTR	L	T	TR	UL	T	TR	T	T	T
Maximum Queue (ft)	218	75	74	65	108	198	59	265	268	84	90	
Average Queue (ft)	71	55	22	24	128	151	35	98	89	8	8	
95th Queue (ft)	197	90	58	64	198	214	69	254	248	70	73	
Link Distance (ft)	304		191		145	145		221	221	268	268	
Upstream Blk Time (%)	2				13	19		5	2	0	0	
Queueing Penalty (veh)	5				74	107		20	9	0	0	
Storage Bay Dist (ft)		50		40			35					
Storage Blk Time (%)	18	11		3	32	23	8					
Queueing Penalty (veh)	28	6		19	12	82	4					

12/22/2021

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	SB	SB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T	T
Maximum Queue (ft)	238	350	370	70	138	150	
Average Queue (ft)	100	80	110	24	15	19	
95th Queue (ft)	268	255	301	58	70	81	
Link Distance (ft)	783	506	506		145	145	
Upstream Blk Time (%)		0	0	0	0	0	
Queuing Penalty (veh)		0	0	0	0	1	
Storage Bay Dist (ft)				50			
Storage Blk Time (%)				3	1		
Queuing Penalty (veh)				13	0		

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	SB	SB	SB	SB	SB
Directions Served	LR	LT	TR				
Maximum Queue (ft)	95	245	22				
Average Queue (ft)	35	50	1				
95th Queue (ft)	76	233	10				
Link Distance (ft)	783	470	960				
Upstream Blk Time (%)		4					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Zone Summary

Zone wide Queuing Penalty: 2463

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L	T	R	L
Maximum Queue (ft)	106	183	119	42	39	30	167	162	139	22	32	462	
Average Queue (ft)	44	21	74	9	7	5	85	28	46	2	6	170	
95th Queue (ft)	88	100	122	33	30	22	143	91	100	13	24	330	
Link Distance (ft)		281			208			412	412			744	
Upstream Blk Time (%)		0											
Queuing Penalty (veh)		0											
Storage Bay Dist (ft)	100		95	40		40	150			125	190		
Storage Blk Time (%)	1		5	1		1	0		1	0	0		4
Queuing Penalty (veh)	1		4	0		0	3		0	0	0		0

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R											
Maximum Queue (ft)	612	165											
Average Queue (ft)	211	124											
95th Queue (ft)	448	208											
Link Distance (ft)		744											
Upstream Blk Time (%)		0											
Queuing Penalty (veh)		0											
Storage Bay Dist (ft)		140											
Storage Blk Time (%)		9		2									
Queuing Penalty (veh)		53		14									

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	T	TR				
Maximum Queue (ft)	126	151	91	115	129	304	337	330	277				
Average Queue (ft)	92	103	35	39	51	193	206	196	154				
95th Queue (ft)	122	157	74	96	112	309	339	328	271				
Link Distance (ft)	103	103		966	966	284	284	284	284				
Upstream Blk Time (%)		14				1	2	1	0				
Queuing Penalty (veh)		32				6	12	9	1				
Storage Bay Dist (ft)				150									
Storage Blk Time (%)				0									
Queuing Penalty (veh)				0									

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	SB	TR
Directions Served	LT	T	R	L	T		
Maximum Queue (ft)	80	31	38	25	76	90	
Average Queue (ft)	34	6	3	2	18	27	
95th Queue (ft)	69	22	20	12	55	73	
Link Distance (ft)	150	259		548	548	548	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			30				
Storage Blk Time (%)		1		0			
Queuing Penalty (veh)		0		0			

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB
Directions Served	T	R	LT	
Maximum Queue (ft)	6	31	528	
Average Queue (ft)	0	4	245	
95th Queue (ft)	4	20	490	
Link Distance (ft)	497	497	494	
Upstream Blk Time (%)			5	
Queuing Penalty (veh)			41	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	224	308	97	24
Average Queue (ft)	100	127	40	7
95th Queue (ft)	210	258	70	23
Link Distance (ft)	207	376	494	196
Upstream Blk Time (%)	6	0		
Queuing Penalty (veh)	0	1		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	111	226	31	250
Average Queue (ft)	56	92	11	141
95th Queue (ft)	92	170	35	252
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)			8	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	85	145	99	137
Average Queue (ft)	51	63	47	59
95th Queue (ft)	76	113	90	103
Link Distance (ft)	630	358		459
Upstream Blk Time (%)				
Queuing Penalty (veh)			75	
Storage Bay Dist (ft)		3	0	
Storage Blk Time (%)		4	0	
Queuing Penalty (veh)		4	0	

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	42	259	130	96
Average Queue (ft)	8	111	38	43
95th Queue (ft)	29	203	98	82
Link Distance (ft)	358	335	503	
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			76	
Storage Blk Time (%)			4	0
Queuing Penalty (veh)			4	0

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	L
Maximum Queue (ft)	122	326	195	137	189	212	91	129	133	202	202	225
Average Queue (ft)	49	118	131	34	82	107	130	29	57	59	113	175
95th Queue (ft)	100	235	202	92	145	187	207	69	113	119	186	275
Link Distance (ft)	335	335			175	175	175	736	736			
Upstream Blk Time (%)	0	0	0	0	2	4						
Queuing Penalty (veh)	1	0	1	5	10							
Storage Bay Dist (ft)		170	200				260			200	200	
Storage Blk Time (%)	2	4	0	0	0					0	1	
Queuing Penalty (veh)	6	7	0	0	0					1	4	

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR								
Maximum Queue (ft)	628	625	620	658								
Average Queue (ft)	307	328	347	397								
95th Queue (ft)	550	557	565	623								
Link Distance (ft)	966	966	966	966								
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)												
Storage Blk Time (%)	18											
Queuing Penalty (veh)	67											

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	TR							
Maximum Queue (ft)	81	91	88	296	125							
Average Queue (ft)	30	46	25	80	88							
95th Queue (ft)	66	75	64	224	140							
Link Distance (ft)			383	383								
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)	125	125			100							
Storage Blk Time (%)	0	0			6							
Queuing Penalty (veh)	0	0			2							

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	T	TR	L	T	T	T	T	L	R			
Maximum Queue (ft)	141	202	128	134	237	271	125					
Average Queue (ft)	60	91	53	27	86	135	38					
95th Queue (ft)	125	176	101	81	186	222	109					
Link Distance (ft)	383	383		242	242	471						
Upstream Blk Time (%)				0	0							
Queuing Penalty (veh)				0	1							
Storage Bay Dist (ft)		165					100					
Storage Blk Time (%)		0	0				18					
Queuing Penalty (veh)	1	0	0				7					

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	LR	R	L	T	T	T	T	T	T	TR	TR
Maximum Queue (ft)	85	122	132	194	288	160	746	758				
Average Queue (ft)	31	65	60	140	81	32	724	728				
95th Queue (ft)	71	106	105	212	230	102	735	745				
Link Distance (ft)	392	392		259	259	707						
Upstream Blk Time (%)				1	0	63	86					
Queuing Penalty (veh)				4	0	0	0					
Storage Bay Dist (ft)	210			170								
Storage Blk Time (%)		6	0									
Queuing Penalty (veh)		9	0									

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	B148	SB	SB	SB	SB	NE	NE	NE	NE
Directions Served	T	TR	R>	T	T	T	R	R	L	LT	TR	TR
Maximum Queue (ft)	131	157	123	2	528	525	106	19	100	129	101	
Average Queue (ft)	33	55	30	0	296	312	5	1	32	55	31	
95th Queue (ft)	91	124	87	4	516	525	71	19	76	107	82	
Link Distance (ft)	268	268	268	221	716	716	716	716	578			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)												300
Storage Blk Time (%)												
Queuing Penalty (veh)												

Queuing and Blocking Report

12/22/2021

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	59	98	102	131
Average Queue (ft)	33	50	54	63
95th Queue (ft)	51	80	82	100
Link Distance (ft)	728	960	471	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	WB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	55	65	180	238	169	299
Average Queue (ft)	14	27	90	94	26	173
95th Queue (ft)	41	55	158	204	93	342
Link Distance (ft)	728		532	532	259	259
Upstream Blk Time (%)					5	5
Queuing Penalty (veh)					33	35
Storage Bay Dist (ft)	70	170				
Storage Blk Time (%)	0	0	1	1		
Queuing Penalty (veh)	0	0	3	2		

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	WB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	TR
Maximum Queue (ft)	188	75	102	79	162	132
Average Queue (ft)	89	45	33	12	79	24
95th Queue (ft)	167	86	77	45	140	74
Link Distance (ft)	265		304		444	444
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	50		70	170	200	
Storage Blk Time (%)	25	3	2	0	0	6
Queuing Penalty (veh)	20	4	0	0	0	4

Queuing and Blocking Report

12/22/2021

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	WB	NB	SB	SB	SB
Directions Served	LT	R	L	TR	TR	T
Maximum Queue (ft)	169	75	46	65	144	142
Average Queue (ft)	41	50	10	41	38	51
95th Queue (ft)	111	84	35	72	105	116
Link Distance (ft)	304		191		145	145
Upstream Blk Time (%)	0				1	0
Queuing Penalty (veh)	0				1	0
Storage Bay Dist (ft)		50		40		35
Storage Blk Time (%)	8	12		17	3	1
Queuing Penalty (veh)	11	5		31	3	7

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	SB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T
Maximum Queue (ft)	66	35	55	68	104	100
Average Queue (ft)	27	3	4	34	11	11
95th Queue (ft)	54	17	25	66	58	60
Link Distance (ft)	783	506	506		145	145
Upstream Blk Time (%)					0	0
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)				50		
Storage Blk Time (%)				2	0	
Queuing Penalty (veh)				10	0	

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	SB	SB	SB	SB
Directions Served	LR	LT	TR			
Maximum Queue (ft)	59	70	19			
Average Queue (ft)	25	14	1			
95th Queue (ft)	53	50	9			
Link Distance (ft)	783	470	960			
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Zone Summary

Zone wide Queuing Penalty: 602

12/22/2021

Intersection: 1: N Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L	T	R
Maximum Queue (ft)	96	61	61	57	65	63	173	240	222	74	54	222
Average Queue (ft)	45	9	29	18	16	19	110	80	87	7	16	70
95th Queue (ft)	85	56	56	50	47	51	177	195	175	40	41	169
Link Distance (ft)	281			208			412	412				744
Upstream Blk Time (%)	0			0								0
Queuing Penalty (veh)	0			0								0
Storage Bay Dist (ft)	100			95			40	150			125	190
Storage Blk Time (%)	0			1			2	1	5		1	2
Queuing Penalty (veh)	0			1			1	0	25		1	1

Intersection: 1: N Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T		R									
Maximum Queue (ft)	188		108									
Average Queue (ft)	50		31									
95th Queue (ft)	147		75									
Link Distance (ft)	744											
Upstream Blk Time (%)	0		0									
Queuing Penalty (veh)	0		140									
Storage Bay Dist (ft)	1		0									
Storage Blk Time (%)	1		0									
Queuing Penalty (veh)	2		0									

Intersection: 2: N Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	T	T	TR		
Maximum Queue (ft)	112	134	110	286	296	248	250	222	143			
Average Queue (ft)	65	69	32	82	100	110	89	68	42			
95th Queue (ft)	110	119	77	211	233	216	195	168	120			
Link Distance (ft)	103	103		966	966	284	284	284	284			
Upstream Blk Time (%)	3	4				2	2	2	2	1		
Queuing Penalty (veh)	5	8				7	7	7	7	5		
Storage Bay Dist (ft)			150									
Storage Blk Time (%)			2									
Queuing Penalty (veh)			1									

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	NB	NB	NB	NB	NB	NB	NB
Directions Served	LT	T	R	L	T	TR						
Maximum Queue (ft)	168	25	24	50	244	244						
Average Queue (ft)	114	2	1	9	103	107						
95th Queue (ft)	171	13	12	35	205	212						
Link Distance (ft)	150	259		548	548	548						
Upstream Blk Time (%)	6											
Queuing Penalty (veh)	13											
Storage Bay Dist (ft)			30									
Storage Blk Time (%)			0		1							
Queuing Penalty (veh)			0		0							

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R	LT									
Maximum Queue (ft)	47	119	544									
Average Queue (ft)	2	21	418									
95th Queue (ft)	23	78	640									
Link Distance (ft)	497	497	494									
Upstream Blk Time (%)			29									
Queuing Penalty (veh)			140									
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	LTR	LTR	LTR	LTR							
Maximum Queue (ft)	150	368	249	21								
Average Queue (ft)	51	201	80	3								
95th Queue (ft)	120	452	196	16								
Link Distance (ft)	207	376	494	196								
Upstream Blk Time (%)	0	11	0									
Queuing Penalty (veh)	0	56	1									
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	251	495	47	180
Average Queue (ft)	99	253	14	67
95th Queue (ft)	199	626	40	157
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	0	6		1
Queueing Penalty (veh)	1	31		0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queueing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	R	LR		
Maximum Queue (ft)	117	233	95	65		
Average Queue (ft)	42	86	42	24		
95th Queue (ft)	104	236	85	48		
Link Distance (ft)	630	358		459		
Upstream Blk Time (%)		3				
Queueing Penalty (veh)		19				
Storage Bay Dist (ft)			75			
Storage Blk Time (%)		12	0			
Queueing Penalty (veh)		15	0			

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	WB	NB	NB
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	60	112	71	489	101
Average Queue (ft)	5	25	6	206	91
95th Queue (ft)	69	74	63	472	122
Link Distance (ft)	358	335	335	503	
Upstream Blk Time (%)	1	0	0	9	
Queueing Penalty (veh)	2	0	0	0	
Storage Bay Dist (ft)					76
Storage Blk Time (%)					26
Queueing Penalty (veh)					117

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	L	T	TR	L	T	TR	L	L
Maximum Queue (ft)	252	335	195	71	117	197	210	285	762	766	210	224
Average Queue (ft)	120	166	139	17	42	88	174	143	691	692	150	156
95th Queue (ft)	220	278	212	53	100	190	219	355	960	959	229	245
Link Distance (ft)	335	335			175	175	175		736	736		
Upstream Blk Time (%)	0	2	2	2	3	27	16		115	125		
Queueing Penalty (veh)	0	5			4	5	51					
Storage Bay Dist (ft)								260			200	200
Storage Blk Time (%)		8	2		2			0	64		3	6
Queueing Penalty (veh)		25	6		1			0	50		9	16

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR			
Maximum Queue (ft)	447	417	304				
Average Queue (ft)	173	165	127	131			
95th Queue (ft)	441	416	359	356			
Link Distance (ft)	966	966	966	966			
Upstream Blk Time (%)	2	2	2	2			
Queueing Penalty (veh)	8	8	7	7			
Storage Bay Dist (ft)							
Storage Blk Time (%)	4						
Queueing Penalty (veh)	17						

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	L	L	T	T	T	TR	
Maximum Queue (ft)	102	96	6	389	467	125	
Average Queue (ft)	41	50	0	63	381	122	
95th Queue (ft)	82	84	5	253	558	150	
Link Distance (ft)			177	383	383		
Upstream Blk Time (%)				0	27		
Queueing Penalty (veh)				2	118		
Storage Bay Dist (ft)		125				100	
Storage Blk Time (%)		0	0		1	53	
Queueing Penalty (veh)		0	0		4	100	

Queuing and Blocking Report

12/22/2021

Intersection: 11: N Broadway & Parkside Dr

Movement	EB	EB	WB	WB	WB	B234	B234	NB	NB
Directions Served	T	TR	L	T	T	T	T	L	R
Maximum Queue (ft)	289	292	151	240	337	186	304	482	125
Average Queue (ft)	120	123	44	59	225	20	74	290	83
95th Queue (ft)	226	234	108	182	383	155	281	503	167
Link Distance (ft)	383	383		242	242	392	392	471	
Upstream Blk Time (%)	0	0	0	0	30	0	2	4	
Queuing Penalty (veh)	0	0	1	67	0	5	24		
Storage Bay Dist (ft)			165					100	
Storage Blk Time (%)			0	1				44	0
Queuing Penalty (veh)			0	1				53	0

Intersection: 12: N Civic Dr & Parkside Dr

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB
Directions Served	L	LR	R	L	T	T	T	TR	
Maximum Queue (ft)	200	210	154	194	287	264	238	256	
Average Queue (ft)	100	118	72	137	148	119	141	118	
95th Queue (ft)	173	189	127	219	290	241	216	213	
Link Distance (ft)		392	392		259	259	707	707	
Upstream Blk Time (%)					5	0			
Queuing Penalty (veh)					28	2			
Storage Bay Dist (ft)	210			170					
Storage Blk Time (%)	0	0		9	3				
Queuing Penalty (veh)	0	1		43	9				

Queuing and Blocking Report

12/22/2021

Intersection: 13: California Blvd./Lawrence Way & N Main St. & Pine St.

Movement	NB	NB	NB	NB	NB	B148	B148	SB	SB	SB	SB	NE	NE
Directions Served	T	TR	R>	T	T	T	T	T	T	R	R	L	LT
Maximum Queue (ft)	371	369	358	319	297	274	435	419	94	93	259	285	
Average Queue (ft)	316	316	270	204	190	130	277	287	32	3	116	150	
95th Queue (ft)	443	444	443	381	347	301	479	482	268	77	283	318	
Link Distance (ft)	268	268	268	221	221	221	716	716	716	716	578	578	
Upstream Blk Time (%)	69	70	31	26	4	3	3	2	0	0	0	0	
Queuing Penalty (veh)	350	355	155	156	131	21	10	11	8	0	0	2	
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

Intersection: 13: California Blvd./Lawrence Way & N Main St. & Pine St.

Movement	NE	NE	NE	NE	NE	NE	NE	NE	NE
Directions Served	TR								
Maximum Queue (ft)	252								
Average Queue (ft)	126								
95th Queue (ft)	264								
Link Distance (ft)									
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	300								
Storage Blk Time (%)	0								
Queuing Penalty (veh)	2								

Intersection: 14: N Broadway & Pine St.

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Maximum Queue (ft)	145	178	581	147					
Average Queue (ft)	60	67	232	65					
95th Queue (ft)	111	166	537	153					
Link Distance (ft)		728	960	471					
Upstream Blk Time (%)			0	1					
Queuing Penalty (veh)			0	1					
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Queuing and Blocking Report

12/22/2021

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	WB	WB	NB	NB	SB	SB	TR	TR
Directions Served	L	R	L	R	L	T	T	T	T	TR
Maximum Queue (ft)	184	94	149	392	307	248	258			
Average Queue (ft)	59	34	39	192	120	97	104			
95th Queue (ft)	131	80	112	387	303	213	215			
Link Distance (ft)	728			532	532	239	259			
Upstream Blk Time (%)				4	0	0	0	1		
Queuing Penalty (veh)				0	0	0	0	1		
Storage Bay Dist (ft)				70	170					
Storage Blk Time (%)				9	0	0	11			
Queuing Penalty (veh)				5	0	0	4			

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB	TR	TR
Directions Served	LT	R	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	287	75	152	90	195	468	479	155	253	266
Average Queue (ft)	188	63	57	21	94	312	366	62	121	108
95th Queue (ft)	324	101	122	68	194	505	543	153	314	243
Link Distance (ft)	265		304		444	444		578	578	
Upstream Blk Time (%)	20				10	25	0	3		
Queuing Penalty (veh)	0				0	0	0	9		
Storage Bay Dist (ft)				50	70	170		200		
Storage Blk Time (%)	43	15	7	1	1	25		7	1	
Queuing Penalty (veh)	111	30	2	1	5	31	18	0		

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB	B148	B148
Directions Served	LT	R	LTR	L	T	TR	UL	T	TR	T
Maximum Queue (ft)	314	75	68	64	182	208	60	302	306	205
Average Queue (ft)	130	57	22	36	132	152	33	156	140	47
95th Queue (ft)	321	93	57	77	209	236	69	342	321	202
Link Distance (ft)	304		191		145	145		221	221	268
Upstream Blk Time (%)	15				25	31		20	5	7
Queuing Penalty (veh)	38				148	185		80	22	28
Storage Bay Dist (ft)				40			35			1
Storage Blk Time (%)	26	26		7	41		31		20	
Queuing Penalty (veh)	42	16		52	28		116		9	

Queuing and Blocking Report

12/22/2021

Intersection: 18: N.Main St. & Central Rd

Movement	WB	WB	NB	NB	SB	SB	TR	TR	TR	TR
Directions Served	LR		T	TR	L	T	T			
Maximum Queue (ft)	429	508	522	69	152	133				
Average Queue (ft)	231	282	306	29	35	21				
95th Queue (ft)	569	649	649	67	129	87				
Link Distance (ft)	783	506	506		145	145				
Upstream Blk Time (%)	4	29	34		13	0				
Queuing Penalty (veh)	2	0	0		59	1				
Storage Bay Dist (ft)					50					
Storage Blk Time (%)					13	9				
Queuing Penalty (veh)					52	4				

Intersection: 19: N.Broadway & Central Rd

Movement	EB	EB	NB	NB	SB	SB	TR	TR	TR	TR
Directions Served	LR		LT	TR						
Maximum Queue (ft)	76	138	109							
Average Queue (ft)	27	33	28							
95th Queue (ft)	61	186	287							
Link Distance (ft)	783	470	960							
Upstream Blk Time (%)		4	2							
Queuing Penalty (veh)		0	7							
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

Zone Summary

Zone wide Queuing Penalty: 3744

12/22/2021

Intersection: 1: N Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L	T	R
Maximum Queue (ft)	114	167	118	41	39	32	158	165	131	23	68	498
Average Queue (ft)	55	16	69	7	7	4	85	32	47	3	7	170
95th Queue (ft)	103	89	115	29	28	21	147	107	102	15	45	340
Link Distance (ft)	281											
Upstream Blk Time (%)	208											
Queuing Penalty (veh)	412											
Storage Bay Dist (ft)	100	95										
Storage Blk Time (%)	2	4										
Queuing Penalty (veh)	5	4										

Intersection: 1: N Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R										
Maximum Queue (ft)	573	165										
Average Queue (ft)	206	120										
95th Queue (ft)	424	207										
Link Distance (ft)	744											
Upstream Blk Time (%)	0											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)	140											
Storage Blk Time (%)	8											
Queuing Penalty (veh)	50											

Intersection: 2: N Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	T	TR			
Maximum Queue (ft)	125	150	86	134	150	302	340	325	280			
Average Queue (ft)	89	92	31	46	53	187	198	189	150			
95th Queue (ft)	120	154	68	104	113	314	334	324	266			
Link Distance (ft)	103	103		966	966	284	284	284	284			
Upstream Blk Time (%)	10	10				1	2	1	0			
Queuing Penalty (veh)	25	24				7	10	6	1			
Storage Bay Dist (ft)	150											
Storage Blk Time (%)	0											
Queuing Penalty (veh)	0											

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	NB	NB	NB	NB	NB	NB	NB
Directions Served	LT	T	R	L	T	TR						
Maximum Queue (ft)	92	40	39	26	142	146						
Average Queue (ft)	38	8	4	2	33	37						
95th Queue (ft)	79	27	21	14	101	107						
Link Distance (ft)	150											
Upstream Blk Time (%)	259											
Queuing Penalty (veh)	548											
Storage Bay Dist (ft)	30											
Storage Blk Time (%)	2											
Queuing Penalty (veh)	0											

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R	LT									
Maximum Queue (ft)	2	50	556									
Average Queue (ft)	0	9	520									
95th Queue (ft)	2	34	586									
Link Distance (ft)	432											
Upstream Blk Time (%)	60											
Queuing Penalty (veh)	492											
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	LTR	LTR	LTR	LTR							
Maximum Queue (ft)	239	392	229	30								
Average Queue (ft)	186	352	78	6								
95th Queue (ft)	279	450	162	23								
Link Distance (ft)	207	376	494	196								
Upstream Blk Time (%)	48											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	262	619	42	277
Average Queue (ft)	115	471	12	249
95th Queue (ft)	219	763	37	279
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	0	11	95	0
Queuing Penalty (veh)	1	53	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	R	R	LR	LR
Maximum Queue (ft)	94	317	100	270	270	270
Average Queue (ft)	53	127	58	94	94	94
95th Queue (ft)	81	310	111	231	231	231
Link Distance (ft)	630	358		459		
Upstream Blk Time (%)	0	6		0		
Queuing Penalty (veh)	33			75		
Storage Bay Dist (ft)						
Storage Blk Time (%)	25	0				
Queuing Penalty (veh)	33	1				

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	WB	WB	NB	NB
Directions Served	TR	L	T	T	L	R
Maximum Queue (ft)	103	277	109	271	101	101
Average Queue (ft)	13	113	14	77	45	45
95th Queue (ft)	61	215	99	259	95	95
Link Distance (ft)	358	335	335	503		
Upstream Blk Time (%)	0	0	0	2		
Queuing Penalty (veh)	0	0	1	0		
Storage Bay Dist (ft)					76	
Storage Blk Time (%)					16	1
Queuing Penalty (veh)					17	0

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	L	T	TR	L	T	TR	L	L
Maximum Queue (ft)	189	330	196	169	185	197	220	119	144	164	209	225
Average Queue (ft)	61	146	146	59	110	122	146	40	61	69	120	165
95th Queue (ft)	137	272	214	134	177	201	223	97	120	138	198	262
Link Distance (ft)	335	335			175	175	175		736	736		
Upstream Blk Time (%)	0	1	0	2	4	8						
Queuing Penalty (veh)	0	2		0	6	11	24					
Storage Bay Dist (ft)			170	200			260				200	200
Storage Blk Time (%)		4	8	0	2						0	2
Queuing Penalty (veh)		13	15	0	2						2	8

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	T	TR	TR
Maximum Queue (ft)	437	453	497	546		
Average Queue (ft)	240	265	285	334		
95th Queue (ft)	412	424	455	513		
Link Distance (ft)	966	966	966	966		
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)	10					
Queuing Penalty (veh)	40					

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	WB	WB	WB	WB	TR	TR
Directions Served	L	L	T	T	T	T	TR		
Maximum Queue (ft)	115	120	19	127	382	125			
Average Queue (ft)	54	64	1	27	114	92			
95th Queue (ft)	102	106	19	84	316	151			
Link Distance (ft)			177	383	383				
Upstream Blk Time (%)			0		1				
Queuing Penalty (veh)			0		4				
Storage Bay Dist (ft)		125				100			
Storage Blk Time (%)		0	0		1	10			
Queuing Penalty (veh)		0	0		5	27			

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	WB	WB	WB	B234	NB	NB	R
Directions Served	T	TR	L	T	T	T	L	R	
Maximum Queue (ft)	219	245	128	166	231	8	323	125	
Average Queue (ft)	88	117	57	40	104	0	174	54	
95th Queue (ft)	176	214	106	105	196	8	282	134	
Link Distance (ft)	383	383	242	242	392	471			
Upstream Blk Time (%)			0				0		
Queuing Penalty (veh)			1				0		
Storage Bay Dist (ft)			165				100		
Storage Blk Time (%)			0	0			26	0	
Queuing Penalty (veh)			0	0			17	0	

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	NB	NB	NB	SB	SB	TR
Directions Served	L	LR	R	L	T	T	T	TR	
Maximum Queue (ft)	91	124	130	194	287	230	747	758	
Average Queue (ft)	35	67	61	157	120	56	717	721	
95th Queue (ft)	79	110	109	222	283	167	798	792	
Link Distance (ft)		392	392	259	259	707	707		
Upstream Blk Time (%)				4	0	55	76		
Queuing Penalty (veh)				13	0	0	0		
Storage Bay Dist (ft)	210			170					
Storage Blk Time (%)				14	0				
Queuing Penalty (veh)				28	1				

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	SB	SB	NE	NE	NE	TR
Directions Served	T	TR	R>	T	T	L	LT	TR	
Maximum Queue (ft)	167	189	178	406	413	158	189	168	
Average Queue (ft)	64	81	56	179	196	57	87	66	
95th Queue (ft)	139	158	135	379	389	118	162	139	
Link Distance (ft)	268	268	268	716	716	578	578		
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)							300		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB	LTR	LTR
Directions Served	LTR	LTR	LTR	LTR		
Maximum Queue (ft)	57	100	129	130		
Average Queue (ft)	32	51	68	64		
95th Queue (ft)	51	82	105	104		
Link Distance (ft)		728	960	471		
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	NB	NB	SB	SB	TR
Directions Served	L	R	L	T	T	TR	
Maximum Queue (ft)	61	73	183	286	223	299	299
Average Queue (ft)	14	29	88	110	42	164	172
95th Queue (ft)	44	59	161	239	140	334	330
Link Distance (ft)		728		532	532	259	259
Upstream Blk Time (%)					5	5	
Queuing Penalty (veh)					32	30	
Storage Bay Dist (ft)		70		170			
Storage Blk Time (%)		0		1	0	3	
Queuing Penalty (veh)		0		0	2	3	

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB	TR
Directions Served	LT	R	LT	R	L	T	L	T	TR
Maximum Queue (ft)	215	75	114	71	157	196	244	175	306
Average Queue (ft)	85	43	33	15	76	64	116	40	136
95th Queue (ft)	166	87	85	48	138	143	216	113	261
Link Distance (ft)		265		304		444	444		578
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)		50		70		170		200	
Storage Blk Time (%)		25	3	2	0	0	0	4	
Queuing Penalty (veh)		20	5	0	0	0	0	2	

12/22/2021

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	NB	NB	SB	SB	SB	SB	B148	B148
	LT	R	LTR	L	T	TR	UL	T	TR	T	T
Directions Served											
Maximum Queue (ft)	139	75	40	64	159	176	59	306	301	163	164
Average Queue (ft)	33	47	11	45	78	97	19	126	133	17	19
95th Queue (ft)	94	80	35	74	161	183	50	312	321	89	97
Link Distance (ft)	304		191		145	145		221	221	268	268
Upstream Blk Time (%)				2	3			5	6	0	0
Queuing Penalty (veh)				6	12			30	34	0	0
Storage Bay Dist (ft)		50		40			35				
Storage Blk Time (%)	5	10		18	10		2	14			
Queuing Penalty (veh)	6	4		67	10		13	5			

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	NB	SB	SB	SB	SB	SB	SB	SB
	LR	T	TR	L	T	T				
Directions Served										
Maximum Queue (ft)	80	89	117	74	151	148				
Average Queue (ft)	30	11	19	42	19	15				
95th Queue (ft)	60	52	73	75	88	78				
Link Distance (ft)	777	506	506		145	145				
Upstream Blk Time (%)				0	0					
Queuing Penalty (veh)				3	1					
Storage Bay Dist (ft)				50						
Storage Blk Time (%)				7	0					
Queuing Penalty (veh)				31	0					

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	NB	SB	SB	SB	SB	SB	SB	SB
	LR	L	T	TR						
Directions Served										
Maximum Queue (ft)	69	46	45	20						
Average Queue (ft)	29	12	4	1						
95th Queue (ft)	56	38	25	11						
Link Distance (ft)	777		471	960						
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		50								
Storage Blk Time (%)		0		0						
Queuing Penalty (veh)		1		0						

Zone Summary

Zone wide Queuing Penalty: 1445

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
	L	T	R	L	T	R	L	T	TR	R	L
Directions Served											
Maximum Queue (ft)	119	262	120	62	151	62	174	318	322	99	215
Average Queue (ft)	51	86	73	28	32	20	126	121	123	9	67
95th Queue (ft)	109	279	137	65	122	53	194	275	268	58	214
Link Distance (ft)		281			208			412	412		744
Upstream Blk Time (%)		12		1				0			37
Queuing Penalty (veh)		0		0				0			0
Storage Bay Dist (ft)		100		95	40		40	150		125	190
Storage Blk Time (%)		3		0	28	22	3	2	9	3	0
Queuing Penalty (veh)		3		0	24	10	1	59	8	2	0

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
	T	R									
Directions Served											
Maximum Queue (ft)		790		165							
Average Queue (ft)		674		149							
95th Queue (ft)		999		221							
Link Distance (ft)		744									
Upstream Blk Time (%)		69									
Queuing Penalty (veh)		0									
Storage Bay Dist (ft)		140									
Storage Blk Time (%)		73		1							
Queuing Penalty (veh)		254		6							

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB	SB
	LTR	R	UL	T	TR	T	T	T	TR		
Directions Served											
Maximum Queue (ft)	152	156	122	296	318	342	366	369	298		
Average Queue (ft)	110	127	34	157	176	308	338	342	154		
95th Queue (ft)	140	164	93	312	332	331	366	382	308		
Link Distance (ft)	103	103		966	966	284	284	284	284		
Upstream Blk Time (%)		70				62	75	66	1		
Queuing Penalty (veh)		160		166		330	402	355	3		
Storage Bay Dist (ft)				150							
Storage Blk Time (%)				0		8					
Queuing Penalty (veh)				0		3					

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	TR
Directions Served	LT	T	R	L	T	TR
Maximum Queue (ft)	159	35	26	139	346	363
Average Queue (ft)	119	8	1	39	149	160
95th Queue (ft)	180	41	13	176	316	331
Link Distance (ft)	150	259		548	548	
Upstream Blk Time (%)	11					
Queuing Penalty (veh)	27					
Storage Bay Dist (ft)			30			
Storage Blk Time (%)	9		1			
Queuing Penalty (veh)	0		0			

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB
Directions Served	T	R	LT	LT
Maximum Queue (ft)	2	75	454	
Average Queue (ft)	0	7	205	
95th Queue (ft)	2	53	391	
Link Distance (ft)	432	432	494	
Upstream Blk Time (%)	0	1		
Queuing Penalty (veh)	0	3		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	77	121	169	21
Average Queue (ft)	33	52	67	2
95th Queue (ft)	61	93	125	13
Link Distance (ft)	207	376	494	196
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	269	279	33	152
Average Queue (ft)	112	111	13	65
95th Queue (ft)	209	219	37	118
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	142	83	65	52
Average Queue (ft)	50	46	30	22
95th Queue (ft)	137	69	49	41
Link Distance (ft)	630	358		459
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	1			
Storage Bay Dist (ft)			75	
Storage Blk Time (%)	0	0	0	
Queuing Penalty (veh)	1	1	0	

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	301	107	551	101
Average Queue (ft)	94	27	475	100
95th Queue (ft)	245	73	664	105
Link Distance (ft)	358	335	503	
Upstream Blk Time (%)	2		72	
Queuing Penalty (veh)	5		0	
Storage Bay Dist (ft)				76
Storage Blk Time (%)			26	64
Queuing Penalty (veh)			124	188

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR	L
Maximum Queue (ft)	365	383	207	62	113	190	221	285	757	763	212	212	225
Average Queue (ft)	280	310	181	14	40	98	182	155	676	681	206	206	221
95th Queue (ft)	408	446	234	43	93	199	200	343	932	942	239	239	252
Link Distance (ft)	335	335			175	175	175		736	736			
Upstream Blk Time (%)	16	23		0	8	54			7	8			
Queuing Penalty (veh)	60	85		0	21	149			69	79			
Storage Bay Dist (ft)				170	200			260			200	200	
Storage Blk Time (%)				40	34		0		0	53	32	71	
Queuing Penalty (veh)				169	110		0		0	61	117	257	

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR									
Maximum Queue (ft)	984	978	937	604									
Average Queue (ft)	973	389	248	143									
95th Queue (ft)	981	940	695	361									
Link Distance (ft)	966	966	966	966									
Upstream Blk Time (%)	49	1	0	0									
Queuing Penalty (veh)	285	5	1	0									
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	T	TR							
Maximum Queue (ft)	99	94	63	81	274	469	125						
Average Queue (ft)	33	48	3	3	34	431	125						
95th Queue (ft)	75	80	29	34	182	459	126						
Link Distance (ft)			177	177	383	383							
Upstream Blk Time (%)			0	0	0	58							
Queuing Penalty (veh)			0	1	1	365							
Storage Bay Dist (ft)			125				100						
Storage Blk Time (%)			0	0	0		74						
Queuing Penalty (veh)			0	0	0		8						

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	T	TR	L	T	T	T	T	T	T	L	R		
Maximum Queue (ft)	381	387	190	296	346	393	412	485	125				
Average Queue (ft)	181	186	38	111	317	152	366	441	76				
95th Queue (ft)	337	352	120	283	334	434	487	598	172				
Link Distance (ft)	383	383		242	242	392	392	471					
Upstream Blk Time (%)	0	1	6	91	0	54	36						
Queuing Penalty (veh)	3	4	15	218	0	131	269						
Storage Bay Dist (ft)				165							100		
Storage Blk Time (%)				0	5			75	0				
Queuing Penalty (veh)				0	3			91	1				

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	LR	R	L	T	T	T	T	T	T	TR		
Maximum Queue (ft)	209	233	190	195	300	289	652	674					
Average Queue (ft)	117	135	92	188	260	105	443	459					
95th Queue (ft)	200	218	168	228	333	255	801	818					
Link Distance (ft)		392	392		259	259	707	707					
Upstream Blk Time (%)				70	1	21	27						
Queuing Penalty (veh)				459	3	0	0						
Storage Bay Dist (ft)				170									
Storage Blk Time (%)			2	86	0								
Queuing Penalty (veh)			1	4	432	1							

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	NB	B148	B148	B148	B148	SB	SB	SB	NE	NE
Directions Served	T	TR	R	R	T	T	T	T	T	R	L	LT	TR
Maximum Queue (ft)	375	370	343	309	310	286	313	306	86	390	415	313	
Average Queue (ft)	318	314	244	230	216	111	136	140	10	162	187	152	
95th Queue (ft)	453	449	415	391	364	296	323	328	153	335	370	302	
Link Distance (ft)	268	268	268	221	221	221	716	716	716	578	578		
Upstream Blk Time (%)	77	77	15	33	28	2	1	1	1	0	0		
Queuing Penalty (veh)	478	476	93	202	171	14	6	5	1	1			
Storage Bay Dist (ft)												300	
Storage Blk Time (%)												2	0
Queuing Penalty (veh)												6	2

12/22/2021

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	209	283	976	259
Average Queue (ft)	117	110	964	86
95th Queue (ft)	220	257	976	243
Link Distance (ft)	728	960	471	
Upstream Blk Time (%)	49	2		
Queuing Penalty (veh)	385	5		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	536	95	195	577	558	246
Average Queue (ft)	203	33	75	505	405	121
95th Queue (ft)	579	92	217	698	726	253
Link Distance (ft)	728	573	532	532	259	259
Upstream Blk Time (%)	7		75	11	1	1
Queuing Penalty (veh)	16		0	0	3	4
Storage Bay Dist (ft)						
Storage Blk Time (%)	47	0	0	84		
Queuing Penalty (veh)	35	0	0	32		

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	NB	SB	SB
Directions Served	LT	R	LT	R	L	TR
Maximum Queue (ft)	302	75	176	90	195	493
Average Queue (ft)	243	62	69	22	113	421
95th Queue (ft)	354	103	145	70	223	562
Link Distance (ft)	265	304			444	444
Upstream Blk Time (%)	42				35	50
Queuing Penalty (veh)	0				0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)	58	21	13	0	2	25
Queuing Penalty (veh)	153	43	3	0	11	33

12/22/2021

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	T
Maximum Queue (ft)	314	76	107	65	193	212
Average Queue (ft)	128	54	31	34	148	163
95th Queue (ft)	318	94	88	77	220	244
Link Distance (ft)	304		191		145	145
Upstream Blk Time (%)	16	0	0	31	37	13
Queuing Penalty (veh)	46	0	0	231	273	66
Storage Bay Dist (ft)						
Storage Blk Time (%)	35	17		5	48	31
Queuing Penalty (veh)	56	10		43	32	148

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T
Maximum Queue (ft)	450	538	550	66	130	142
Average Queue (ft)	262	435	462	31	32	22
95th Queue (ft)	573	665	656	67	120	88
Link Distance (ft)	777	506	506		145	145
Upstream Blk Time (%)	2	38	58	12	0	0
Queuing Penalty (veh)	1	0	0	66	2	2
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	NB	SB	SB	SB
Directions Served	LR	L	T	TR		
Maximum Queue (ft)	467	74	528	114		
Average Queue (ft)	216	27	489	17		
95th Queue (ft)	574	85	530	220		
Link Distance (ft)	777		471	960		
Upstream Blk Time (%)	1		98	1		
Queuing Penalty (veh)	1		0	5		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Zone Summary

Zone wide Queuing Penalty: 9239

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
	L	T	R	L	T	R	L	T	R	T	L	T
Directions Served												
Maximum Queue (ft)	109	174	120	44	40	40	168	188	149	23	70	497
Average Queue (ft)	46	19	73	7	8	6	90	35	45	3	8	187
95th Queue (ft)	88	96	121	30	31	26	151	118	105	16	46	366
Link Distance (ft)	281											
Upstream Blk Time (%)	208											
Queuing Penalty (veh)	412											
Storage Bay Dist (ft)	100	95		40	40		150	40		125	190	0
Storage Blk Time (%)	1	5		1	0		2	0		0	6	0
Queuing Penalty (veh)	1	4		0	0		5	0		0	0	0

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB
	T	R		
Directions Served				
Maximum Queue (ft)	607	165		
Average Queue (ft)	234	122		
95th Queue (ft)	494	209		
Link Distance (ft)	744			
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		140		
Storage Blk Time (%)	10	3		
Queuing Penalty (veh)	60	18		

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	SB	SB	SB	SB	SB	
	LTR	R	UL	T	TR	T	T	T	TR	
Directions Served										
Maximum Queue (ft)	123	150	86	128	123	312	335	337	272	
Average Queue (ft)	90	99	37	45	52	209	214	204	155	
95th Queue (ft)	122	155	78	103	108	326	352	346	267	
Link Distance (ft)	103	103	966		966	284	284	284	284	
Upstream Blk Time (%)	12	15				2	3	2	0	
Queuing Penalty (veh)	29	36				12	16	12	0	
Storage Bay Dist (ft)	150									
Storage Blk Time (%)	0									
Queuing Penalty (veh)	0									

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	NB	NB	NB	NB	NB	NB	NB
	LT	T	R	L	T	R	L	T	R	L	T	TR
Directions Served												
Maximum Queue (ft)	88	36	39	22	84	97						
Average Queue (ft)	32	6	4	2	20	28						
95th Queue (ft)	68	23	23	12	61	74						
Link Distance (ft)	150											
Upstream Blk Time (%)	259											
Queuing Penalty (veh)	548											
Storage Bay Dist (ft)	30											
Storage Blk Time (%)	1											
Queuing Penalty (veh)	0											

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB																
	T	R	LT	LT																
Directions Served																				
Maximum Queue (ft)	2	32	544																	
Average Queue (ft)	0	5	269																	
95th Queue (ft)	2	21	545																	
Link Distance (ft)	497																			
Upstream Blk Time (%)	12																			
Queuing Penalty (veh)	95																			
Storage Bay Dist (ft)																				
Storage Blk Time (%)																				
Queuing Penalty (veh)																				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB
	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Directions Served												
Maximum Queue (ft)	226	341	80	27								
Average Queue (ft)	117	140	38	6								
95th Queue (ft)	245	289	66	22								
Link Distance (ft)	207	376	494	196								
Upstream Blk Time (%)	18	1										
Queuing Penalty (veh)	0	4										
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	138	230	32	258
Average Queue (ft)	56	95	9	148
95th Queue (ft)	102	181	32	261
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)			12	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	WB	SB
Directions Served	LT	T	R	LR	
Maximum Queue (ft)	86	154	98	123	
Average Queue (ft)	47	66	48	60	
95th Queue (ft)	74	120	92	101	
Link Distance (ft)	630	358		459	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			75		
Storage Blk Time (%)		4	0		
Queuing Penalty (veh)		5	1		

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	WB	NB	NB
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	47	259	33	155	94
Average Queue (ft)	8	107	1	36	39
95th Queue (ft)	32	200	33	104	77
Link Distance (ft)	358	335	335	503	
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)				76	
Storage Blk Time (%)				4	0
Queuing Penalty (veh)				5	0

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	TR	L	L	T	TR	L	T	TR	L
Maximum Queue (ft)	132	296	196	128	161	192	215	116	144	168	210
Average Queue (ft)	51	124	134	36	82	112	135	42	54	60	138
95th Queue (ft)	108	240	204	89	143	194	216	92	114	128	217
Link Distance (ft)	335	335			175	175	175	736		736	
Upstream Blk Time (%)		0	0	0	0	2	4				
Queuing Penalty (veh)		1		0	1	6	11				
Storage Bay Dist (ft)			170	200			260				200
Storage Blk Time (%)		2	5	0	0						1
Queuing Penalty (veh)		6	8	0	0						5

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	T	TR						
Maximum Queue (ft)	692	713	718	697							
Average Queue (ft)	391	400	410	449							
95th Queue (ft)	714	707	710	740							
Link Distance (ft)	966	966	966	966							
Upstream Blk Time (%)	0	0	0	0							
Queuing Penalty (veh)	1	1	0	1							
Storage Bay Dist (ft)											
Storage Blk Time (%)		24									
Queuing Penalty (veh)		103									

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	WB	WB	WB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	TR						
Maximum Queue (ft)	83	92	112	312	125						
Average Queue (ft)	31	46	30	83	90						
95th Queue (ft)	69	77	77	224	141						
Link Distance (ft)				383	383						
Upstream Blk Time (%)				0							
Queuing Penalty (veh)				0							
Storage Bay Dist (ft)			125		100						
Storage Blk Time (%)			0		6						
Queuing Penalty (veh)			0		2						

Queuing and Blocking Report

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	WB	WB	WB	NB	NB	NB
	T	TR	L	T	T	L	R	
Directions Served								
Maximum Queue (ft)	196	252	122	126	215	276	125	
Average Queue (ft)	74	115	54	28	85	139	31	
95th Queue (ft)	165	215	103	81	177	233	97	
Link Distance (ft)	383	383		242	242	471		
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)			165				100	
Storage Blk Time (%)			0	0			19	0
Queuing Penalty (veh)			0	0			8	0

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	NB	NB	NB	NB	NB
	L	LR	R	L	T	T	T	TR
Directions Served								
Maximum Queue (ft)	88	121	129	194	267	144	756	763
Average Queue (ft)	29	64	60	141	67	34	725	728
95th Queue (ft)	70	107	108	210	186	94	741	746
Link Distance (ft)		392	392		259	259	707	707
Upstream Blk Time (%)				1			63	87
Queuing Penalty (veh)				2			0	0
Storage Bay Dist (ft)	210			170				
Storage Blk Time (%)				5	0			
Queuing Penalty (veh)				8	0			

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	SB	SB	SB	SB	NE	NE	NE
	T	TR	R>	T	T	R	R	L	LT	TR
Directions Served										
Maximum Queue (ft)	131	163	144	665	670	389	305	82	124	108
Average Queue (ft)	35	53	43	404	410	31	12	29	53	31
95th Queue (ft)	94	125	111	675	677	259	158	70	105	83
Link Distance (ft)	268	268	268	716	716	716	716	578	578	
Upstream Blk Time (%)				0	0	0	0			
Queuing Penalty (veh)				2	2	1	0			
Storage Bay Dist (ft)									300	
Storage Blk Time (%)										
Queuing Penalty (veh)										

NDSP Supplemental EIR TIS - Near-Term plus Scenario 1CCC AM

W-Trans

SimTraffic Report

Page 5

Queuing and Blocking Report

12/22/2021

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB
	LTR	LTR	LTR	
Directions Served				
Maximum Queue (ft)	58	95	108	137
Average Queue (ft)	33	52	57	69
95th Queue (ft)	54	84	89	108
Link Distance (ft)		728	960	471
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	NB	NB	SB	SB
	L	R	L	T	T	TR
Directions Served						
Maximum Queue (ft)	78	74	165	277	191	299
Average Queue (ft)	20	29	81	100	30	174
95th Queue (ft)	55	56	144	224	105	338
Link Distance (ft)		728		532	259	259
Upstream Blk Time (%)					5	5
Queuing Penalty (veh)					34	32
Storage Bay Dist (ft)		70		170		
Storage Blk Time (%)		0	0	0	2	
Queuing Penalty (veh)		0	0	1	2	

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
	LT	R	LT	R	L	T	L	TR
Directions Served								
Maximum Queue (ft)	230	75	113	58	176	144	166	218
Average Queue (ft)	89	46	37	9	84	29	71	141
95th Queue (ft)	178	91	86	38	153	87	141	136
Link Distance (ft)		265		304		444	444	578
Upstream Blk Time (%)		0						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)		50		70		170		200
Storage Blk Time (%)		26	3	2	0	1	0	5
Queuing Penalty (veh)		21	4	0	0	1	0	3

NDSP Supplemental EIR TIS - Near-Term plus Scenario 1CCC AM

W-Trans

SimTraffic Report

Page 6

12/22/2021

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	NB	NB	SB	SB	SB	B148	B148	T	T
Directions Served	LT	R	LTR	L	T	TR	UL	T	TR	T	T	T
Maximum Queue (ft)	148	75	42	65	158	173	60	308	309	191	202	
Average Queue (ft)	38	50	11	44	60	89	42	167	165	31	32	
95th Queue (ft)	103	83	36	72	136	170	71	353	359	124	127	
Link Distance (ft)	304		191		145	145		221	221	268	268	
Upstream Blk Time (%)				1	2	2	8	9	0	0	0	
Queuing Penalty (veh)				3	7	7	52	54	0	0	0	
Storage Bay Dist (ft)		50		40			35					
Storage Blk Time (%)		7	12	19	7		14	15				
Queuing Penalty (veh)		10	5	60	7		75	19				

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T	T	T	T	T	T	T
Maximum Queue (ft)	72	59	93	73	132	127						
Average Queue (ft)	30	6	12	40	15	13						
95th Queue (ft)	58	33	53	69	73	67						
Link Distance (ft)	783	506	506		145	145						
Upstream Blk Time (%)				0	0	0						
Queuing Penalty (veh)				0	0	0						
Storage Bay Dist (ft)				50								
Storage Blk Time (%)				4	0	0						
Queuing Penalty (veh)				18	0	0						

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LR	LT	TR									
Maximum Queue (ft)	53	91	7									
Average Queue (ft)	26	17	0									
95th Queue (ft)	50	59	8									
Link Distance (ft)	783	470	960									
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

Zone Summary

Zone wide Queuing Penalty: 910

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L	T	R	L
Maximum Queue (ft)	98	45	69	54	56	174	266	256	78	61	158		
Average Queue (ft)	44	7	27	18	13	118	88	100	8	19	66		
95th Queue (ft)	86	29	52	48	41	178	209	203	50	49	127		
Link Distance (ft)		281			208		412	412			744		
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)	100		95	40		40	150		125	190			
Storage Blk Time (%)	0		0	2	1	1	4	1	4	0	0		
Queuing Penalty (veh)	0		0	1	1	0	23	3	1	0	0		

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R											
Maximum Queue (ft)	151	97											
Average Queue (ft)	44	29											
95th Queue (ft)	104	68											
Link Distance (ft)		744											
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)		140											
Storage Blk Time (%)	0	0											
Queuing Penalty (veh)	0	0											

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	T	TR				
Maximum Queue (ft)	112	126	110	253	270	256	246	225	165				
Average Queue (ft)	64	68	30	86	109	111	89	71	42				
95th Queue (ft)	108	117	76	199	230	218	194	166	108				
Link Distance (ft)	103	103		966	966	284	284	284	284				
Upstream Blk Time (%)	2	2				0	0	0	0				
Queuing Penalty (veh)	5	4				0	1	0	0				
Storage Bay Dist (ft)			150										
Storage Blk Time (%)			0	2									
Queuing Penalty (veh)			0	1									

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	SB	TR
Directions Served	LT	T	R	L	T		
Maximum Queue (ft)	158	25	28	45	243	244	
Average Queue (ft)	107	3	2	9	106	113	
95th Queue (ft)	167	16	13	33	205	210	
Link Distance (ft)	150	259		548	548	548	
Upstream Blk Time (%)	4						
Queuing Penalty (veh)	10						
Storage Bay Dist (ft)			30				
Storage Blk Time (%)		1	1				
Queuing Penalty (veh)		0	0				

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB
Directions Served	T	R	LT	
Maximum Queue (ft)	36	68	550	
Average Queue (ft)	3	21	501	
95th Queue (ft)	37	53	583	
Link Distance (ft)	497	497	494	
Upstream Blk Time (%)			52	
Queuing Penalty (veh)			286	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	207	392	340	19
Average Queue (ft)	71	318	90	3
95th Queue (ft)	165	500	233	15
Link Distance (ft)	207	376	494	196
Upstream Blk Time (%)	3	27	0	
Queuing Penalty (veh)	0	155	1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	264	606	37	219
Average Queue (ft)	99	493	14	97
95th Queue (ft)	209	858	39	209
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	0	33		7
Queuing Penalty (veh)	2	189		0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	72	368	99	115
Average Queue (ft)	40	252	66	29
95th Queue (ft)	63	506	130	90
Link Distance (ft)	630	358		459
Upstream Blk Time (%)		36		
Queuing Penalty (veh)		244		
Storage Bay Dist (ft)			75	
Storage Blk Time (%)		61	0	
Queuing Penalty (veh)		80	1	

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	WB	NB	NB
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	51	280	337	535	101
Average Queue (ft)	4	43	116	399	69
95th Queue (ft)	45	180	369	680	144
Link Distance (ft)	358	335	335	503	
Upstream Blk Time (%)		0	10	55	
Queuing Penalty (veh)		0	24	0	
Storage Bay Dist (ft)					76
Storage Blk Time (%)					63
Queuing Penalty (veh)					285

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	230	317	197	75	116	186	216	285	765	766	212	212	224	212	224
Average Queue (ft)	97	139	117	14	41	73	179	218	703	705	165	165	171	165	171
95th Queue (ft)	202	269	214	53	94	172	207	382	833	839	239	239	252	239	252
Link Distance (ft)	335	335													
Upstream Blk Time (%)	0	1	0	1	0	1	2	32	14	14	15	15			
Queuing Penalty (veh)	1	5	0	1	0	1	4	61	108	115					
Storage Bay Dist (ft)	6	4	0	1	0	1					200	200			
Storage Blk Time (%)	18	10	0	0	0	0					5	11			
Queuing Penalty (veh)									27	91	14	31			

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR	T	TR	T	TR	T	TR	T	TR	T	TR	T
Maximum Queue (ft)	486	355	286	277											
Average Queue (ft)	194	159	117	123											
95th Queue (ft)	463	321	240	230											
Link Distance (ft)	966	966	966	966											
Upstream Blk Time (%)	0	1	0	1	0	1	2	32	14	15					
Queuing Penalty (veh)	0														
Storage Bay Dist (ft)	2														
Storage Blk Time (%)	10														
Queuing Penalty (veh)															

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	T	T	T	T	T	T	TR						
Maximum Queue (ft)	86	86	12	13	391	463	125								
Average Queue (ft)	37	47	0	0	61	392	124								
95th Queue (ft)	74	79	12	13	254	552	131								
Link Distance (ft)			177	177	383	383									
Upstream Blk Time (%)					0	32									
Queuing Penalty (veh)					1	150									
Storage Bay Dist (ft)						100									
Storage Blk Time (%)						2	57								
Queuing Penalty (veh)						11	110								

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	T	TR	L	T	T	T	T	T	T	T	T	T	T	T	T
Maximum Queue (ft)	275	278	133	222	330	149	267	484	125						
Average Queue (ft)	119	120	40	62	236	9	75	331	83						
95th Queue (ft)	217	225	96	191	378	97	286	532	169						
Link Distance (ft)	383	383													
Upstream Blk Time (%)	0	0	0	1	32	3	10								
Queuing Penalty (veh)	0	0	0	2	72	7	68								
Storage Bay Dist (ft)					165										
Storage Blk Time (%)					1										
Queuing Penalty (veh)					0										

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	LR	R	L	T	T	T	T	T	T	T	T	T	T	T
Maximum Queue (ft)	175	192	162	194	268	248	271	270							
Average Queue (ft)	89	109	69	131	132	114	142	127							
95th Queue (ft)	157	176	128	206	280	225	228	231							
Link Distance (ft)		392	392		259	259	707	707							
Upstream Blk Time (%)					2	0									
Queuing Penalty (veh)					15	1									
Storage Bay Dist (ft)	210				170										
Storage Blk Time (%)	0	0	0	6	2										
Queuing Penalty (veh)	0	0	0	28	7										

12/22/2021

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	NB	B148	B148	B148	SB	SB	SB	SB	NE	NE
Directions Served	T	TR	TR	R>	T	T	T	T	T	R	R	L	LT
Maximum Queue (ft)	372	369	372	308	299	302	409	427	76	72	394	418	
Average Queue (ft)	336	337	328	195	189	146	229	240	28	13	157	199	
95th Queue (ft)	377	377	392	353	328	303	453	460	257	161	391	433	
Link Distance (ft)	268	268	268	221	221	221	716	716	716	716	578	578	
Upstream Blk Time (%)	67	69	47	17	15	6	2	2	1	0	1	2	
Queuing Penalty (veh)	356	364	249	90	79	33	7	7	4	0	6	12	
Storage Bay Dist (ft)													
Storage Blk Time (%)													8
Queuing Penalty (veh)													23

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Directions Served	TR												
Maximum Queue (ft)	286												
Average Queue (ft)	158												
95th Queue (ft)	298												
Link Distance (ft)													
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)	300												
Storage Blk Time (%)	2												
Queuing Penalty (veh)	9												

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	LTR	LTR	LTR									
Maximum Queue (ft)	170	183	911	121									
Average Queue (ft)	80	72	589	62									
95th Queue (ft)	153	145	1063	105									
Link Distance (ft)		728	960	471									
Upstream Blk Time (%)			7										
Queuing Penalty (veh)			41										
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

12/22/2021

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB	SB	SB
Directions Served	L	R	R	L	T	T	T	T	T	T	T	T	TR
Maximum Queue (ft)	185	95	153	346	288	235	246						
Average Queue (ft)	74	46	36	168	102	91	96						
95th Queue (ft)	141	96	97	314	244	196	199						
Link Distance (ft)	728			532	532	259	259						
Upstream Blk Time (%)				1	0	0	0						
Queuing Penalty (veh)				0	0	0	0						
Storage Bay Dist (ft)		70	170										
Storage Blk Time (%)		13	0	0	7								
Queuing Penalty (veh)		12	0	0	3								

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	281	75	154	94	195	469	474	134	262	267			
Average Queue (ft)	168	68	65	21	109	311	357	41	105	112			
95th Queue (ft)	300	93	134	68	206	517	529	103	206	221			
Link Distance (ft)	265		304		444	444	444		578	578			
Upstream Blk Time (%)	5				13	19							
Queuing Penalty (veh)	0				0	0							
Storage Bay Dist (ft)		50		70	170			200					
Storage Blk Time (%)	33	15	11	0	2	18		0	1				
Queuing Penalty (veh)	86	30	3	0	7	22		1	1				

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB	SB	B148	B148
Directions Served	LT	R	LTR	L	T	TR	UL	T	TR	T	TR	T	T
Maximum Queue (ft)	242	75	75	65	178	204	60	292	290	148	153		
Average Queue (ft)	71	56	24	36	134	159	42	145	126	39	29		
95th Queue (ft)	184	90	59	74	199	219	72	323	296	186	151		
Link Distance (ft)	304		191		145	145		221	221	268	268		
Upstream Blk Time (%)	2			14	22		17	3	4	0			
Queuing Penalty (veh)	5			85	136		69	14	17	1			
Storage Bay Dist (ft)		50		40			35						
Storage Blk Time (%)	18	14		8	29		42	10					
Queuing Penalty (veh)	29	9		60	20		157	6					

12/22/2021

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	SB	SB	SB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T	T	T
Maximum Queue (ft)	306	413	442	67	116	132		
Average Queue (ft)	117	125	170	26	15	20		
95th Queue (ft)	290	370	421	61	73	78		
Link Distance (ft)	783	506	506		145	145		
Upstream Blk Time (%)	3	5	2	2	0	0		
Queuing Penalty (veh)	0	0	0	8	0	0		
Storage Bay Dist (ft)				50				
Storage Blk Time (%)				6	0			
Queuing Penalty (veh)				24	0			

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	SB	SB	SB	SB	SB	SB
Directions Served	LR	LT	TR					
Maximum Queue (ft)	132	298	37					
Average Queue (ft)	39	101	1					
95th Queue (ft)	111	369	15					
Link Distance (ft)	783	470	960					
Upstream Blk Time (%)		10						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Zone Summary

Zone wide Queuing Penalty: 4481

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	WB	WB	SB	SB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L	T	R	L
Maximum Queue (ft)	107	216	119	47	35	37	170	170	124	35	83	500	
Average Queue (ft)	45	23	72	9	7	5	94	32	50	3	8	193	
95th Queue (ft)	86	111	122	34	28	25	156	102	106	21	50	394	
Link Distance (ft)		281			208			412	412			744	
Upstream Blk Time (%)		0										0	
Queuing Penalty (veh)		0										0	
Storage Bay Dist (ft)	100		95	40		40	150		125	190			
Storage Blk Time (%)	1	0	5	1	0	0	2	0	0	0			
Queuing Penalty (veh)	2	0	4	0	0	0	5	0	0	0			

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R											
Maximum Queue (ft)	611	165											
Average Queue (ft)	242	126											
95th Queue (ft)	500	210											
Link Distance (ft)		744											
Upstream Blk Time (%)		0											
Queuing Penalty (veh)		0											
Storage Bay Dist (ft)		140											
Storage Blk Time (%)		11		3									
Queuing Penalty (veh)		61		18									

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	T	TR				
Maximum Queue (ft)	126	151	106	144	154	306	339	339	277				
Average Queue (ft)	93	100	38	46	52	200	215	203	154				
95th Queue (ft)	125	159	82	110	117	328	353	345	266				
Link Distance (ft)	103	103		966	966	284	284	284	284				
Upstream Blk Time (%)		14				2	3	2	0				
Queuing Penalty (veh)		33		39		10	15	11	1				
Storage Bay Dist (ft)				150									
Storage Blk Time (%)				0		0							
Queuing Penalty (veh)				0		0							

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	NB	B227
	LT	T	R	L	T	TR	T
Directions Served							
Maximum Queue (ft)	83	33	37	24	99	111	3
Average Queue (ft)	29	6	3	2	20	26	0
95th Queue (ft)	66	22	21	15	62	74	3
Link Distance (ft)	150	259		548	548	548	88
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			30				
Storage Blk Time (%)		1	1				
Queuing Penalty (veh)		0	0				

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB
	T	R	LT	
Directions Served				
Maximum Queue (ft)	15	38	547	
Average Queue (ft)	1	6	275	
95th Queue (ft)	9	26	531	
Link Distance (ft)	497	497	494	
Upstream Blk Time (%)			9	
Queuing Penalty (veh)			74	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB
	LTR	LTR	LTR	
Directions Served				
Maximum Queue (ft)	224	296	79	30
Average Queue (ft)	117	140	37	7
95th Queue (ft)	240	283	66	24
Link Distance (ft)	207	376	494	196
Upstream Blk Time (%)	13	0		
Queuing Penalty (veh)	0	2		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
	LTR	LTR	LTR	
Directions Served				
Maximum Queue (ft)	109	213	35	246
Average Queue (ft)	56	99	10	145
95th Queue (ft)	89	185	34	260
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)			10	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
	LT	T	R	LR
Directions Served				
Maximum Queue (ft)	85	150	98	116
Average Queue (ft)	48	67	48	58
95th Queue (ft)	73	118	90	97
Link Distance (ft)	630	358		459
Upstream Blk Time (%)				
Queuing Penalty (veh)			75	
Storage Bay Dist (ft)		4	0	
Storage Blk Time (%)		5	1	
Queuing Penalty (veh)				

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	WB	NB
	TR	L	T	L
Directions Served				
Maximum Queue (ft)	50	242	112	130
Average Queue (ft)	9	100	5	38
95th Queue (ft)	34	195	74	95
Link Distance (ft)	358	335	335	503
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		1	1	
Storage Bay Dist (ft)				76
Storage Blk Time (%)			4	0
Queuing Penalty (veh)			4	0

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	L
Maximum Queue (ft)	115	294	199	150	171	195	212	138	156	160	212	225
Average Queue (ft)	49	121	131	38	85	105	135	56	60	65	135	194
95th Queue (ft)	103	237	201	104	151	188	210	114	126	137	222	272
Link Distance (ft)	335	335			175	175	175		736	736		
Upstream Blk Time (%)	0	0	0	1	2	5						
Queuing Penalty (veh)	1			0	2	4	12					
Storage Bay Dist (ft)			170	200			260				200	200
Storage Blk Time (%)	2	4	0	0	1						1	3
Queuing Penalty (veh)	6	7	0	1							4	13

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR								
Maximum Queue (ft)	659	776	663	714								
Average Queue (ft)	350	382	383	437								
95th Queue (ft)	588	634	611	670								
Link Distance (ft)	966	966	966	966								
Upstream Blk Time (%)	0											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)												
Storage Blk Time (%)	20											
Queuing Penalty (veh)	83											

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	TR							
Maximum Queue (ft)	95	98	87	321	125							
Average Queue (ft)	33	48	26	73	90							
95th Queue (ft)	75	83	66	218	139							
Link Distance (ft)			383	383								
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			1									
Storage Bay Dist (ft)	125	125		100								
Storage Blk Time (%)	0	0		6								
Queuing Penalty (veh)	0	0	2	16								

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	T	TR	L	T	T	T	T	L	T	L	R	R
Maximum Queue (ft)	180	252	125	98	196	261	125	196	261	125	125	125
Average Queue (ft)	69	107	52	23	81	146	33	81	146	33	146	33
95th Queue (ft)	147	203	100	66	164	237	99	66	164	237	99	99
Link Distance (ft)	383	383		242	242	471		242	242	471		
Upstream Blk Time (%)				0				0				
Queuing Penalty (veh)				0				0				
Storage Bay Dist (ft)			165			0				100		
Storage Blk Time (%)			0			21				0		
Queuing Penalty (veh)			0			8				0		

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	EB	NB	NB	NB	NB	NB	NB	NB	SB
Directions Served	L	LR	R	L	T	T	T	T	T	T	T	TR
Maximum Queue (ft)	100	124	123	194	274	188	749	760	760	760	760	760
Average Queue (ft)	33	65	58	141	71	38	725	728	728	728	728	728
95th Queue (ft)	79	107	101	208	203	116	738	747	747	747	747	747
Link Distance (ft)		392	392		259	259	707	707	707	707	707	707
Upstream Blk Time (%)				1	0	0	63	87	87	87	87	87
Queuing Penalty (veh)				3	0	0	0	0	0	0	0	0
Storage Bay Dist (ft)	210			170								
Storage Blk Time (%)				5		0						
Queuing Penalty (veh)				9		0						

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	SB	SB	SB	SB	NE	NE	NE	NE	NE
Directions Served	T	TR	R>	T	T	T	T	L	L	LT	TR	TR
Maximum Queue (ft)	152	169	160	569	558	95	131	100	100	100	100	100
Average Queue (ft)	57	76	52	312	324	33	54	31	31	31	31	31
95th Queue (ft)	131	155	128	539	542	77	109	80	80	80	80	80
Link Distance (ft)		268	268	268	716	716	578	578	578	578	578	578
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)										300		
Storage Blk Time (%)												
Queuing Penalty (veh)												

12/22/2021

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	66	99	104	141
Average Queue (ft)	36	51	57	68
95th Queue (ft)	58	84	87	114
Link Distance (ft)	728	960	471	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	WB	NB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	103	80	184	234
Average Queue (ft)	30	33	86	97
95th Queue (ft)	73	63	154	205
Link Distance (ft)	728	532	532	259
Upstream Blk Time (%)			5	5
Queuing Penalty (veh)			32	31
Storage Bay Dist (ft)	70	170		
Storage Blk Time (%)	2	0	1	1
Queuing Penalty (veh)	2	0	2	1

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	WB	NB	SB
Directions Served	LT	R	LT	R
Maximum Queue (ft)	233	75	101	65
Average Queue (ft)	93	42	35	11
95th Queue (ft)	189	85	79	39
Link Distance (ft)	265	304	444	444
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		50	70	170
Storage Blk Time (%)	26	3	2	0
Queuing Penalty (veh)	20	5	0	1

12/22/2021

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	WB	NB	SB
Directions Served	LT	R	LT	TR
Maximum Queue (ft)	131	75	44	65
Average Queue (ft)	38	50	12	42
95th Queue (ft)	100	84	36	73
Link Distance (ft)	304	191	145	145
Upstream Blk Time (%)	0	1	7	8
Queuing Penalty (veh)			40	47
Storage Bay Dist (ft)	50		35	
Storage Blk Time (%)	7	11	18	5
Queuing Penalty (veh)	9	4	40	5

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	SB	SB
Directions Served	LR	T	TR	T
Maximum Queue (ft)	71	37	55	71
Average Queue (ft)	28	3	6	35
95th Queue (ft)	57	20	31	68
Link Distance (ft)	783	506	506	145
Upstream Blk Time (%)			0	0
Queuing Penalty (veh)			0	0
Storage Bay Dist (ft)			50	
Storage Blk Time (%)			2	0
Queuing Penalty (veh)			11	1

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	SB	SB
Directions Served	LR	LT	TR	
Maximum Queue (ft)	56	74	16	
Average Queue (ft)	26	16	1	
95th Queue (ft)	52	52	14	
Link Distance (ft)	783	470	960	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 744

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
	L	T	R	L	T	R	L	T	R	L	T
Directions Served											
Maximum Queue (ft)	99	43	73	54	65	61	173	239	233	92	79
Average Queue (ft)	41	8	28	22	14	19	112	82	92	7	19
95th Queue (ft)	80	30	53	54	45	51	174	193	185	42	52
Link Distance (ft)											
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100		95	40		40	150			125	190
Storage Blk Time (%)	0		0	4		2	1	3	1	3	0
Queuing Penalty (veh)	0		0	2		1	0	17	2	1	0

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
	T	R									
Directions Served											
Maximum Queue (ft)	166	117									
Average Queue (ft)	46	30									
95th Queue (ft)	111	75									
Link Distance (ft)											
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)	0	0									
Queuing Penalty (veh)	1	0									

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB
	LTR	R	UL	T	TR	T	T	T	TR		
Directions Served											
Maximum Queue (ft)	114	131	128	224	259	273	285	286	165		
Average Queue (ft)	68	68	33	77	98	126	101	76	44		
95th Queue (ft)	109	116	81	178	211	251	231	198	127		
Link Distance (ft)	103	103		966	966	284	284	284	284		
Upstream Blk Time (%)	3	4				1	1	1	0		
Queuing Penalty (veh)	6	7				5	6	5	1		
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	NB	NB	B227	B227	B227	B227
	LT	T	R	L	T	TR	T	T	T	T	T
Directions Served											
Maximum Queue (ft)	162	23	31	54	245	241	3	2	3	2	2
Average Queue (ft)	110	3	2	11	105	109	0	0	0	0	0
95th Queue (ft)	168	15	15	38	203	204	3	2	3	2	2
Link Distance (ft)	150	259		548	548	548	88	88	88	88	88
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB
	T	R	LT								
Directions Served											
Maximum Queue (ft)	15	37	518								
Average Queue (ft)	1	7	304								
95th Queue (ft)	8	26	528								
Link Distance (ft)	497	497	494								
Upstream Blk Time (%)			7								
Queuing Penalty (veh)			33								
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB
	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Directions Served											
Maximum Queue (ft)	106	243	206	21							
Average Queue (ft)	38	86	72	3							
95th Queue (ft)	83	222	139	15							
Link Distance (ft)	207	376	494	196							
Upstream Blk Time (%)	0	1									
Queuing Penalty (veh)	0	6									
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	247	300	33	122
Average Queue (ft)	103	118	13	47
95th Queue (ft)	193	258	38	96
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	0	0	0	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	87	102	83	53
Average Queue (ft)	42	54	36	22
95th Queue (ft)	72	84	61	40
Link Distance (ft)	630	358		459
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			75	
Storage Blk Time (%)		1	0	
Queuing Penalty (veh)		2	0	

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	NB	NB
Directions Served	TR	L	R	
Maximum Queue (ft)	80	63	516	101
Average Queue (ft)	7	21	223	94
95th Queue (ft)	76	54	481	117
Link Distance (ft)	358	335	503	
Upstream Blk Time (%)	1		7	
Queuing Penalty (veh)	1		0	
Storage Bay Dist (ft)				76
Storage Blk Time (%)			29	15
Queuing Penalty (veh)			131	45

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	TR	L	TR	WB	NB	NB	T	TR	NB	NB	SB
Directions Served	L	TR	L	WB	WB	WB	WB	TR	L	TR	WB	NB	NB	T	TR	NB	NB	L
Maximum Queue (ft)	254	310	199	81	129	189	216	189	216	285	764	760	760	212	224	224	224	224
Average Queue (ft)	127	172	143	23	56	78	176	161	176	161	725	725	725	173	185	185	185	185
95th Queue (ft)	220	289	216	81	137	174	226	365	804	799	736	736	736	243	261	261	261	261
Link Distance (ft)	335	335			175	175	175	275	736	736	736	736	736					
Upstream Blk Time (%)	0	2	0	0	9	2	28	18	19									
Queueing Penalty (veh)	0	6	0	17	4	54												
Storage Bay Dist (ft)			170	200			260									200		200
Storage Blk Time (%)	8	5	0	9			0	69	8							14		14
Queueing Penalty (veh)	25	13	0	5			0	68	22							22		22

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	T	SB	T	SB	TR
Directions Served						
Maximum Queue (ft)	591	509	387	343		
Average Queue (ft)	243	200	149	147		
95th Queue (ft)	582	495	414	396		
Link Distance (ft)	966	966	966	966		
Upstream Blk Time (%)	2	1	1	1		
Queueing Penalty (veh)	7	6	4	4		
Storage Bay Dist (ft)						
Storage Blk Time (%)	6					
Queueing Penalty (veh)	28					

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	T	WB	WB	WB	TR
Directions Served	L	L	L	T	T	T	T	
Maximum Queue (ft)	108	104	33	399	460	125		
Average Queue (ft)	41	52	1	84	394	121		
95th Queue (ft)	84	86	33	309	541	152		
Link Distance (ft)			177	383	383			
Upstream Blk Time (%)			0	4	32			
Queueing Penalty (veh)			0	19	147			
Storage Bay Dist (ft)	125	125				100		
Storage Blk Time (%)	0	0				1	55	
Queueing Penalty (veh)	0	0				5	105	

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	WB	WB	WB	WB	B234	B234	NB	NB	R	NE
Directions Served	T	TR	L	T	T	T	T	T	L	R		L
Maximum Queue (ft)	272	300	159	252	336	213	308	483	125			477
Average Queue (ft)	140	140	43	67	240	16	87	328	81			239
95th Queue (ft)	241	249	99	198	388	131	301	536	169			546
Link Distance (ft)	383	383		242	242	392	392	471				578
Upstream Blk Time (%)	0	0	0	2	37	0	3	10				7
Queuing Penalty (veh)	0	0	4	4	82	0	8	72				33
Storage Bay Dist (ft)			165						100			18
Storage Blk Time (%)			0	3					51			51
Queuing Penalty (veh)			0	1					62			1

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	NE
Directions Served	L	LR	R	L	T	T	T	T	TR		
Maximum Queue (ft)	191	207	155	194	278	260	265	275			
Average Queue (ft)	98	118	73	136	142	114	142	123			
95th Queue (ft)	163	187	134	214	273	233	228	229			
Link Distance (ft)		392	392	259	259	707	707				
Upstream Blk Time (%)				4	0						
Queuing Penalty (veh)				26	2						
Storage Bay Dist (ft)	210			170							
Storage Blk Time (%)	0	0	8	8	2						
Queuing Penalty (veh)	0	0	41	7							

12/22/2021

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	NB	NB	NB	B148	B148	SB	SB	SB	SB	NE
Directions Served	T	TR	R>	T	T	T	T	T	T	T	R	R	L
Maximum Queue (ft)	374	371	361	314	313	308	513	528	324	274	460	477	
Average Queue (ft)	342	340	318	246	234	200	282	290	94	33	205	239	
95th Queue (ft)	365	360	409	372	347	337	655	666	482	260	524	546	
Link Distance (ft)	268	268	268	221	221	221	716	716	716	716	578	578	
Upstream Blk Time (%)	82	81	48	35	30	12	7	8	2	0	3	7	
Queuing Penalty (veh)	449	446	262	190	164	67	24	27	7	0	16	33	
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Directions Served	TR												
Maximum Queue (ft)	299												
Average Queue (ft)	171												
95th Queue (ft)	347												
Link Distance (ft)													
Upstream Blk Time (%)													
Queuing Penalty (veh)	300												
Storage Bay Dist (ft)	1												
Storage Blk Time (%)	7												
Queuing Penalty (veh)													

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Maximum Queue (ft)	158	210	829	154									
Average Queue (ft)	69	73	472	66									
95th Queue (ft)	129	159	972	116									
Link Distance (ft)		728	960	471									
Upstream Blk Time (%)			5										
Queuing Penalty (veh)			28										
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

Queuing and Blocking Report

12/22/2021

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	WB	NB	NB	SB	SB	SB	SB
	L	R	L	T	T	T	T	TR	TR
Directions Served									
Maximum Queue (ft)	152	95	150	380	310	227	225		
Average Queue (ft)	63	37	36	174	109	95	101		
95th Queue (ft)	121	82	99	355	289	198	198		
Link Distance (ft)	728			532	532	239	239		
Upstream Blk Time (%)				3	0	0	0		
Queuing Penalty (veh)				0	0	0	0		
Storage Bay Dist (ft)	70	170							
Storage Blk Time (%)	9	0		9					
Queuing Penalty (veh)	7	0		3					

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
	LT	R	LT	R	L	T	TR	L	T	TR	TR
Directions Served											
Maximum Queue (ft)	293	75	157	81	195	480	464	144	221	228	
Average Queue (ft)	181	68	60	18	106	349	369	45	99	102	
95th Queue (ft)	314	92	120	58	213	551	545	109	194	201	
Link Distance (ft)	265		304			444	444		578	578	
Upstream Blk Time (%)	14					27	36				
Queuing Penalty (veh)	0					0	0				
Storage Bay Dist (ft)		50		70	170			200			
Storage Blk Time (%)	39	17	8	0	1	24		0	1		
Queuing Penalty (veh)	103	34	2	0	4	31		0	0		

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	B148	B148
	LT	R	L	TR	L	T	TR	UL	T	TR	T
Directions Served											
Maximum Queue (ft)	236	75	72	64	191	208	60	309	307	298	301
Average Queue (ft)	85	57	24	39	154	173	52	229	171	117	67
95th Queue (ft)	226	92	61	76	198	213	71	383	350	327	241
Link Distance (ft)	304		191		145	145		221	221	268	268
Upstream Blk Time (%)	4				31	39		47	7	17	1
Queuing Penalty (veh)	11				195	247		197	28	69	3
Storage Bay Dist (ft)		50		40			35				
Storage Blk Time (%)	23	18		9	48		79	7			
Queuing Penalty (veh)	37	11		71	32		297	5			

Queuing and Blocking Report

12/22/2021

Intersection: 18: N.Main St. & Central Rd

Movement	WB	WB	NB	NB	SB	SB	SB	SB
	LR	T	TR	L	T	T	T	T
Directions Served								
Maximum Queue (ft)	420	501	524	65	82	85		
Average Queue (ft)	209	261	299	20	7	16		
95th Queue (ft)	450	576	599	56	40	57		
Link Distance (ft)	783	506	506		145	145		
Upstream Blk Time (%)		14	19		0	0		
Queuing Penalty (veh)		0	0		1	1		
Storage Bay Dist (ft)				50				
Storage Blk Time (%)				5	0			
Queuing Penalty (veh)				19	0			

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	SB	SB
	LR	LT	TR	TR
Directions Served				
Maximum Queue (ft)	138	283	22	
Average Queue (ft)	41	69	1	
95th Queue (ft)	148	289	11	
Link Distance (ft)	783	470	960	
Upstream Blk Time (%)		6		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 4618

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L	T	R
Maximum Queue (ft)	112	158	120	43	41	34	164	146	129	26	46	503
Average Queue (ft)	48	18	76	9	8	5	89	31	44	2	5	178
95th Queue (ft)	94	95	125	33	31	24	150	99	96	14	29	355
Link Distance (ft)	281											
Upstream Blk Time (%)	208											
Queuing Penalty (veh)	412											
Storage Bay Dist (ft)	100	95	40	40	150	40	150	40	125	190	0	0
Storage Blk Time (%)	1	6	1	1	0	2	0	0	0	0	4	4
Queuing Penalty (veh)	2	5	0	0	0	5	0	0	0	0	0	0

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R										
Maximum Queue (ft)	590	165										
Average Queue (ft)	211	120										
95th Queue (ft)	447	205										
Link Distance (ft)	744											
Upstream Blk Time (%)	0											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)	9	140										
Storage Blk Time (%)	9	2										
Queuing Penalty (veh)	53	14										

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	T	TR			
Maximum Queue (ft)	127	149	93	134	144	304	335	331	275			
Average Queue (ft)	93	99	38	42	51	192	204	194	149			
95th Queue (ft)	124	157	79	101	109	322	349	344	272			
Link Distance (ft)	103	103	966	966	966	284	284	284	284			
Upstream Blk Time (%)	14	15				1	2	2	0			
Queuing Penalty (veh)	34	36				8	13	9	0			
Storage Bay Dist (ft)			150									
Storage Blk Time (%)			0									
Queuing Penalty (veh)			0									

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	NB	NB	NB	NB	NB	NB	NB
Directions Served	LT	T	R	L	T	TR						
Maximum Queue (ft)	86	31	36	25	80	101						
Average Queue (ft)	33	5	4	3	20	27						
95th Queue (ft)	67	21	22	15	58	71						
Link Distance (ft)	150	259			548	548						
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			30									
Storage Blk Time (%)		1	0									
Queuing Penalty (veh)		0	0									

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R	LT									
Maximum Queue (ft)	4	39	552									
Average Queue (ft)	0	6	319									
95th Queue (ft)	3	26	582									
Link Distance (ft)	497	497	494									
Upstream Blk Time (%)			15									
Queuing Penalty (veh)			128									
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	LTR	LTR	LTR	LTR							
Maximum Queue (ft)	233	384	91	28								
Average Queue (ft)	124	163	38	6								
95th Queue (ft)	245	343	69	23								
Link Distance (ft)	207	376	494	196								
Upstream Blk Time (%)	14	1										
Queuing Penalty (veh)	0	9										
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	123	241	33	262
Average Queue (ft)	57	104	10	157
95th Queue (ft)	96	195	33	274
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)				16
Queueing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queueing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	NB	SB
Directions Served	LT	T	R	LR	
Maximum Queue (ft)	92	178	100	122	
Average Queue (ft)	50	67	47	58	
95th Queue (ft)	77	119	89	98	
Link Distance (ft)	630	358		459	
Upstream Blk Time (%)					
Queueing Penalty (veh)					
Storage Bay Dist (ft)			75		
Storage Blk Time (%)		4	0		
Queueing Penalty (veh)		5	1		

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	NB	NB	SB
Directions Served	TR	L	L	R	
Maximum Queue (ft)	53	248	131	96	
Average Queue (ft)	8	102	38	40	
95th Queue (ft)	34	193	106	77	
Link Distance (ft)	358	335	503		
Upstream Blk Time (%)					
Queueing Penalty (veh)					
Storage Bay Dist (ft)				76	
Storage Blk Time (%)			3	0	
Queueing Penalty (veh)			4	0	

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	L
Maximum Queue (ft)	119	281	200	110	155	195	205	119	145	162	208
Average Queue (ft)	48	115	127	32	107	132	132	45	59	63	125
95th Queue (ft)	97	218	188	83	139	189	205	97	121	132	203
Link Distance (ft)	335	335		175	175	175	175	736			736
Upstream Blk Time (%)		0	0	0	2	4					
Queueing Penalty (veh)		0		0	5	10					
Storage Bay Dist (ft)			170	200			260				200
Storage Blk Time (%)		1	4		0						1
Queueing Penalty (veh)		4	7		0						2

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR							
Maximum Queue (ft)	570	616	583	625							
Average Queue (ft)	327	348	361	411							
95th Queue (ft)	582	606	593	636							
Link Distance (ft)	966	966	966	966							
Upstream Blk Time (%)	0	0	0	0							
Queueing Penalty (veh)	0	1	1	2							
Storage Bay Dist (ft)											
Storage Blk Time (%)		20									
Queueing Penalty (veh)		82									

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	WB	WB	WB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	TR							
Maximum Queue (ft)	99	96	118	323	125						
Average Queue (ft)	30	46	27	72	89						
95th Queue (ft)	70	78	78	206	140						
Link Distance (ft)			383	383							
Upstream Blk Time (%)				0							
Queueing Penalty (veh)				0							
Storage Bay Dist (ft)			125		100						
Storage Blk Time (%)		0	0		6						
Queueing Penalty (veh)		0	0		2						

Queuing and Blocking Report

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	WB	WB	WB	NB	NB	NB
	T	TR	L	T	T	L	R	
Directions Served	175	234	131	106	216	260	125	
Maximum Queue (ft)	67	104	55	25	80	144	37	
Average Queue (ft)	141	203	101	75	171	231	108	
95th Queue (ft)	383	383		242	242	471		
Link Distance (ft)								
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)			165				100	
Storage Blk Time (%)			0	0		20	0	
Queuing Penalty (veh)			0	0		8	0	

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	NB	NB	NB	NB	NB
	L	LR	R	L	T	T	T	TR
Directions Served	96	121	127	194	275	161	751	760
Maximum Queue (ft)	33	66	63	139	76	37	725	725
Average Queue (ft)	74	108	110	207	212	107	749	749
95th Queue (ft)	392	392	392	259	259	707	707	
Link Distance (ft)								
Upstream Blk Time (%)				1	0	60	85	
Queuing Penalty (veh)				3	0	0	0	
Storage Bay Dist (ft)	210			170				
Storage Blk Time (%)			5	0				
Queuing Penalty (veh)			9	0				

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	SB	SB	SB	SB	NE	NE	NE
	T	TR	R>	T	T	R	R	L	LT	TR
Directions Served	138	168	140	538	553	69	29	87	111	98
Maximum Queue (ft)	45	63	40	296	310	5	1	29	48	30
Average Queue (ft)	110	135	108	519	531	97	29	69	96	78
95th Queue (ft)	268	268	268	716	716	716	716	578	578	
Link Distance (ft)										
Upstream Blk Time (%)				0	0					
Queuing Penalty (veh)				1	1					
Storage Bay Dist (ft)									300	
Storage Blk Time (%)										
Queuing Penalty (veh)										

Queuing and Blocking Report

12/22/2021

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB
	LTR	LTR	LTR	
Directions Served	58	103	109	128
Maximum Queue (ft)	35	50	59	65
Average Queue (ft)	57	82	91	103
95th Queue (ft)		728	960	471
Link Distance (ft)				
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	NB	NB	SB	SB
	L	R	L	T	T	TR
Directions Served	86	83	187	259	135	294
Maximum Queue (ft)	26	33	88	95	25	160
Average Queue (ft)	66	65	150	210	80	321
95th Queue (ft)	728		532	532	259	259
Link Distance (ft)						
Upstream Blk Time (%)					3	4
Queuing Penalty (veh)					22	23
Storage Bay Dist (ft)	70	170				
Storage Blk Time (%)	1	0	0	1		
Queuing Penalty (veh)	1	0	1	2		

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
	LT	R	LT	R	L	T	L	TR
Directions Served	205	75	103	49	157	130	176	318
Maximum Queue (ft)	89	45	33	9	84	25	66	156
Average Queue (ft)	169	89	78	33	146	75	137	289
95th Queue (ft)	265		304		444	444	578	578
Link Distance (ft)								
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)	50		70	170			200	
Storage Blk Time (%)	27	3	2	0	1	0		6
Queuing Penalty (veh)	21	4	0	0	1	0		4

12/22/2021

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	NB	NB	SB	SB	SB	B148	B148
Directions Served	LT	R	LTR	L	TR	UL	T	TR	T	T
Maximum Queue (ft)	133	75	47	65	149	138	59	296	304	173
Average Queue (ft)	32	47	10	40	43	52	20	136	144	17
95th Queue (ft)	88	79	35	71	114	116	53	315	328	90
Link Distance (ft)	304		191		145	145		221	221	268
Upstream Blk Time (%)				0	0	0	5	6	0	0
Queuing Penalty (veh)				1	1	1	31	38	0	0
Storage Bay Dist (ft)		50		40		35				
Storage Blk Time (%)	6	9		17	4		2	15		
Queuing Penalty (veh)	8	4		34	4		9	7		

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T			
Maximum Queue (ft)	55	38	50	70	113	112			
Average Queue (ft)	28	2	4	32	11	10			
95th Queue (ft)	52	18	26	65	62	58			
Link Distance (ft)	783	506	506		145	145			
Upstream Blk Time (%)				0	0	0			
Queuing Penalty (veh)				0	0	0			
Storage Bay Dist (ft)				50					
Storage Blk Time (%)				2	0				
Queuing Penalty (veh)				10	0				

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LR	LT	TR						
Maximum Queue (ft)	62	99	28						
Average Queue (ft)	26	17	1						
95th Queue (ft)	54	60	16						
Link Distance (ft)	783	470	960						
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Zone Summary

Zone wide Queuing Penalty: 713

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L
Maximum Queue (ft)	100	60	68	54	82	56	173	258	238	102
Average Queue (ft)	43	11	29	17	16	19	112	79	88	8
95th Queue (ft)	85	74	58	47	56	50	172	190	180	50
Link Distance (ft)		281		208		412		412		744
Upstream Blk Time (%)		1		0		0		1		1
Queuing Penalty (veh)		0		0		0		0		0
Storage Bay Dist (ft)	100		95	40		40		150		125
Storage Blk Time (%)	1		2	3		2		1		4
Queuing Penalty (veh)	1		1	1		1		18		1

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R								
Maximum Queue (ft)	204	112								
Average Queue (ft)	56	30								
95th Queue (ft)	210	76								
Link Distance (ft)		744								
Upstream Blk Time (%)		1								
Queuing Penalty (veh)		0								
Storage Bay Dist (ft)		140								
Storage Blk Time (%)		2								
Queuing Penalty (veh)		4								

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	T	TR	
Maximum Queue (ft)	114	131	118	244	268	266	267	228	160	
Average Queue (ft)	65	32	84	104	124	98	74	41	41	
95th Queue (ft)	111	117	80	196	224	246	213	182	111	
Link Distance (ft)	103	103		966	966	284	284	284	284	
Upstream Blk Time (%)		5		4		3	0	3	0	
Queuing Penalty (veh)		9		9		12	1	11	0	
Storage Bay Dist (ft)				150						
Storage Blk Time (%)				0		2				
Queuing Penalty (veh)				0		1				

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	TR	NB	B227
Directions Served	LT	T	R	L	T	TR	T	T
Maximum Queue (ft)	158	23	30	68	251	251	3	3
Average Queue (ft)	113	3	1	12	109	116	0	0
95th Queue (ft)	173	14	11	42	208	217	3	3
Link Distance (ft)	150	259		548	548	548	88	
Upstream Blk Time (%)	5							
Queuing Penalty (veh)	12							
Storage Bay Dist (ft)			30					
Storage Blk Time (%)		0	1					
Queuing Penalty (veh)		0	0					

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB
Directions Served	T	R	LT	
Maximum Queue (ft)	9	37	509	
Average Queue (ft)	0	6	306	
95th Queue (ft)	6	24	546	
Link Distance (ft)	497	497	494	
Upstream Blk Time (%)		6		
Queuing Penalty (veh)		32		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	96	235	212	21
Average Queue (ft)	36	84	75	3
95th Queue (ft)	70	204	152	16
Link Distance (ft)	207	376	494	196
Upstream Blk Time (%)	0	1		
Queuing Penalty (veh)	0	3		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	264	278	40	113
Average Queue (ft)	104	124	14	46
95th Queue (ft)	202	297	40	88
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	1	0	0	0
Queuing Penalty (veh)	4	2		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	122	143	93	82
Average Queue (ft)	52	61	37	27
95th Queue (ft)	178	118	71	83
Link Distance (ft)	630	358		459
Upstream Blk Time (%)	1	0		
Queuing Penalty (veh)	3	0		
Storage Bay Dist (ft)			75	
Storage Blk Time (%)		3	0	
Queuing Penalty (veh)		4	0	

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	67	73	504	101
Average Queue (ft)	14	23	215	94
95th Queue (ft)	115	57	472	117
Link Distance (ft)	358	335	503	
Upstream Blk Time (%)	2		8	
Queuing Penalty (veh)	7	0		
Storage Bay Dist (ft)			76	
Storage Blk Time (%)			26	18
Queuing Penalty (veh)			116	54

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB	TR	SB	SB
Directions Served	L	T	TR	L	L	L	T	TR	L	L	T	TR	L	L
Maximum Queue (ft)	263	326	195	76	106	197	217	285	765	769	212	212	224	224
Average Queue (ft)	125	175	147	20	47	81	175	168	720	723	168	178	178	178
95th Queue (ft)	228	298	214	75	112	179	227	372	849	842	253	268	268	268
Link Distance (ft)	335	335			175	175	175	736	736	736				
Upstream Blk Time (%)	0	4		0	5	2	29	20	20	20				
Queuing Penalty (veh)	0	14		0	9	5	54	142	148					
Storage Bay Dist (ft)				170	200			260			200	200		
Storage Blk Time (%)	9	7		0	5			0	68		7	15		
Queuing Penalty (veh)	30	17		0	2			0	64		20	45		

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR
Directions Served	T	T	T	T	T	T	T	T	T	T	T	T	T	T
Maximum Queue (ft)	528	560	306	304										
Average Queue (ft)	237	195	139	141										
95th Queue (ft)	573	496	383	362										
Link Distance (ft)	966	966	966	966										
Upstream Blk Time (%)	2	2	2	2										
Queuing Penalty (veh)	11	10	8											
Storage Bay Dist (ft)														
Storage Blk Time (%)	4													
Queuing Penalty (veh)	19													

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	T	T	T	T	T	T	T	T	T	T
Maximum Queue (ft)	93	82	5	5	367	456	125							
Average Queue (ft)	42	48	0	0	70	368	120							
95th Queue (ft)	80	77	5	5	284	572	154							
Link Distance (ft)			177	177	383	383								
Upstream Blk Time (%)					3	28								
Queuing Penalty (veh)					14	130								
Storage Bay Dist (ft)							100							
Storage Blk Time (%)							0							
Queuing Penalty (veh)							2							

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	B234	B234	T	NB	NB
Directions Served	T	TR	L	L	L	L	T	T	T	T	T	T	L	R
Maximum Queue (ft)	280	296	142	242	327	176	309	481	125					
Average Queue (ft)	131	129	40	69	233	19	100	311	77					
95th Queue (ft)	231	228	97	203	391	145	326	525	164					
Link Distance (ft)	383	383		242	242	392	392	471						
Upstream Blk Time (%)	0	0	0	3	39	0	3	9						
Queuing Penalty (veh)	0	0	0	6	86	0	6	64						
Storage Bay Dist (ft)				165										
Storage Blk Time (%)				0	2			48						
Queuing Penalty (veh)				0	1			58						

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	EB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LR	R	L	L	T	T	T	T	T	T	T	TR	TR
Maximum Queue (ft)	212	224	156	194	276	252	312	283						
Average Queue (ft)	101	117	72	131	132	111	148	130						
95th Queue (ft)	178	192	133	206	288	220	276	274						
Link Distance (ft)		392	392		259	259	707	707						
Upstream Blk Time (%)					2	0	1	1						
Queuing Penalty (veh)					11	1	0	0						
Storage Bay Dist (ft)					170									
Storage Blk Time (%)					0	0	5	2						
Queuing Penalty (veh)					0	1	25	6						

12/22/2021

Intersection: 13: California Blvd./Lawrence Way & N Main St. & Pine St.

Movement	NB	NB	NB	NB	B148	B148	B148	SB	SB	SB	SB	NE	NE
Directions Served	T	TR	TR	R>	T	T	T	T	T	R	R	L	LT
Maximum Queue (ft)	369	375	367	310	304	305	592	603	320	188	463	515	
Average Queue (ft)	343	343	319	246	234	203	294	302	47	20	211	249	
95th Queue (ft)	359	361	412	367	338	333	620	622	326	201	511	553	
Link Distance (ft)	268	268	268	221	221	221	716	716	716	716	578	578	
Upstream Blk Time (%)	81	82	49	36	33	14	5	6	1	0	3	6	
Queuing Penalty (veh)	444	449	267	198	182	76	17	20	3	0	15	29	
Storage Bay Dist (ft)													
Storage Blk Time (%)													17
Queuing Penalty (veh)													49

Intersection: 13: California Blvd./Lawrence Way & N Main St. & Pine St.

Movement	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Directions Served	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR
Maximum Queue (ft)	311	311	311	311	311	311	311	311	311	311	311	311	311
Average Queue (ft)	175	175	175	175	175	175	175	175	175	175	175	175	175
95th Queue (ft)	350	350	350	350	350	350	350	350	350	350	350	350	350
Link Distance (ft)													
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)	300	300	300	300	300	300	300	300	300	300	300	300	300
Storage Blk Time (%)	4	4	4	4	4	4	4	4	4	4	4	4	4
Queuing Penalty (veh)	17	17	17	17	17	17	17	17	17	17	17	17	17

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Maximum Queue (ft)	165	180	844	129	129	129	129	129	129	129	129	129	129
Average Queue (ft)	68	69	483	61	61	61	61	61	61	61	61	61	61
95th Queue (ft)	128	153	1021	104	104	104	104	104	104	104	104	104	104
Link Distance (ft)			728	960	471	471	471	471	471	471	471	471	471
Upstream Blk Time (%)			5	5	5	5	5	5	5	5	5	5	5
Queuing Penalty (veh)			25	25	25	25	25	25	25	25	25	25	25
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

12/22/2021

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB	SB	SB
Directions Served	L	R	R	L	T	T	T	T	T	T	T	T	TR
Maximum Queue (ft)	172	95	128	344	297	242	245	245	245	245	245	245	245
Average Queue (ft)	64	34	35	165	99	94	102	102	102	102	102	102	102
95th Queue (ft)	130	80	96	294	221	207	208	208	208	208	208	208	208
Link Distance (ft)				532	532	259	259	259	259	259	259	259	259
Upstream Blk Time (%)				1	0	0	0	0	0	0	0	0	0
Queuing Penalty (veh)				0	0	1	1	1	1	1	1	1	1
Storage Bay Dist (ft)				70	170	170	170	170	170	170	170	170	170
Storage Blk Time (%)				10	0	7	7	7	7	7	7	7	7
Queuing Penalty (veh)				7	0	3	3	3	3	3	3	3	3

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	T	TR	L	T	TR	TR
Maximum Queue (ft)	301	75	150	89	195	478	478	180	239	239	239	239	239
Average Queue (ft)	182	66	60	18	111	362	395	54	102	106	106	106	106
95th Queue (ft)	315	98	122	60	216	561	546	134	203	213	213	213	213
Link Distance (ft)				304	444	444	444	444	444	444	444	444	444
Upstream Blk Time (%)				15	28	28	38	38	38	38	38	38	38
Queuing Penalty (veh)				0	0	0	0	0	0	0	0	0	0
Storage Bay Dist (ft)				50	70	170	170	170	170	170	170	170	170
Storage Blk Time (%)				40	15	8	0	2	28	1	1	1	1
Queuing Penalty (veh)				104	31	2	0	8	35	4	0	0	0

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B148
Directions Served	LT	R	LTR	L	T	TR	UL	T	TR	T	TR	T	T
Maximum Queue (ft)	299	75	87	64	188	213	60	305	302	302	302	284	284
Average Queue (ft)	110	58	30	39	155	174	52	236	171	132	132	89	89
95th Queue (ft)	274	96	76	79	195	217	71	386	357	346	274	274	274
Link Distance (ft)				191	145	145	221	221	221	268	268	268	268
Upstream Blk Time (%)				7	0	31	40	52	7	18	18	1	1
Queuing Penalty (veh)				17	0	195	253	216	28	75	3	3	3
Storage Bay Dist (ft)				50	40	40	35	35	79	6	6	6	6
Storage Blk Time (%)				31	19	10	45	79	6	6	6	6	6
Queuing Penalty (veh)				49	12	81	30	295	5	5	5	5	5

12/22/2021

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	SB	SB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T	T
Maximum Queue (ft)	385	527	538	70	123	112	
Average Queue (ft)	195	265	307	25	15	21	
95th Queue (ft)	409	589	609	63	72	78	
Link Distance (ft)	783	506	506		145	145	
Upstream Blk Time (%)	17	22	0	0	0	0	
Queuing Penalty (veh)	0	0	0	2	2	0	
Storage Bay Dist (ft)				50			
Storage Blk Time (%)				8	0		
Queuing Penalty (veh)				31	0		

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	SB	SB	SB	SB	SB
Directions Served	LR	LT	TR				
Maximum Queue (ft)	92	268	15				
Average Queue (ft)	30	60	1				
95th Queue (ft)	71	242	8				
Link Distance (ft)	783	470	960				
Upstream Blk Time (%)		2					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Zone Summary

Zone wide Queuing Penalty: 4698

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L	T	R	L
Maximum Queue (ft)	117	184	120	48	43	41	156	106	122	27	64	532	
Average Queue (ft)	53	21	70	9	8	6	88	28	45	3	7	196	
95th Queue (ft)	99	104	119	35	30	27	146	81	102	15	44	388	
Link Distance (ft)		281			208			412	412			744	
Upstream Blk Time (%)		0										0	
Queuing Penalty (veh)		0										0	
Storage Bay Dist (ft)	100		95	40		40	150			125	190		
Storage Blk Time (%)	1		5	1	1	0	1	0	0	0			
Queuing Penalty (veh)	3		5	0	0	0	2	0	0	0			

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R											
Maximum Queue (ft)	593	165											
Average Queue (ft)	231	127											
95th Queue (ft)	488	206											
Link Distance (ft)		744											
Upstream Blk Time (%)		0											
Queuing Penalty (veh)		0											
Storage Bay Dist (ft)		140											
Storage Blk Time (%)		9		3									
Queuing Penalty (veh)		55		19									

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	T	TR				
Maximum Queue (ft)	121	147	95	126	144	310	338	336	280				
Average Queue (ft)	88	94	34	47	56	210	215	204	157				
95th Queue (ft)	121	157	74	106	116	334	356	350	276				
Link Distance (ft)	103	103		966	966	284	284	284	284				
Upstream Blk Time (%)	10	12				2	3	2	0				
Queuing Penalty (veh)	23	28				13	19	13	1				
Storage Bay Dist (ft)				150									
Storage Blk Time (%)						0							
Queuing Penalty (veh)						0							

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	SB	TR
Directions Served	LT	T	R	L	T		
Maximum Queue (ft)	106	37	36	26	131	127	
Average Queue (ft)	38	5	3	2	29	36	
95th Queue (ft)	82	23	20	13	88	99	
Link Distance (ft)	150	259		548	548	548	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			30				
Storage Blk Time (%)		1	1				
Queuing Penalty (veh)		0	0				

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB
Directions Served	T	R	LT	
Maximum Queue (ft)	4	49	559	
Average Queue (ft)	0	10	518	
95th Queue (ft)	3	33	591	
Link Distance (ft)	432	432	494	
Upstream Blk Time (%)		58		
Queuing Penalty (veh)		479		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	239	394	244	23
Average Queue (ft)	172	337	82	7
95th Queue (ft)	286	476	177	23
Link Distance (ft)	207	376	494	196
Upstream Blk Time (%)	42	14		
Queuing Penalty (veh)	0	107		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	291	626	43	276
Average Queue (ft)	117	408	11	247
95th Queue (ft)	226	701	36	287
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	0	6		94
Queuing Penalty (veh)	0	31		0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	101	257	100	214
Average Queue (ft)	54	115	53	80
95th Queue (ft)	84	292	104	199
Link Distance (ft)	630	358		459
Upstream Blk Time (%)		8		1
Queuing Penalty (veh)		41		0
Storage Bay Dist (ft)			75	
Storage Blk Time (%)		18	0	
Queuing Penalty (veh)		24	1	

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	WB	NB
Directions Served	TR	L	T	R
Maximum Queue (ft)	63	295	152	258
Average Queue (ft)	10	122	28	68
95th Queue (ft)	39	239	171	227
Link Distance (ft)	358	335	335	503
Upstream Blk Time (%)		0	2	2
Queuing Penalty (veh)		2	8	0
Storage Bay Dist (ft)				76
Storage Blk Time (%)				13
Queuing Penalty (veh)				14

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	L	L
Maximum Queue (ft)	163	322	200	156	178	199	227	151	158	157	211	225	225
Average Queue (ft)	66	145	149	56	99	121	153	61	61	70	141	193	193
95th Queue (ft)	142	267	215	128	169	203	226	131	128	142	216	268	268
Link Distance (ft)	335	335			175	175	175		736	736			
Upstream Blk Time (%)	0	0	0	1	3	9							
Queuing Penalty (veh)	1			0	4	9	25						
Storage Bay Dist (ft)			170	200			260				200	200	
Storage Blk Time (%)	3	7	0	1							1	3	
Queuing Penalty (veh)	9	14	0	2							5	15	

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR									
Maximum Queue (ft)	571	644	571	560									
Average Queue (ft)	293	314	317	348									
95th Queue (ft)	503	523	509	536									
Link Distance (ft)	966	966	966	966									
Upstream Blk Time (%)	0												
Queuing Penalty (veh)	0												
Storage Bay Dist (ft)													
Storage Blk Time (%)	14												
Queuing Penalty (veh)	59												

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	T	TR							
Maximum Queue (ft)	116	125	54	148	364	125							
Average Queue (ft)	51	63	3	29	110	91							
95th Queue (ft)	99	107	36	92	304	151							
Link Distance (ft)			177	383	383								
Upstream Blk Time (%)			0		1								
Queuing Penalty (veh)			0		3								
Storage Bay Dist (ft)		125				100							
Storage Blk Time (%)	0	0	0		1	9							
Queuing Penalty (veh)	1	1	0		4	25							

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	T	TR	L	T	T	T	T	T	L	L	R		
Maximum Queue (ft)	225	289	124	163	228	304	125						
Average Queue (ft)	88	129	57	39	105	178	53						
95th Queue (ft)	183	242	104	107	204	281	134						
Link Distance (ft)	383	383		242	242	471							
Upstream Blk Time (%)			0	0									
Queuing Penalty (veh)			0	1									
Storage Bay Dist (ft)			165				100						
Storage Blk Time (%)			0	0		27	0						
Queuing Penalty (veh)			0	0		17	0						

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	LR	R	L	L	T	T	T	T	T	T	T	TR
Maximum Queue (ft)	89	131	130	194	279	220	753	758					
Average Queue (ft)	34	67	59	154	106	56	725	727					
95th Queue (ft)	76	110	106	216	261	157	742	743					
Link Distance (ft)		392	392		259	259	707	707					
Upstream Blk Time (%)				2	0	58	81						
Queuing Penalty (veh)				9	0	0	0	0					
Storage Bay Dist (ft)	210			170									
Storage Blk Time (%)				12	0								
Queuing Penalty (veh)				25	1								

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	SB	SB	SB	SB	SB	NE	NE	NE	NE	NE
Directions Served	T	TR	R>	T	T	T	T	T	L	L	LT	TR	TR
Maximum Queue (ft)	185	226	225	3	478	448	130	187	160				
Average Queue (ft)	68	88	79	0	190	205	58	87	64				
95th Queue (ft)	154	180	179	3	393	402	116	161	138				
Link Distance (ft)	268	268	268	221	716	716	578	578					
Upstream Blk Time (%)			0	0									
Queuing Penalty (veh)			0	0									
Storage Bay Dist (ft)									300				
Storage Blk Time (%)													
Queuing Penalty (veh)													

Queuing and Blocking Report

12/22/2021

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	60	102	152	146
Average Queue (ft)	33	53	72	73
95th Queue (ft)	54	83	117	118
Link Distance (ft)		728	960	471
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	70	79	178	268	159	304
Average Queue (ft)	18	32	84	102	31	178
95th Queue (ft)	54	60	151	222	99	344
Link Distance (ft)		728		532	259	259
Upstream Blk Time (%)					7	6
Queuing Penalty (veh)					46	43
Storage Bay Dist (ft)		70	170			
Storage Blk Time (%)		1	0	0	2	
Queuing Penalty (veh)		1	0	1	3	

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LT	R	L	T	L	TR
Maximum Queue (ft)	202	75	102	73	174	185	235	301
Average Queue (ft)	83	41	30	13	82	60	117	144
95th Queue (ft)	159	85	73	45	145	137	207	278
Link Distance (ft)		265		304		444	444	578
Upstream Blk Time (%)		0						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)		50		70	170		200	
Storage Blk Time (%)		24	2	2	0	1	0	5
Queuing Penalty (veh)		19	4	0	0	1	0	3

Queuing and Blocking Report

12/22/2021

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB	B148	B148
Directions Served	LT	R	LTR	L	T	TR	UL	T	TR	T
Maximum Queue (ft)	130	75	45	66	170	194	62	301	200	210
Average Queue (ft)	35	50	12	48	103	120	48	169	166	27
95th Queue (ft)	92	83	37	77	190	205	71	343	349	122
Link Distance (ft)		304		191		145		221	268	268
Upstream Blk Time (%)					6	7		9	0	0
Queuing Penalty (veh)					30	35		59	54	3
Storage Bay Dist (ft)		50		40				35		
Storage Blk Time (%)		6	13	25	15			23	17	
Queuing Penalty (veh)		8	5	122	15			124	21	

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T
Maximum Queue (ft)	107	206	241	74	163	172
Average Queue (ft)	36	38	53	48	30	23
95th Queue (ft)	85	159	193	79	121	105
Link Distance (ft)		777	506		145	145
Upstream Blk Time (%)			1		2	0
Queuing Penalty (veh)			0		14	2
Storage Bay Dist (ft)				50		
Storage Blk Time (%)				16	0	
Queuing Penalty (veh)				75	0	

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	NB	SB	SB
Directions Served	LR	L	T	TR	
Maximum Queue (ft)	65	42	50	35	
Average Queue (ft)	28	12	2	2	
95th Queue (ft)	54	38	20	17	
Link Distance (ft)		777		471	960
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		0		0	
Queuing Penalty (veh)		0		0	

Zone Summary

Zone wide Queuing Penalty: 1812

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L	T	R
Maximum Queue (ft)	123	296	118	66	187	64	174	333	317	88	215	780
Average Queue (ft)	49	91	77	34	50	20	133	135	130	6	70	673
95th Queue (ft)	108	296	139	72	164	56	198	289	266	39	222	972
Link Distance (ft)	281			208			412	412				744
Upstream Blk Time (%)	17			8			0	0	0	0	39	
Queuing Penalty (veh)	0			0			2	2	1		0	
Storage Bay Dist (ft)	100			95	40		40	150		125	190	
Storage Blk Time (%)	2	0	31	32	4	2	11	2	5		0	77
Queuing Penalty (veh)	3	1	25	14	2	1	78	7	2	2	0	26

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R										
Maximum Queue (ft)	796	165										
Average Queue (ft)	688	150										
95th Queue (ft)	974	222										
Link Distance (ft)	744											
Upstream Blk Time (%)	71											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)		140										
Storage Blk Time (%)	77	1										
Queuing Penalty (veh)	266	6										

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	T	TR			
Maximum Queue (ft)	149	154	118	262	284	344	364	374	291			
Average Queue (ft)	109	128	32	149	167	309	337	344	143			
95th Queue (ft)	140	165	86	282	303	333	367	378	300			
Link Distance (ft)	103	103		966	966	284	284	284	284			
Upstream Blk Time (%)	66	71				63	77	68	1			
Queuing Penalty (veh)	151	162				337	411	363	4			
Storage Bay Dist (ft)			150									
Storage Blk Time (%)				7								
Queuing Penalty (veh)				3								

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	NB	NB	B227	B227	B227	B227	B227
Directions Served	LTR	T	R	L	T	TR	T	T	T	T	T	T
Maximum Queue (ft)	161	27	18	140	380	378	6	5				
Average Queue (ft)	125	4	1	42	158	164	1	0				
95th Queue (ft)	179	17	11	229	318	328	9	5				
Link Distance (ft)	150	259		548	548	548	88	88				
Upstream Blk Time (%)	12			2								
Queuing Penalty (veh)	29			14								
Storage Bay Dist (ft)			30									
Storage Blk Time (%)		2	0									
Queuing Penalty (veh)		0	0									

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R	LT									
Maximum Queue (ft)	16	38	497									
Average Queue (ft)	1	7	260									
95th Queue (ft)	8	26	472									
Link Distance (ft)	432	432	494									
Upstream Blk Time (%)			3									
Queuing Penalty (veh)			19									
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	LTR	LTR	LTR	LTR							
Maximum Queue (ft)	92	163	167	21								
Average Queue (ft)	35	61	68	3								
95th Queue (ft)	70	126	126	16								
Link Distance (ft)	207	376	494	196								
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		1										
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	287	320	39	163
Average Queue (ft)	129	142	14	70
95th Queue (ft)	241	280	39	129
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	0	0	0	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	NB	SB
Directions Served	LT	T	R	LR	
Maximum Queue (ft)	83	93	74	48	
Average Queue (ft)	44	52	31	22	
95th Queue (ft)	70	77	53	41	
Link Distance (ft)	630	358		459	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			75		
Storage Blk Time (%)		1	0		
Queuing Penalty (veh)		1	0		

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	NB	NB	SB
Directions Served	TR	L	L	R	
Maximum Queue (ft)	302	83	546	101	
Average Queue (ft)	100	26	494	101	
95th Queue (ft)	241	64	639	104	
Link Distance (ft)	358	335	503		
Upstream Blk Time (%)	0		75		
Queuing Penalty (veh)	1		0		
Storage Bay Dist (ft)				76	
Storage Blk Time (%)			30	68	
Queuing Penalty (veh)			143	198	

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	TR	L	L	T	TR	L	T	TR	L
Maximum Queue (ft)	361	379	207	70	116	200	284	760	768	212	225
Average Queue (ft)	243	336	187	12	38	103	181	202	701	708	207
95th Queue (ft)	392	436	226	45	92	203	197	351	846	849	231
Link Distance (ft)	335	335			175	175		736	736		
Upstream Blk Time (%)	9	30	0	0	1	8	55	7	8		
Queuing Penalty (veh)	35	111		0	1	23	155	66	76		
Storage Bay Dist (ft)			170	200			260			200	200
Storage Blk Time (%)		46	38	0	1			1	53	31	70
Queuing Penalty (veh)		196	126	0	0			5	96	113	255

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR							
Maximum Queue (ft)	985	984	897	598							
Average Queue (ft)	973	400	252	164							
95th Queue (ft)	982	936	660	379							
Link Distance (ft)	966	966	966	966							
Upstream Blk Time (%)	48	1	0								
Queuing Penalty (veh)	283	3	1								
Storage Bay Dist (ft)											
Storage Blk Time (%)		1									
Queuing Penalty (veh)		9									

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	T	T	TR				
Maximum Queue (ft)	96	111	93	103	351	476	125				
Average Queue (ft)	34	50	6	7	33	434	125				
95th Queue (ft)	73	87	54	58	172	461	128				
Link Distance (ft)			177	177	383	383					
Upstream Blk Time (%)			0	0	0	0	60				
Queuing Penalty (veh)			0	2	1	390					
Storage Bay Dist (ft)		125					100				
Storage Blk Time (%)		0	0	0			0	75			
Queuing Penalty (veh)		0	0	0			2	209			

Queuing and Blocking Report

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	WB	WB	WB	WB	B234	B234	NB	NB
Directions Served	T	TR	L	T	T	T	T	T	L	R
Maximum Queue (ft)	386	390	190	302	342	396	411	485	125	
Average Queue (ft)	188	199	36	110	317	175	393	421	74	
95th Queue (ft)	350	374	119	275	332	452	455	607	170	
Link Distance (ft)	383	383		242	242	392	392	471		
Upstream Blk Time (%)	1	2	7	92	0	59	28			
Queuing Penalty (veh)	4	14	17	221	1	141	227			
Storage Bay Dist (ft)			165						100	
Storage Blk Time (%)			6						72	
Queuing Penalty (veh)			3						87	1

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	L	T	T	T	TR		
Maximum Queue (ft)	212	238	194	195	295	287	716	716		
Average Queue (ft)	110	129	84	191	265	104	515	530		
95th Queue (ft)	190	210	156	214	316	262	848	852		
Link Distance (ft)		392	392		259	259	707	707		
Upstream Blk Time (%)				74	1	25	30			
Queuing Penalty (veh)				504	4	0	0			
Storage Bay Dist (ft)	210			170						
Storage Blk Time (%)	0	1		88	0					
Queuing Penalty (veh)	1	3		463	1					

Queuing and Blocking Report

12/22/2021

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	TR	NB	NB	B148	B148	SB	SB	SB	SB	NE	NE
Directions Served	T	TR	R>	T	T	T	T	T	T	T	R	R	L	L
Maximum Queue (ft)	369	374	352	312	306	293	336	338	73	67	415	453		
Average Queue (ft)	334	332	288	238	223	144	137	144	12	4	182	212		
95th Queue (ft)	392	394	410	391	362	316	332	333	158	92	390	420		
Link Distance (ft)	268	268	268	221	221	716	716	716	716	716	578	578		
Upstream Blk Time (%)	77	76	24	32	27	5	1	1	1	1	1	1		
Queuing Penalty (veh)	495	489	156	203	172	29	6	6	3		5	9		
Storage Bay Dist (ft)														
Storage Blk Time (%)														
Queuing Penalty (veh)														

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NE	NE	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR
Directions Served														
Maximum Queue (ft)														
Average Queue (ft)														
95th Queue (ft)														
Link Distance (ft)														
Upstream Blk Time (%)														
Queuing Penalty (veh)														
Storage Bay Dist (ft)														
Storage Blk Time (%)														
Queuing Penalty (veh)														

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR	LTR
Maximum Queue (ft)	222	279	974	338										
Average Queue (ft)	152	101	963	114										
95th Queue (ft)	247	223	994	314										
Link Distance (ft)		728	960	471										
Upstream Blk Time (%)			53	4										
Queuing Penalty (veh)			416	14										
Storage Bay Dist (ft)														
Storage Blk Time (%)														
Queuing Penalty (veh)														

12/22/2021

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	WB	WB	NB	NB	T	SB	SB	TR
Directions Served	L	R	L	R	L	T	T	T	T	TR
Maximum Queue (ft)	660	95	195	576	562	232	243			
Average Queue (ft)	340	45	78	527	417	92	103			
95th Queue (ft)	784	113	225	660	740	192	199			
Link Distance (ft)	728			532	532	239	259			
Upstream Blk Time (%)	15			82	12	0	0			
Queuing Penalty (veh)	46			0	0	1	1			
Storage Bay Dist (ft)				70	170					
Storage Blk Time (%)	63	2	0	88						
Queuing Penalty (veh)	88	3	0	33						

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	T	SB	SB	TR
Directions Served	LT	R	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	309	76	190	94	195	484	490	165	234	229
Average Queue (ft)	240	67	75	19	112	430	445	52	92	84
95th Queue (ft)	350	98	153	64	219	562	536	128	200	199
Link Distance (ft)	265		304			444	444		578	578
Upstream Blk Time (%)	31				34	47				
Queuing Penalty (veh)	0				0	0				
Storage Bay Dist (ft)				70	170			200		
Storage Blk Time (%)	54	23	13	0	2	31		0	1	
Queuing Penalty (veh)	142	47	3	0	12	42		2	1	

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	T	SB	SB	B148	B148
Directions Served	LT	R	L	TR	L	T	TR	UL	T	TR	T
Maximum Queue (ft)	308	75	93	65	193	215	59	299	296	250	236
Average Queue (ft)	113	54	28	32	148	167	38	158	126	55	41
95th Queue (ft)	290	93	71	75	213	235	73	345	305	221	185
Link Distance (ft)	304		191		145	145		221	221	268	268
Upstream Blk Time (%)	9				27	34		25	7	6	3
Queuing Penalty (veh)	27				208	257		126	35	28	14
Storage Bay Dist (ft)				40				35			
Storage Blk Time (%)	34	14		7	44			47	17		
Queuing Penalty (veh)	54	9		65	30			228	11		

12/22/2021

Intersection: 18: N.Main St. & Central Rd

Movement	WB	WB	NB	NB	SB	SB	L	TR	TR	T
Directions Served	LR		T	TR	L	T				T
Maximum Queue (ft)	419	536	548	64	141	138				
Average Queue (ft)	213	395	424	30	31	27				
95th Queue (ft)	440	673	672	67	120	101				
Link Distance (ft)	777	506	506		145	145				
Upstream Blk Time (%)		30	43		11	3				
Queuing Penalty (veh)		0	0		62	17				
Storage Bay Dist (ft)					21	0				
Storage Blk Time (%)					108	0				
Queuing Penalty (veh)										

Intersection: 19: N.Broadway & Central Rd

Movement	EB	EB	NB	NB	SB	SB	L	TR	TR	T
Directions Served	LR		L	T	TR					T
Maximum Queue (ft)	684	74	518	31						
Average Queue (ft)	448	26	485	1						
95th Queue (ft)	813	84	557	16						
Link Distance (ft)	777		471	960						
Upstream Blk Time (%)	13		98							
Queuing Penalty (veh)	7		0							
Storage Bay Dist (ft)		50								
Storage Blk Time (%)		0	98							
Queuing Penalty (veh)		1	32							

Zone Summary

Zone wide Queuing Penalty: 9862

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	L	T	R	L
Maximum Queue (ft)	111	171	119	44	45	44	168	168	156	37	84	524	524
Average Queue (ft)	53	18	71	9	8	6	93	33	46	3	7	175	175
95th Queue (ft)	95	93	119	34	30	28	158	106	108	21	45	349	349
Link Distance (ft)	281												744
Upstream Blk Time (%)	0												0
Queuing Penalty (veh)	0												0
Storage Bay Dist (ft)	100	0											
Storage Blk Time (%)	1	0	5	1	1	0	3	0	0	0	125	190	4
Queuing Penalty (veh)	2	0	5	0	0	0	7	0	0	0	0	0	0

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R											
Maximum Queue (ft)	590	165											
Average Queue (ft)	203	122											
95th Queue (ft)	434	206											
Link Distance (ft)	744												
Upstream Blk Time (%)	0												
Queuing Penalty (veh)	0												
Storage Bay Dist (ft)	140												
Storage Blk Time (%)	8												
Queuing Penalty (veh)	50												

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	
Directions Served	LTR	R	UL	T	TR	T	T	T	T	TR	
Maximum Queue (ft)	124	150	84	160	161	312	335	332	332	281	
Average Queue (ft)	90	96	33	51	58	198	205	193	150	150	
95th Queue (ft)	123	158	74	122	125	332	352	339	269	284	
Link Distance (ft)	103	103	966								966
Upstream Blk Time (%)	11	12	2								3
Queuing Penalty (veh)	27	29	12								17
Storage Bay Dist (ft)	150										1
Storage Blk Time (%)	0										0
Queuing Penalty (veh)	0										0

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	NB	NB
Directions Served	LT	T	R	L	T	TR	
Maximum Queue (ft)	92	29	33	21	132	147	
Average Queue (ft)	36	6	4	2	33	36	
95th Queue (ft)	76	22	21	13	96	106	
Link Distance (ft)	150	259		548	548	548	
Upstream Blk Time (%)	0						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)			30				
Storage Blk Time (%)		1	1				
Queuing Penalty (veh)		0	0				

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R	LT										
Maximum Queue (ft)	6	40	563										
Average Queue (ft)	0	9	522										
95th Queue (ft)	4	30	588										
Link Distance (ft)	432	432	494										
Upstream Blk Time (%)	62												
Queuing Penalty (veh)	524												
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	LTR	LTR	LTR	LTR								
Maximum Queue (ft)	231	395	209	30									
Average Queue (ft)	178	356	71	7									
95th Queue (ft)	281	450	140	24									
Link Distance (ft)	207	376	494	196									
Upstream Blk Time (%)	40	18											
Queuing Penalty (veh)	0	142											
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	262	641	37	275
Average Queue (ft)	112	558	10	249
95th Queue (ft)	212	765	34	280
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	0	22	98	0
Queuing Penalty (veh)	0	108	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	WB	SB
Directions Served	LT	T	R	LR	
Maximum Queue (ft)	107	374	100	318	
Average Queue (ft)	54	228	75	136	
95th Queue (ft)	86	470	130	341	
Link Distance (ft)	630	358		459	
Upstream Blk Time (%)		27		6	
Queuing Penalty (veh)		149		0	
Storage Bay Dist (ft)			75		
Storage Blk Time (%)		55	0		
Queuing Penalty (veh)		73	2		

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	WB	NB	NB
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	95	327	282	404	101
Average Queue (ft)	11	134	96	171	41
95th Queue (ft)	65	280	333	497	100
Link Distance (ft)	358	335	335	503	
Upstream Blk Time (%)	0	0	5	18	
Queuing Penalty (veh)	1	2	22	0	
Storage Bay Dist (ft)					76
Storage Blk Time (%)					37
Queuing Penalty (veh)					39

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	TR	L	L	T	TR	L	T	TR	L
Maximum Queue (ft)	141	312	198	165	185	199	218	233	191	178	211
Average Queue (ft)	58	130	140	60	108	116	148	116	70	75	128
95th Queue (ft)	126	247	210	140	183	198	224	224	159	144	207
Link Distance (ft)	335	335			175	175	175		736		736
Upstream Blk Time (%)		1		0	4	4	8				
Queuing Penalty (veh)		2		0	11	10	24				
Storage Bay Dist (ft)			170	200				260			200
Storage Blk Time (%)		3	8	0	4			2			1
Queuing Penalty (veh)		9	15	0	4			3			13

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR							
Maximum Queue (ft)	551	548	550	585							
Average Queue (ft)	291	312	321	361							
95th Queue (ft)	511	517	514	554							
Link Distance (ft)	966	966	966	966							
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)		14									
Queuing Penalty (veh)		58									

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	T	TR					
Maximum Queue (ft)	130	136	74	215	390	125					
Average Queue (ft)	55	66	3	38	110	91					
95th Queue (ft)	108	114	42	126	312	152					
Link Distance (ft)			177	383	383						
Upstream Blk Time (%)			0	0	1						
Queuing Penalty (veh)			1	0	5						
Storage Bay Dist (ft)			125			100					
Storage Blk Time (%)		0	1		1	9					
Queuing Penalty (veh)		0	3		5	25					

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	WB	WB	WB	B234	NB	NB	R
Directions Served	T	TR	L	T	T	T	L	R	
Maximum Queue (ft)	210	274	120	154	254	12	308	125	
Average Queue (ft)	89	128	56	39	109	1	171	53	
95th Queue (ft)	180	241	102	103	207	14	273	136	
Link Distance (ft)	383	383		242	242	392	471		
Upstream Blk Time (%)			0	1		0			
Queuing Penalty (veh)			0	2		0			
Storage Bay Dist (ft)			165				100		
Storage Blk Time (%)			0	0			26	0	
Queuing Penalty (veh)			0	0			17	0	

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LR	R	L	T	T	T	TR	
Maximum Queue (ft)	98	131	136	194	279	200	757	758	
Average Queue (ft)	35	68	63	150	99	49	717	720	
95th Queue (ft)	81	112	113	218	248	142	812	807	
Link Distance (ft)		392	392		259	259	707	707	
Upstream Blk Time (%)				3	0	0	56	78	
Queuing Penalty (veh)				11	0	0	0	0	
Storage Bay Dist (ft)	210			170					
Storage Blk Time (%)				11	0				
Queuing Penalty (veh)				23	0				

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	SB	SB	NE	NE	NE	TR
Directions Served	T	TR	R>	T	T	L	LT	TR	
Maximum Queue (ft)	195	214	202	389	413	135	189	161	
Average Queue (ft)	85	103	84	211	227	61	88	68	
95th Queue (ft)	173	197	185	462	475	121	166	143	
Link Distance (ft)	268	268	268	716	716	578	578		
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)								300	
Storage Blk Time (%)									
Queuing Penalty (veh)									

12/22/2021

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB	LTR	LTR
Directions Served	LTR	LTR	LTR	LTR		
Maximum Queue (ft)	77	110	167	151		
Average Queue (ft)	39	54	74	70		
95th Queue (ft)	62	87	125	119		
Link Distance (ft)		728	960	471		
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	75	78	177	320	198	299
Average Queue (ft)	25	33	89	106	38	183
95th Queue (ft)	60	65	159	245	123	355
Link Distance (ft)		728		532	259	259
Upstream Blk Time (%)			0	7	6	
Queuing Penalty (veh)			70	170	0	47
Storage Bay Dist (ft)			1	1	1	3
Storage Blk Time (%)			1	0	3	3
Queuing Penalty (veh)			1	0	3	3

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR
Maximum Queue (ft)	235	75	109	84	162	202	185
Average Queue (ft)	88	42	36	15	77	67	118
95th Queue (ft)	174	88	83	52	137	151	213
Link Distance (ft)	265		304		444	444	578
Upstream Blk Time (%)		0					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)		50		70	170	200	
Storage Blk Time (%)		25	3	2	0	1	0
Queuing Penalty (veh)		20	4	0	0	1	0
							4

12/22/2021

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	NB	NB	SB	SB	SB	B148	B148
	LT	R	LTR	L	T	TR	UL	T	TR	T
Directions Served										
Maximum Queue (ft)	134	75	46	65	169	182	61	304	301	163
Average Queue (ft)	32	47	12	47	85	108	29	147	158	17
95th Queue (ft)	88	79	37	75	171	190	61	324	336	90
Link Distance (ft)	304		191		145	145	221	221	268	268
Upstream Blk Time (%)				2	4	4	6	7	0	0
Queuing Penalty (veh)				10	18	18	36	44	0	0
Storage Bay Dist (ft)		50		40			35			
Storage Blk Time (%)	5	10		21	11		7	17		
Queuing Penalty (veh)	7	4		88	11		37	11		

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	NB	SB	SB	SB	SB	SB	SB
	LR	T	TR	L	T	T			
Directions Served									
Maximum Queue (ft)	68	115	154	74	151	144			
Average Queue (ft)	31	13	28	45	23	15			
95th Queue (ft)	58	61	101	76	97	78			
Link Distance (ft)	777	506	506		145	145			
Upstream Blk Time (%)				0	0				
Queuing Penalty (veh)				3	1				
Storage Bay Dist (ft)				50					
Storage Blk Time (%)				9	0				
Queuing Penalty (veh)				43	0				

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	NB	SB	SB	SB	SB	SB	SB
	LR	L	T	TR					
Directions Served									
Maximum Queue (ft)	68	41	40	42					
Average Queue (ft)	28	11	2	3					
95th Queue (ft)	55	37	20	21					
Link Distance (ft)	777		471	960					
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		50							
Storage Blk Time (%)		0	0						
Queuing Penalty (veh)		0	0						

Zone Summary

Zone wide Queuing Penalty: 1925

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	WB	NB	NB	SB	SB	SB	SB
	L	T	R	L	T	TR	UL	T	TR
Directions Served									
Maximum Queue (ft)	120	285	120	65	172	62	174	341	346
Average Queue (ft)	52	104	80	32	53	19	132	141	140
95th Queue (ft)	108	309	141	73	173	53	202	304	293
Link Distance (ft)		281			208			412	412
Upstream Blk Time (%)		17		7	7			0	0
Queuing Penalty (veh)		0		95	40		150		125
Storage Bay Dist (ft)		100		35	32		4	2	9
Storage Blk Time (%)		2		0	29		14	2	1
Queuing Penalty (veh)		2		0	63		10	2	0

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB
	T	R							
Directions Served									
Maximum Queue (ft)	790	165							
Average Queue (ft)	704	150							
95th Queue (ft)	977	224							
Link Distance (ft)		744							
Upstream Blk Time (%)		77							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)		140							
Storage Blk Time (%)		79		1					
Queuing Penalty (veh)		273		5					

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	SB	SB	SB	SB	SB
	R	UL	T	TR	T	T	TR		
Directions Served									
Maximum Queue (ft)	138	152	154	364	374	340	364	373	287
Average Queue (ft)	103	118	36	177	200	307	335	342	148
95th Queue (ft)	133	161	100	341	365	340	379	383	306
Link Distance (ft)	103	103		966	966	284	284	284	284
Upstream Blk Time (%)		59				64	77	69	1
Queuing Penalty (veh)		134		137		340	411	388	3
Storage Bay Dist (ft)				150					
Storage Blk Time (%)						11			
Queuing Penalty (veh)						4			

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	TR	NB	B227
Directions Served	LTR	T	R	L	T	TR		T
Maximum Queue (ft)	159	27	29	182	398	405	3	
Average Queue (ft)	117	5	1	37	156	164	0	
95th Queue (ft)	178	19	12	159	343	358	3	
Link Distance (ft)	150	259		548	548	548	88	
Upstream Blk Time (%)	10			0	0	0		
Queuing Penalty (veh)	23			0	0	0		
Storage Bay Dist (ft)				30				
Storage Blk Time (%)		4	1					
Queuing Penalty (veh)		0	0					

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB
Directions Served	T	R	LT	
Maximum Queue (ft)	4	38	436	
Average Queue (ft)	0	6	212	
95th Queue (ft)	3	25	403	
Link Distance (ft)	432	432	494	
Upstream Blk Time (%)			1	
Queuing Penalty (veh)			7	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	81	136	153	21
Average Queue (ft)	35	57	66	3
95th Queue (ft)	66	112	116	15
Link Distance (ft)	207	376	494	196
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	271	292	40	154
Average Queue (ft)	126	128	15	68
95th Queue (ft)	233	252	41	121
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	0			0
Queuing Penalty (veh)	0			0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	124	92	76	61
Average Queue (ft)	46	49	31	23
95th Queue (ft)	105	75	54	47
Link Distance (ft)	630	358		459
Upstream Blk Time (%)				
Queuing Penalty (veh)			75	
Storage Bay Dist (ft)		1	0	
Storage Blk Time (%)		1	0	
Queuing Penalty (veh)		1	0	

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	294	75	555	101
Average Queue (ft)	98	23	463	99
95th Queue (ft)	253	57	680	114
Link Distance (ft)	358	335	503	
Upstream Blk Time (%)	1		67	
Queuing Penalty (veh)	3		0	
Storage Bay Dist (ft)			76	
Storage Blk Time (%)			29	62
Queuing Penalty (veh)			139	182

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB	TR	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR	L	SB
Maximum Queue (ft)	363	373	203	68	114	192	212	285	761	764	212	212	212	225
Average Queue (ft)	266	316	183	14	36	91	182	166	685	688	204	219	204	219
95th Queue (ft)	392	452	227	44	89	193	198	346	938	944	251	267	251	267
Link Distance (ft)	335	335			175	175	175		736	736				
Upstream Blk Time (%)	10	27		0	7	55			8	9				
Queuing Penalty (veh)	38	101		1	19	154			80	84				
Storage Bay Dist (ft)			170	200			260				200	200		
Storage Blk Time (%)	44	38		0			0		53		32	68		
Queuing Penalty (veh)	183	126		0			1		72		120	252		

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR
Directions Served	T	T	T	T	T	T	T	T	T	T	T	T	T	T
Maximum Queue (ft)	984	974	883	647										
Average Queue (ft)	971	424	258	155										
95th Queue (ft)	997	988	715	406										
Link Distance (ft)	966	966	966	966										
Upstream Blk Time (%)	46	1	0	0										
Queuing Penalty (veh)	276	8	3	0										
Storage Bay Dist (ft)														
Storage Blk Time (%)	3													
Queuing Penalty (veh)	19													

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	TR	TR	TR	TR	TR
Directions Served	L	L	T	T	T	T	T	T	T	T	T	T	T	T
Maximum Queue (ft)	90	114	92	97	324	464	125							
Average Queue (ft)	34	51	10	11	40	432	125							
95th Queue (ft)	74	90	73	80	199	455	127							
Link Distance (ft)			177	177	383	383								
Upstream Blk Time (%)			1	1	1	0	60							
Queuing Penalty (veh)			5	9	3	386								
Storage Bay Dist (ft)	125	125				100								
Storage Blk Time (%)	0	1				75								
Queuing Penalty (veh)	0	2			9	209								

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB	TR	SB	SB
Directions Served	T	TR	L	T	T	T	T	T	T	T	L	T	L	R
Maximum Queue (ft)	392	388	182	289	350	398	411	486	125					
Average Queue (ft)	185	196	36	110	318	165	397	434	68					
95th Queue (ft)	354	373	117	283	336	455	432	600	165					
Link Distance (ft)	383	383		242	392	392		471						
Upstream Blk Time (%)	1	3		7	92	0	58	35						
Queuing Penalty (veh)	6	17		17	222	1	140	278						
Storage Bay Dist (ft)			165								100			
Storage Blk Time (%)			0	9				74			0			
Queuing Penalty (veh)			0	5				89			1			

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB	TR	SB	SB
Directions Served	L	LR	R	L	L	T	T	T	T	T	T	T	T	TR
Maximum Queue (ft)	218	237	186	195	306	289	734	731						
Average Queue (ft)	105	123	82	190	260	90	566	577						
95th Queue (ft)	189	206	156	216	341	242	887	893						
Link Distance (ft)		392	392		259	259	707	707						
Upstream Blk Time (%)				72	1	38	49							
Queuing Penalty (veh)				479	4	0								
Storage Bay Dist (ft)	210			170										
Storage Blk Time (%)	0	1		85	1									
Queuing Penalty (veh)	1	3		434	3									

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

[illegible]

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NE
Directions Served	TR
Maximum Queue (ft)	312
Average Queue (ft)	161
95th Queue (ft)	324
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	0
Queuing Penalty (veh)	2

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB
	LTR	LTR	LTR	LTR
Directions Served				
Maximum Queue (ft)	218	329	973	299
Average Queue (ft)	147	124	964	110
95th Queue (ft)	246	281	973	314
Link Distance (ft)		728	960	471
Upstream Blk Time (%)			54	4
Queuing Penalty (veh)			423	12
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	NB	NB	T	T	T	SB	SB	TR
Directions Served	L	R	L	NB	T	T	T	SB	SB	TR
Maximum Queue (ft)	648	95	195	580	554	232	240			
Average Queue (ft)	278	34	70	506	391	93	109			
95th Queue (ft)	706	98	209	692	728	204	216			
Link Distance (ft)	728			532	532	259	259			
Upstream Blk Time (%)	10			76	11	0	0			
Queuing Penalty (veh)	26			0	0	1	1			
Storage Bay Dist (ft)		70	170							
Storage Blk Time (%)	55	1	0	83						
Queuing Penalty (veh)	46	1	0	32						

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	R	L	T	NB	NB	T	TR	L	SB	SB	TR
Directions Served	LT	R	LT	R	R	L	T	NB	NB	T	TR	L	SB	SB	T
Maximum Queue (ft)	306	75	189	95	195	487	490	185	218	217					
Average Queue (ft)	255	65	72	22	108	451	457	58	104	94					
95th Queue (ft)	342	102	149	73	217	521	504	149	221	212					
Link Distance (ft)	265		304			444	444		578						
Upstream Blk Time (%)	39					46	61								
Queueing Penalty (veh)	0					0	0								
Storage Bay Dist (ft)		50		70	170			200							
Storage Bk Time (%)	57	23	13	0	1	35	5	1							
Queueing Penalty (veh)	150	47	3	0	7	47	21	1							

Intersection: 17: N.Main St. & Prindle Ave

Movement	EB	EB	WB	NB	NB	T	TR	NB	SB	SB	UL	T	TR	SB	B148	B148
Directions Served	LT	R	LTR	NB	NB	L	T	TR	NB	SB	UL	T	TR	SB	T	T
Maximum Queue (ft)	320	75	82	64	193	215	60	304	296	249	235					
Average Queue (ft)	120	57	25	34	149	167	46	206	163	80	58					
95th Queue (ft)	299	94	66	76	217	244	78	383	345	255	214					
Link Distance (ft)	304		191		145	145		221	221	268	268					
Upstream Blk Time (%)	13				31	37		38	7	7	0					
Queuing Penalty (veh)	38				244	235		195	37	34	2					
Storage Bay Dist (ft)		50		40			35									
Storage Blk Time (%)	32	18		8	46		66	15								
Queuing Penalty (veh)	51	11		75	31		319	12								

12/22/2021

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	NB	SB	SB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T		
Maximum Queue (ft)	489	544	550	69	122	105		
Average Queue (ft)	285	428	453	26	24	18		
95th Queue (ft)	566	698	677	66	104	67		
Link Distance (ft)	777	506	506		145	145		
Upstream Blk Time (%)	2	41	55	10	0			
Queuing Penalty (veh)	1	0	0		55	0		
Storage Bay Dist (ft)				50				
Storage Blk Time (%)				18	0			
Queuing Penalty (veh)				89	0			

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	NB	SB	SB	SB	SB	SB
Directions Served	LR	L	T	TR				
Maximum Queue (ft)	538	74	524	83				
Average Queue (ft)	298	27	491	6				
95th Queue (ft)	677	85	511	91				
Link Distance (ft)	777		471	960				
Upstream Blk Time (%)	3		100					
Queuing Penalty (veh)	2		0					
Storage Bay Dist (ft)		50						
Storage Blk Time (%)		2	98					
Queuing Penalty (veh)		12	32					

Zone Summary

Zone wide Queuing Penalty: 10067

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	WB	WB	SB	SB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	NB	T	NB	T	SB
Maximum Queue (ft)	108	180	119	42	43	38	167	160	137	27	83	375	
Average Queue (ft)	54	22	74	7	7	5	90	31	46	4	7	169	
95th Queue (ft)	99	104	123	29	29	24	155	98	102	18	50	308	
Link Distance (ft)													
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	R											
Maximum Queue (ft)	472	165											
Average Queue (ft)	211	126											
95th Queue (ft)	407	210											
Link Distance (ft)													
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	LTR	R	UL	T	TR	T	T	TR					
Maximum Queue (ft)	126	150	102	136	149	306	336	335	276				
Average Queue (ft)	90	96	36	48	55	198	212	195	152				
95th Queue (ft)	123	157	78	105	117	321	351	340	276				
Link Distance (ft)	103	103		966	966	284	284	284	284				
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	SB	TR
Directions Served	LT	T	R	L	T		
Maximum Queue (ft)	99	35	34	26	139	146	
Average Queue (ft)	38	7	3	2	35	38	
95th Queue (ft)	81	25	20	13	101	110	
Link Distance (ft)	150	259		548	548	548	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			30				
Storage Blk Time (%)		1	1				
Queuing Penalty (veh)		0	0				

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB
Directions Served	T	R	LT	
Maximum Queue (ft)	15	48	559	
Average Queue (ft)	0	8	523	
95th Queue (ft)	8	30	590	
Link Distance (ft)	432	432	494	
Upstream Blk Time (%)		60		
Queuing Penalty (veh)		501		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	240	394	206	25
Average Queue (ft)	191	347	73	6
95th Queue (ft)	283	455	154	22
Link Distance (ft)	207	376	494	196
Upstream Blk Time (%)	55	17		
Queuing Penalty (veh)	0	131		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	276	636	39	277
Average Queue (ft)	113	542	10	251
95th Queue (ft)	218	797	35	269
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	0	22	99	0
Queuing Penalty (veh)	0	106		0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	96	359	100	359
Average Queue (ft)	52	226	74	152
95th Queue (ft)	79	467	130	383
Link Distance (ft)	630	358	459	
Upstream Blk Time (%)	25		8	
Queuing Penalty (veh)	138		0	
Storage Bay Dist (ft)		53	75	
Storage Blk Time (%)		53	1	
Queuing Penalty (veh)	71	3		

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	WB	NB
Directions Served	TR	L	T	L R
Maximum Queue (ft)	41	327	276	332 101
Average Queue (ft)	9	140	94	135 40
95th Queue (ft)	30	298	337	422 94
Link Distance (ft)	358	335	335	503
Upstream Blk Time (%)		1	7	13
Queuing Penalty (veh)		5	33	0
Storage Bay Dist (ft)				76
Storage Blk Time (%)				30 1
Queuing Penalty (veh)				32 0

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	L
Maximum Queue (ft)	147	312	196	169	185	201	229	184	218	169	212	225
Average Queue (ft)	54	128	132	65	115	124	154	100	88	80	134	179
95th Queue (ft)	121	244	208	152	194	207	225	212	231	148	212	269
Link Distance (ft)	335	335			175	175	175	736	736			
Upstream Blk Time (%)	0	0	0	4	5	10	10	0	0			
Queuing Penalty (veh)	0	0	0	12	14	30		260	1			
Storage Bay Dist (ft)			170	200						200	200	
Storage Blk Time (%)	2	5	0	4				4		1	3	
Queuing Penalty (veh)	7	10	0	5				5		6	14	

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	TR	TR	TR	TR	TR	TR	TR	TR
Directions Served	T	T	T	T	TR							
Maximum Queue (ft)	519	602	575	582								
Average Queue (ft)	288	314	331	374								
95th Queue (ft)	496	529	534	571								
Link Distance (ft)	966	966	966	966								
Upstream Blk Time (%)	0	0	0	0								
Queuing Penalty (veh)	0	0	0	0								
Storage Bay Dist (ft)												
Storage Blk Time (%)	14											
Queuing Penalty (veh)	57											

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	WB	WB	WB	WB	TR	TR	TR	TR	TR
Directions Served	L	L	T	T	T	T	T	TR				
Maximum Queue (ft)	118	123	36	20	186	407	125					
Average Queue (ft)	53	65	1	1	41	126	93					
95th Queue (ft)	104	109	25	20	128	333	155					
Link Distance (ft)		177	177	383	383							
Upstream Blk Time (%)	0	0	0	0	0	1						
Queuing Penalty (veh)	0	0	0	0	0	6						
Storage Bay Dist (ft)	125	125				100						
Storage Blk Time (%)	0	0				1	11					
Queuing Penalty (veh)	0	1				4	30					

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	WB	B234	B234	NB	NB	NB
Directions Served	T	TR	L	T	T	T	T	T	T	L	L	R
Maximum Queue (ft)	215	267	117	173	251	39	40	302	125			
Average Queue (ft)	90	124	52	41	104	1	3	175	54			
95th Queue (ft)	180	232	97	120	207	39	54	278	135			
Link Distance (ft)	383	383		242	242	392	392	471				
Upstream Blk Time (%)	0	0	1	0	1	0	0					
Queuing Penalty (veh)			1	4								
Storage Bay Dist (ft)		165							100			
Storage Blk Time (%)	0	0							26	0		
Queuing Penalty (veh)	0	0							17	0		

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LR	R	L	T	T	T	T	T	TR		
Maximum Queue (ft)	103	134	141	194	289	228	753	751				
Average Queue (ft)	35	68	64	150	103	53	719	722				
95th Queue (ft)	79	113	115	217	285	161	770	770				
Link Distance (ft)		392	392		259	259	707	707				
Upstream Blk Time (%)				4	0	56	78					
Queuing Penalty (veh)				14	0	0						
Storage Bay Dist (ft)	210			170								
Storage Blk Time (%)				12	0							
Queuing Penalty (veh)				25	1							

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	NB	SB	SB	SB	SB	NE	NE	NE	NE	NE
Directions Served	T	TR	R>	T	T	R	R	L	L	LT	TR	
Maximum Queue (ft)	192	211	192	381	407	42	6	151	182	164		
Average Queue (ft)	86	103	77	165	185	1	0	59	82	64		
95th Queue (ft)	167	185	167	355	370	41	5	123	154	137		
Link Distance (ft)		268	268	716	716	716	716	578	578			
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)									300			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Queuing and Blocking Report

12/22/2021

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	
Maximum Queue (ft)	68	95	142	141
Average Queue (ft)	36	51	73	66
95th Queue (ft)	58	84	116	108
Link Distance (ft)		728	960	471
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	89	79	191	308	212	298
Average Queue (ft)	24	32	91	113	42	184
95th Queue (ft)	62	65	164	249	138	354
Link Distance (ft)		728		532	532	259
Upstream Blk Time (%)					6	6
Queuing Penalty (veh)					39	37
Storage Bay Dist (ft)		70	170			
Storage Blk Time (%)		1	0	1	3	
Queuing Penalty (veh)		1	0	2	3	

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LT	R	L	T	L	TR
Maximum Queue (ft)	215	75	103	73	176	226	246	292
Average Queue (ft)	83	41	32	15	83	72	117	149
95th Queue (ft)	163	84	75	48	155	171	206	261
Link Distance (ft)		265		304		444	444	578
Upstream Blk Time (%)		0						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)		50		70	170		200	
Storage Blk Time (%)		23	3	2	0	1	0	4
Queuing Penalty (veh)		18	5	1	0	3	0	2

Queuing and Blocking Report

12/22/2021

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	UL	T
Maximum Queue (ft)	124	75	44	66	165	180	304	170
Average Queue (ft)	30	47	11	46	76	99	24	138
95th Queue (ft)	82	79	36	75	158	187	55	309
Link Distance (ft)		304		191		145	221	268
Upstream Blk Time (%)					1	3	5	6
Queuing Penalty (veh)					6	13	29	37
Storage Bay Dist (ft)		50		40			35	
Storage Blk Time (%)		4	10	19	10		4	14
Queuing Penalty (veh)		6	4	73	10		19	6

Intersection: 18: N.Main St. & Central Rd

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	TR	L	T
Maximum Queue (ft)	76	88	116	74	140
Average Queue (ft)	30	9	20	41	15
95th Queue (ft)	61	49	77	72	76
Link Distance (ft)		777	506	506	145
Upstream Blk Time (%)				0	0
Queuing Penalty (veh)				1	0
Storage Bay Dist (ft)				50	
Storage Blk Time (%)				6	0
Queuing Penalty (veh)				26	0

Intersection: 19: N.Broadway & Central Rd

Movement	EB	NB	NB	SB	SB
Directions Served	LR	L	T	TR	
Maximum Queue (ft)	61	42	21	24	
Average Queue (ft)	26	13	1	2	
95th Queue (ft)	53	39	12	13	
Link Distance (ft)		777		471	960
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		1		0	

Zone Summary

Zone wide Queuing Penalty: 1807

12/22/2021

Intersection: 1: N.Main St. & San Luis Rd.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
	L	T	R	L	T	R	L	T	R	T	R	L
Directions Served												
Maximum Queue (ft)	119	308	120	62	174	60	174	338	322	114	214	777
Average Queue (ft)	50	92	78	33	35	19	132	133	131	9	74	670
95th Queue (ft)	104	292	140	69	126	52	199	289	270	58	225	969
Link Distance (ft)		281		208			412	412				744
Upstream Blk Time (%)	15			2			0			0		34
Queuing Penalty (veh)	0			0			0			0		0
Storage Bay Dist (ft)	100		95	40		40	150			125	190	
Storage Blk Time (%)	2	0	29	31	2	2	12	3	7	0	0	76
Queuing Penalty (veh)	2	1	24	14	1	1	79	9	2	0	0	26

Intersection: 1: N.Main St. & San Luis Rd.

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
	T	R										
Directions Served												
Maximum Queue (ft)	792	165										
Average Queue (ft)	679	150										
95th Queue (ft)	988	222										
Link Distance (ft)		744										
Upstream Blk Time (%)	70											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)		140										
Storage Blk Time (%)	75	1										
Queuing Penalty (veh)	261	6										

Intersection: 2: N.Main St. & Penniman Rd.

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB	SB
	LTR	R	UL	T	TR	T	T	T	T	TR		
Directions Served												
Maximum Queue (ft)	143	155	140	285	292	340	366	367	288			
Average Queue (ft)	107	122	35	161	179	308	336	339	143			
95th Queue (ft)	137	162	100	284	302	339	375	387	299			
Link Distance (ft)	103	103		966	966	284	284	284	284			
Upstream Blk Time (%)	70	72				62	76	67	1			
Queuing Penalty (veh)	160	164				332	405	356	3			
Storage Bay Dist (ft)			150									
Storage Blk Time (%)			0	10								
Queuing Penalty (veh)			0	4								

12/22/2021

Intersection: 3: Lawrence Way/I-680 On-ramp & Penniman Rd.

Movement	EB	WB	WB	NB	NB	NB	NB	NB	NB	NB	NB	NB
	LTR	T	R	L	T	TR	T	TR	T			
Directions Served												
Maximum Queue (ft)	160	33	23	340	392	409	9					
Average Queue (ft)	122	5	2	119	164	171	1					
95th Queue (ft)	179	23	16	400	341	351	17					
Link Distance (ft)	150	259		548	548	548	88					
Upstream Blk Time (%)	12			4		0	1					
Queuing Penalty (veh)	28			24		0	7					
Storage Bay Dist (ft)			30									
Storage Blk Time (%)		6	1									
Queuing Penalty (veh)		0	0									

Intersection: 4: Ygnacio Valley & WB I24 On-ramp

Movement	NB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
	T	R	LT									
Directions Served												
Maximum Queue (ft)	4	42	443									
Average Queue (ft)	0	6	209									
95th Queue (ft)	3	25	399									
Link Distance (ft)		432	432	494								
Upstream Blk Time (%)			1									
Queuing Penalty (veh)			6									
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 5: Parkside Dr & Hillside Ave

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB
	LTR	LTR	LTR	LTR	LTR							
Directions Served												
Maximum Queue (ft)	76	118	157	23								
Average Queue (ft)	33	56	64	3								
95th Queue (ft)	64	109	114	16								
Link Distance (ft)	207	376	494	196								
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

12/22/2021

Intersection: 6: Parkside Dr & Buena Vista

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	277	237	39	158
Average Queue (ft)	114	105	15	65
95th Queue (ft)	221	197	40	116
Link Distance (ft)	376	630	614	234
Upstream Blk Time (%)	0	0	0	0
Queuing Penalty (veh)	2	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Parkside Dr & San Juan Ave

Movement	EB	WB	WB	NB	SB
Directions Served	LT	T	R	LR	
Maximum Queue (ft)	66	84	77	58	
Average Queue (ft)	42	47	31	22	
95th Queue (ft)	63	71	54	42	
Link Distance (ft)	630	358		459	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			75		
Storage Blk Time (%)		0	0		
Queuing Penalty (veh)		1	0		

Intersection: 8: Riviera Ave & Parkside Dr

Movement	EB	WB	NB	NB	SB
Directions Served	TR	L	L	R	
Maximum Queue (ft)	258	88	549	101	
Average Queue (ft)	83	24	469	100	
95th Queue (ft)	216	65	678	107	
Link Distance (ft)	358	335	503		
Upstream Blk Time (%)	0		70		
Queuing Penalty (veh)	0		0		
Storage Bay Dist (ft)				76	
Storage Blk Time (%)			25	65	
Queuing Penalty (veh)			121	190	

12/22/2021

Intersection: 9: N.Main St. & Parkside Dr

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L
Maximum Queue (ft)	373	377	202	73	111	189	215	284	768
Average Queue (ft)	281	309	178	12	40	92	182	173	721
95th Queue (ft)	416	453	237	42	93	189	199	352	807
Link Distance (ft)	335	335		175	175	175		736	736
Upstream Blk Time (%)	16	24	1	4	53	12		110	116
Queuing Penalty (veh)	59	90		3	12	147		260	200
Storage Bay Dist (ft)									
Storage Blk Time (%)		36	29		1			0	56
Queuing Penalty (veh)		151	96		1			0	74

Intersection: 9: N.Main St. & Parkside Dr

Movement	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	T	TR					
Maximum Queue (ft)	986	979	920	677					
Average Queue (ft)	973	933	249	167					
95th Queue (ft)	982	938	694	446					
Link Distance (ft)	966	966	966	966					
Upstream Blk Time (%)	48	1	0	0					
Queuing Penalty (veh)	288	4	1	0					
Storage Bay Dist (ft)									
Storage Blk Time (%)		1							
Queuing Penalty (veh)		7							

Intersection: 10: Parkside Dr & Lawrence Way On-ramp

Movement	EB	EB	EB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	T	TR			
Maximum Queue (ft)	97	102	74	77	310	467			
Average Queue (ft)	36	50	4	5	37	432			
95th Queue (ft)	79	85	43	45	187	458			
Link Distance (ft)			177	177	383	383			
Upstream Blk Time (%)			0	0	0	58			
Queuing Penalty (veh)			1	1	1	376			
Storage Bay Dist (ft)			125				100		
Storage Blk Time (%)		0	0	0			1	74	
Queuing Penalty (veh)		0	0	1			6	206	

Queuing and Blocking Report

12/22/2021

Intersection: 11: N.Broadway & Parkside Dr

Movement	EB	EB	WB	WB	WB	B234	B234	NB	NB	R
Directions Served	T	TR	L	T	T	T	T	L	R	
Maximum Queue (ft)	370	396	188	260	353	394	412	485	125	
Average Queue (ft)	179	182	37	83	319	159	394	445	68	
95th Queue (ft)	334	344	116	234	338	444	440	584	164	
Link Distance (ft)	383	383		242	242	392	392	471		
Upstream Blk Time (%)	1	1	4	92	0	54	34			
Queuing Penalty (veh)	4	5	9	220	0	129	266			
Storage Bay Dist (ft)			165					100		
Storage Blk Time (%)			0	4				76	0	
Queuing Penalty (veh)			0	2				92	2	

Intersection: 12: N.Civic Dr & Parkside Dr

Movement	EB	EB	EB	B234	B234	NB	NB	NB	NB	SB	SB
Directions Served	L	LR	R	T	T	L	T	T	T	TR	TR
Maximum Queue (ft)	200	272	228	11	8	195	301	307	644	661	
Average Queue (ft)	113	131	84	0	0	190	262	113	470	482	
95th Queue (ft)	205	234	168	10	8	219	330	271	808	822	
Link Distance (ft)		392	392	242	242		259	259	707	707	
Upstream Blk Time (%)		0				68	1	25	31		
Queuing Penalty (veh)		1				456	4	0	0		
Storage Bay Dist (ft)	210					170					
Storage Blk Time (%)	1	2				84	1				
Queuing Penalty (veh)	3	5				427	2				

Queuing and Blocking Report

12/22/2021

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NB	NB	TR	NB	NB	B148	B148	SB	SB	SB	SB	NE	NE
Directions Served	T	TR	R>	T	T	T	T	T	T	R	R	L	L
Maximum Queue (ft)	378	375	354	313	302	296	307	304	73	58	426	474	
Average Queue (ft)	344	343	289	266	248	159	167	167	17	6	200	224	
95th Queue (ft)	361	361	411	348	317	336	388	387	186	97	411	440	
Link Distance (ft)	268	268	268	221	221	221	716	716	716	716	578	578	
Upstream Blk Time (%)	84	84	24	40	35	6	2	2	1	1	1	1	
Queuing Penalty (veh)	555	557	161	266	232	39	8	9	4		5	8	
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													15

Intersection: 13: California Blvd./Lawrence Way & N.Main St. & Pine St.

Movement	NE	NE	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR
Directions Served													
Maximum Queue (ft)													
Average Queue (ft)													
95th Queue (ft)													
Link Distance (ft)													
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

Intersection: 14: N.Broadway & Pine St.

Movement	EB	WB	NB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Directions Served													
Maximum Queue (ft)													
Average Queue (ft)													
95th Queue (ft)													
Link Distance (ft)													
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)													
Storage Blk Time (%)													
Queuing Penalty (veh)													

12/22/2021

Intersection: 15: N.Civic Dr & Pine St.

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB	SB
	L	R	L	T	T	T	T	T	T	TR
Directions Served										
Maximum Queue (ft)	480	95	194	582	556	252	277			
Average Queue (ft)	204	34	71	497	399	116	128			
95th Queue (ft)	580	94	210	704	726	243	260			
Link Distance (ft)	728			532	532	239	289			
Upstream Blk Time (%)	7	73	10	0	0	1	3			
Queuing Penalty (veh)	17			0	0	1	3			
Storage Bay Dist (ft)		70	170							
Storage Blk Time (%)	43	1	0	81						
Queuing Penalty (veh)	36	1	1	31						

Intersection: 16: California Blvd. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB	SB
	LT	R	LT	R	L	T	TR	L	T	TR
Directions Served										
Maximum Queue (ft)	308	75	180	93	195	481	490	176	242	251
Average Queue (ft)	238	67	74	18	115	422	442	52	113	107
95th Queue (ft)	353	99	154	64	220	554	535	138	239	242
Link Distance (ft)	265		304			444	444		578	578
Upstream Blk Time (%)	37				31	47				
Queuing Penalty (veh)	0				0	0				
Storage Bay Dist (ft)		50		70	170			200		
Storage Blk Time (%)	56	21	12	0	3	29	1	3		
Queuing Penalty (veh)	147	42	3	0	16	39	6	2		

Intersection: 17: N.Main St. & Pringle Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB	SB	B148	B148
	LT	R	L	TR	L	T	TR	UL	T	TR	T	T
Directions Served												
Maximum Queue (ft)	319	75	92	65	196	213	60	301	304	221	209	
Average Queue (ft)	139	54	38	34	161	180	50	202	154	67	44	
95th Queue (ft)	333	96	111	76	189	210	73	376	335	228	178	
Link Distance (ft)	304		191		145	145		221	221	268	268	
Upstream Blk Time (%)	13		3		36	44		34	6	6	0	
Queuing Penalty (veh)	36		0		284	344		174	30	29	1	
Storage Bay Dist (ft)		50		40			35					
Storage Blk Time (%)	42	14		8	50		74	5				
Queuing Penalty (veh)	67	8		71	34		358	4				

12/22/2021

Intersection: 18: N.Main St. & Central Rd

Movement	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB
	LR	T	TR	L	T	T	T	T	T	T
Directions Served										
Maximum Queue (ft)	400	556	551	68	122	115				
Average Queue (ft)	260	456	470	22	14	21				
95th Queue (ft)	494	690	677	57	70	78				
Link Distance (ft)	777	506	506		145	145				
Upstream Blk Time (%)		40	57	0	0	0				
Queuing Penalty (veh)		0	0		1	0				
Storage Bay Dist (ft)				50						
Storage Blk Time (%)				8	0					
Queuing Penalty (veh)				39	0					

Intersection: 19: N.Broadway & Central Rd

Movement	EB	EB	NB	NB	SB	SB	SB	SB	SB	SB
	LR	L	T	TR						
Directions Served										
Maximum Queue (ft)	444	74	525	15						
Average Queue (ft)	225	28	489	1						
95th Queue (ft)	534	87	532	8						
Link Distance (ft)	777		471	960						
Upstream Blk Time (%)	1		99							
Queuing Penalty (veh)	0		0							
Storage Bay Dist (ft)		50								
Storage Blk Time (%)		0	98							
Queuing Penalty (veh)		1	32							

Zone Summary

Zone wide Queuing Penalty: 10112



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Appendix D

Signal Warrant Worksheets



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Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & Hillside Drive
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 5

	Major Street	Minor Street
Street Name	Parkside Drive	Hillside Drive
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.62 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 193 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1132 vph

Condition B

The plotted point falls above the curve

No

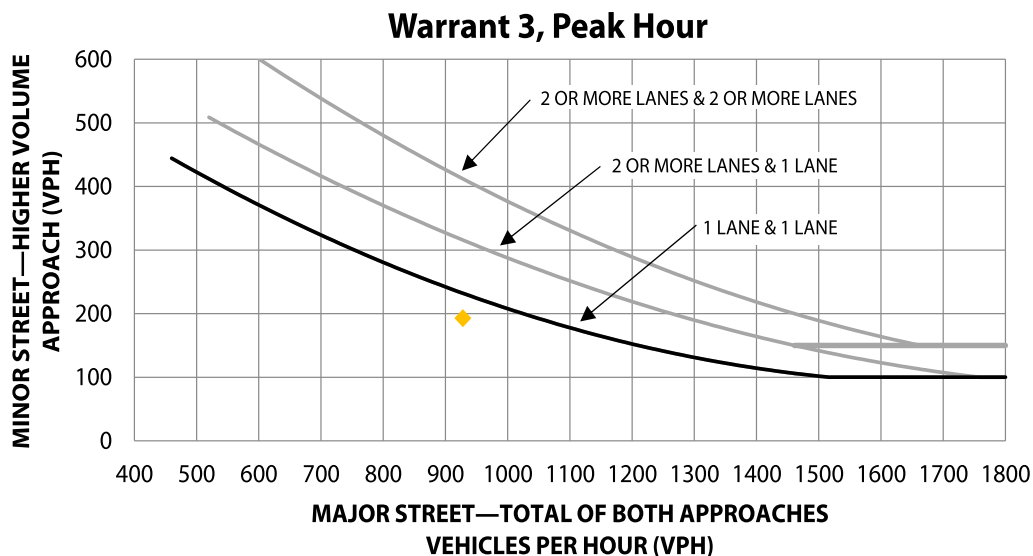
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & Hillside Drive
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 5

	Major Street	Minor Street
Street Name	Parkside Drive	Hillside Drive
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 1-CCC AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.62 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 193 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1143 vph

Condition B

The plotted point falls above the curve

No

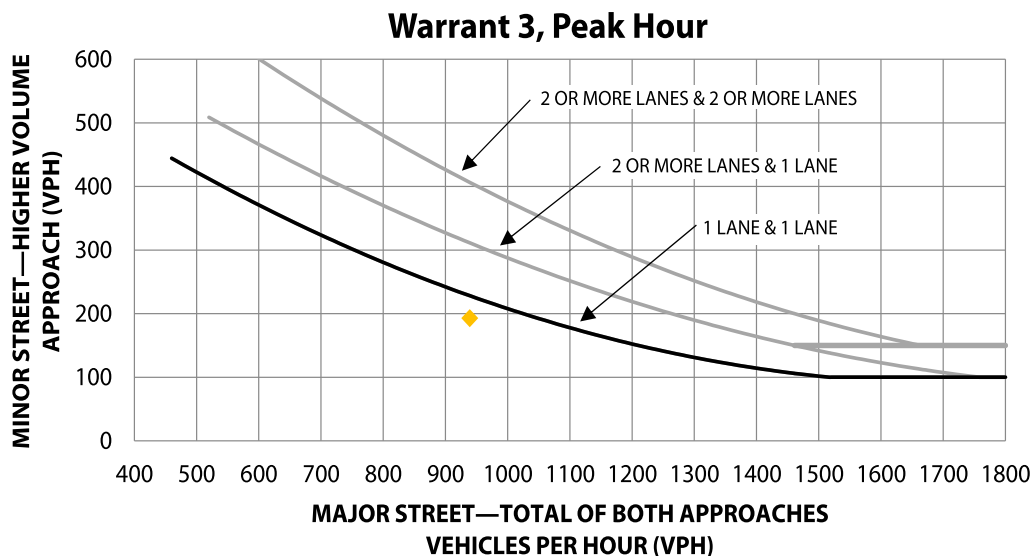
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & Hillside Drive
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 5

	Major Street	Minor Street
Street Name	Parkside Drive	Hillside Drive
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 2-HRC AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.63 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 193 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1164 vph

Condition B

The plotted point falls above the curve

No

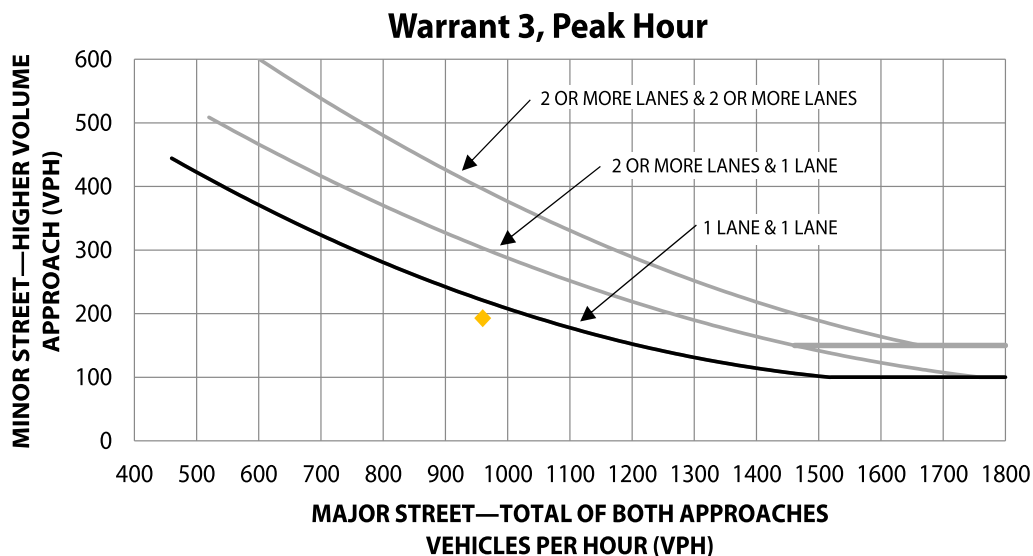
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & Hillside Drive
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 5

	Major Street	Minor Street
Street Name	Parkside Drive	Hillside Drive
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 3-RRC AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.62 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 193 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1156 vph

Condition B

The plotted point falls above the curve

No

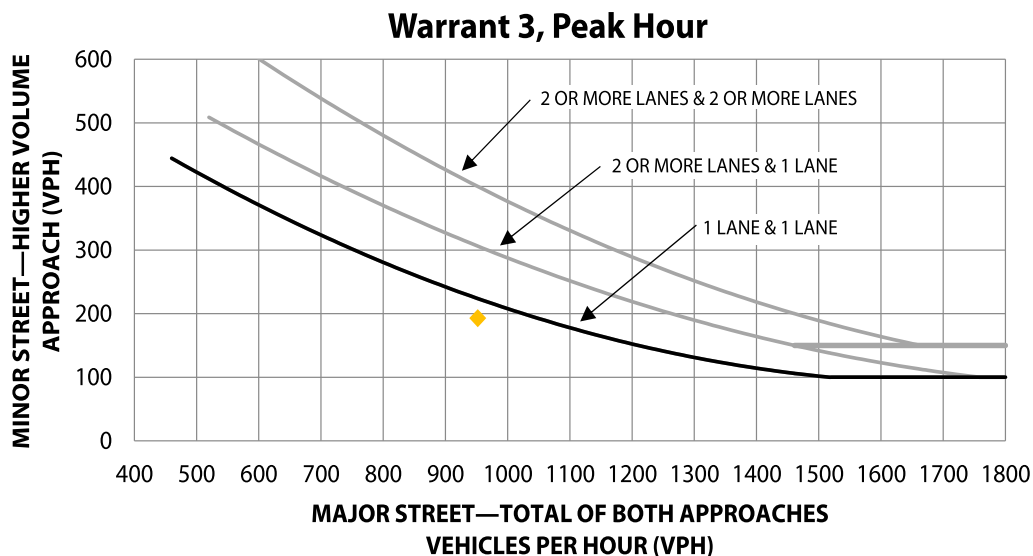
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & Hillside Drive
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 5

	Major Street	Minor Street
Street Name	Parkside Drive	Hillside Drive
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 2.97 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 447 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1088 vph

Condition B

The plotted point falls above the curve

Yes

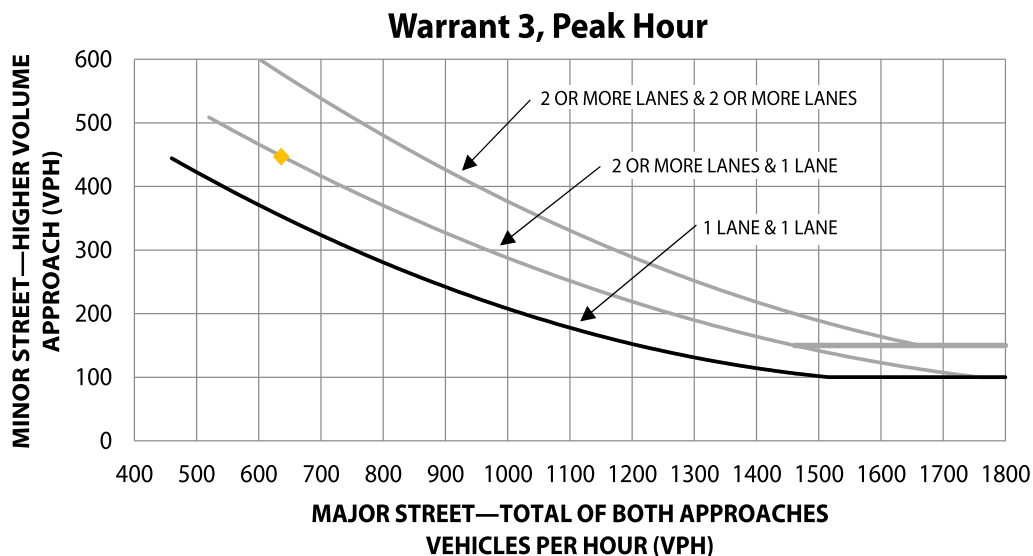
Not Met

Not Met

Met

Met

Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & Hillside Drive
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 5

	Major Street	Minor Street
Street Name	Parkside Drive	Hillside Drive
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 2.75 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 433 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1393 vph

Condition B

The plotted point falls above the curve

Yes

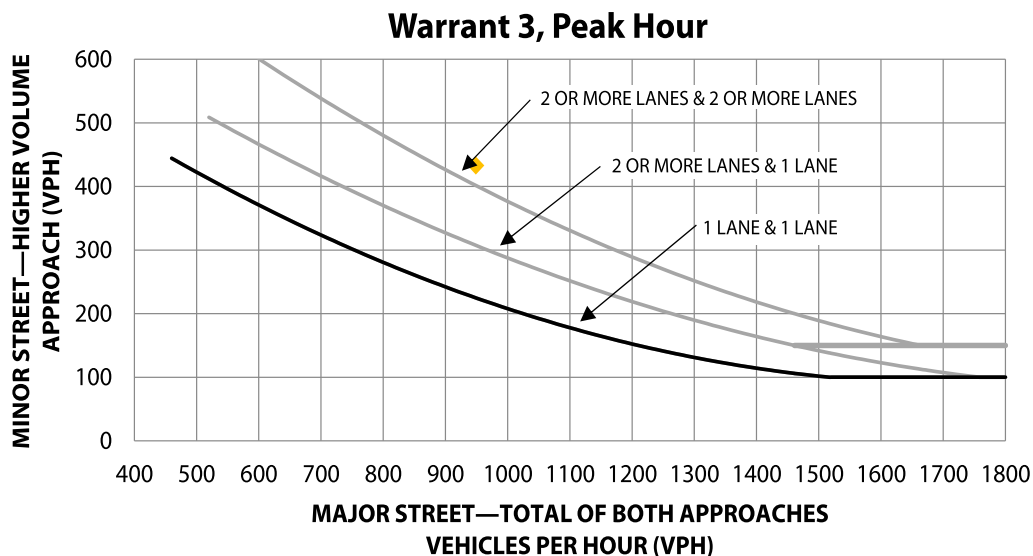
Not Met

Not Met

Met

Met

Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & Buena Vista Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 6

	Major Street	Minor Street
Street Name	Parkside Drive	Buena Vista Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

Yes

Condition A: Met when conditions A1, A2, and A3 are met

Met

Condition A1

Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 7.85 vehicle-hours

Condition A2

Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 523 vph

Condition A3

Met

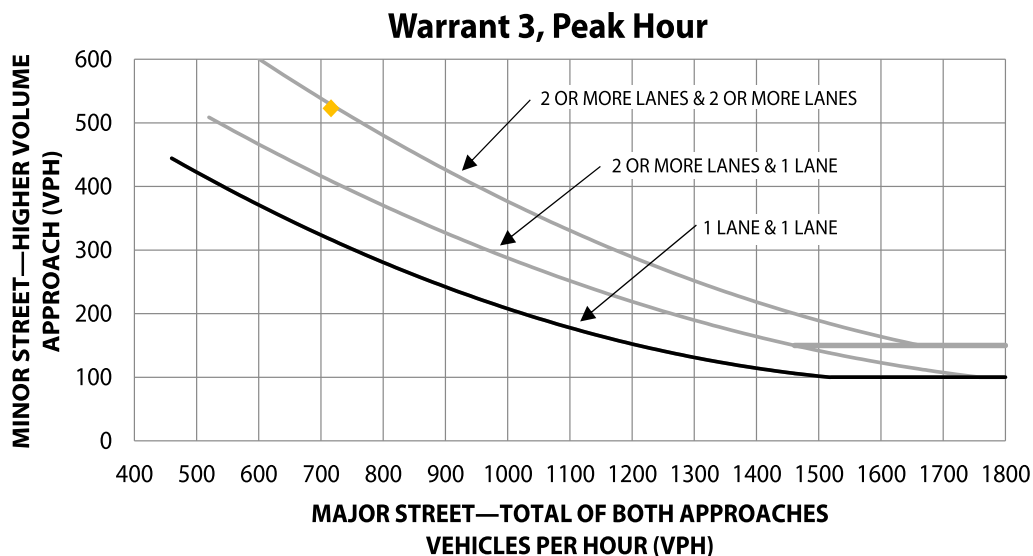
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1251 vph

Condition B

Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & Buena Vista Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 6

	Major Street	Minor Street
Street Name	Parkside Drive	Buena Vista Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 1.39 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 447 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1088 vph

Condition B

The plotted point falls above the curve

Yes

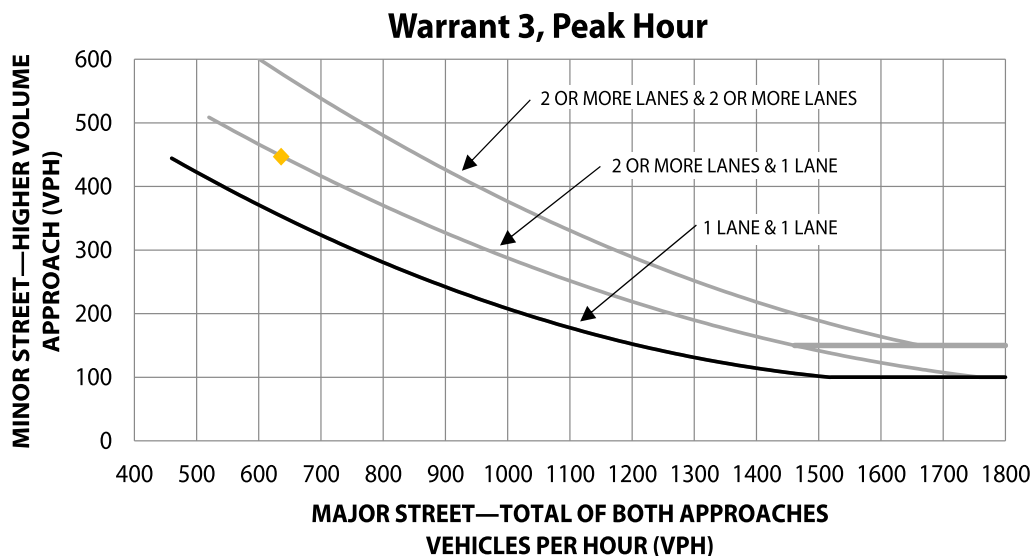
Not Met

Not Met

Met

Met

Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & San Juan Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 7

	Major Street	Minor Street
Street Name	Parkside Drive	San Juan Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 2.7 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 346 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1100 vph

Condition B

The plotted point falls above the curve

Yes

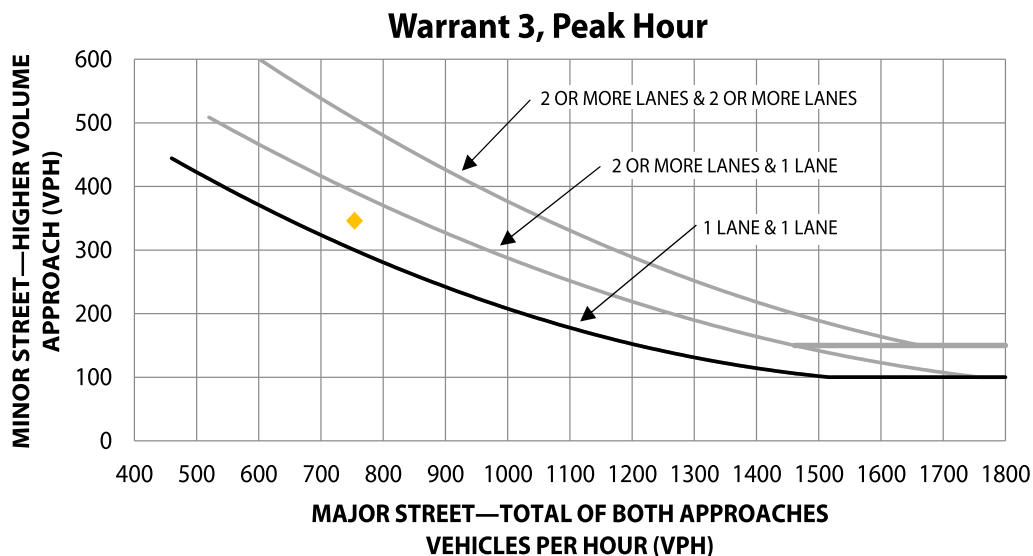
Not Met

Not Met

Met

Met

Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & San Juan Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 7

	Major Street	Minor Street
Street Name	Parkside Drive	San Juan Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) PM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.19 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 69 vph

Condition A3

Met

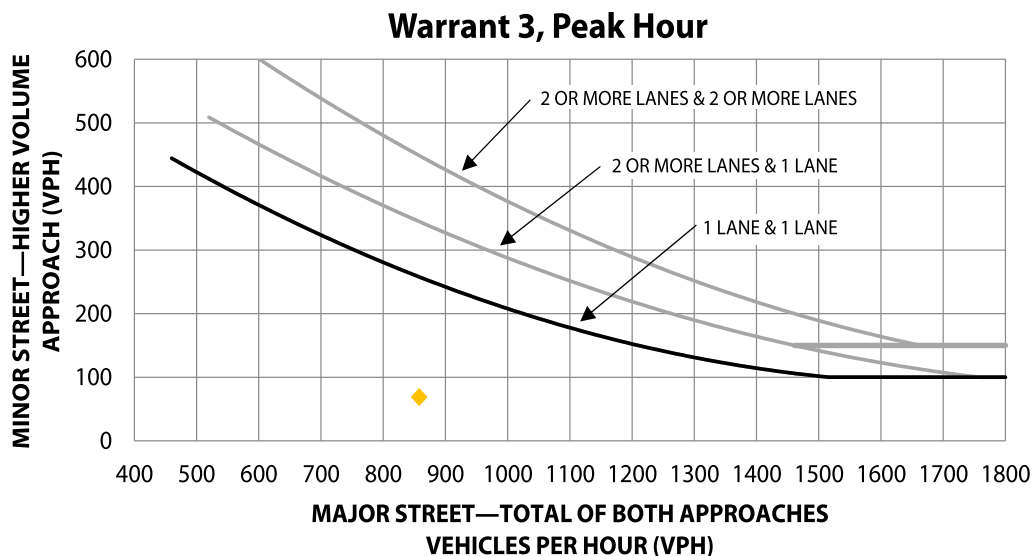
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 927 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & San Juan Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 7

	Major Street	Minor Street
Street Name	Parkside Drive	San Juan Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 1-CCC PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.19 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 69 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 997 vph

Condition B

The plotted point falls above the curve

No

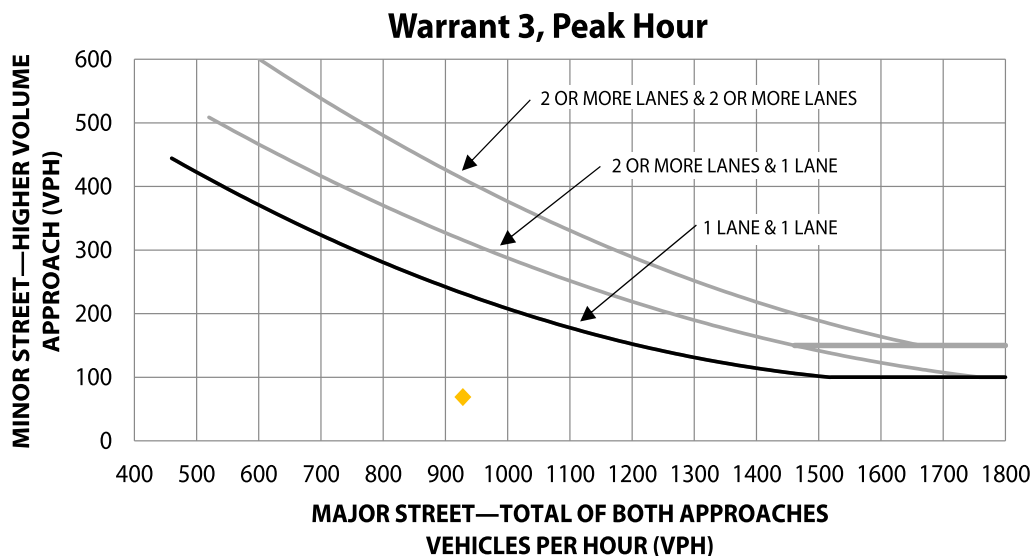
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & San Juan Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 7

	Major Street	Minor Street
Street Name	Parkside Drive	San Juan Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 2-CRH PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.19 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 69 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 952 vph

Condition B

The plotted point falls above the curve

No

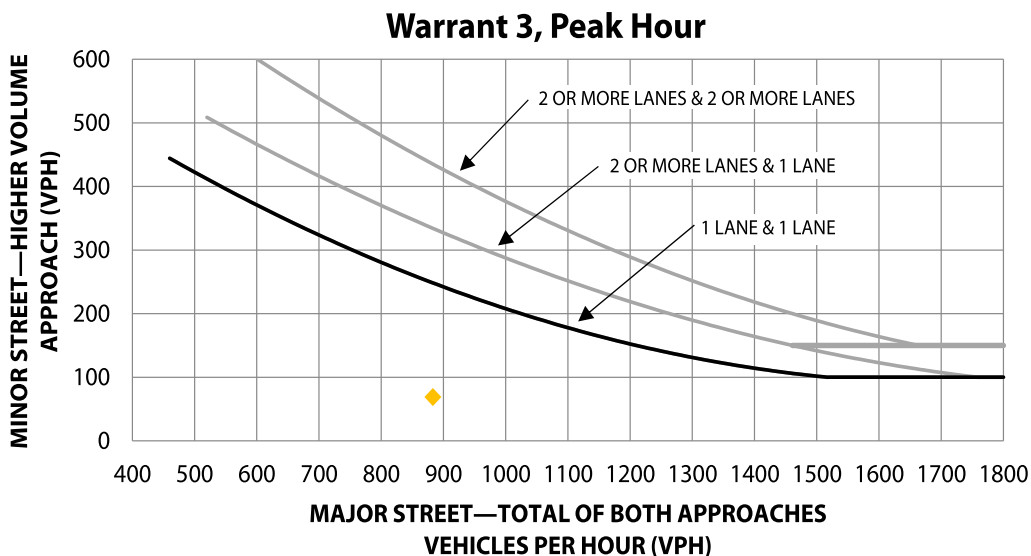
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & San Juan Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 7

	Major Street	Minor Street
Street Name	Parkside Drive	San Juan Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 3-CRR PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.19 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 69 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 948 vph

Condition B

The plotted point falls above the curve

No

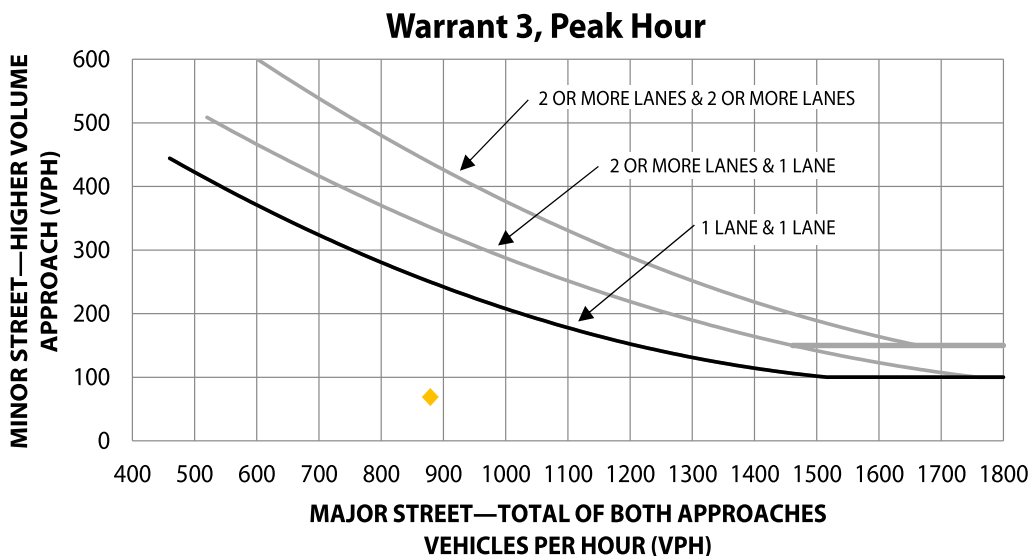
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & San Juan Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 7

	Major Street	Minor Street
Street Name	Parkside Drive	San Juan Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative (No Project) PM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.19 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 71 vph

Condition A3

Met

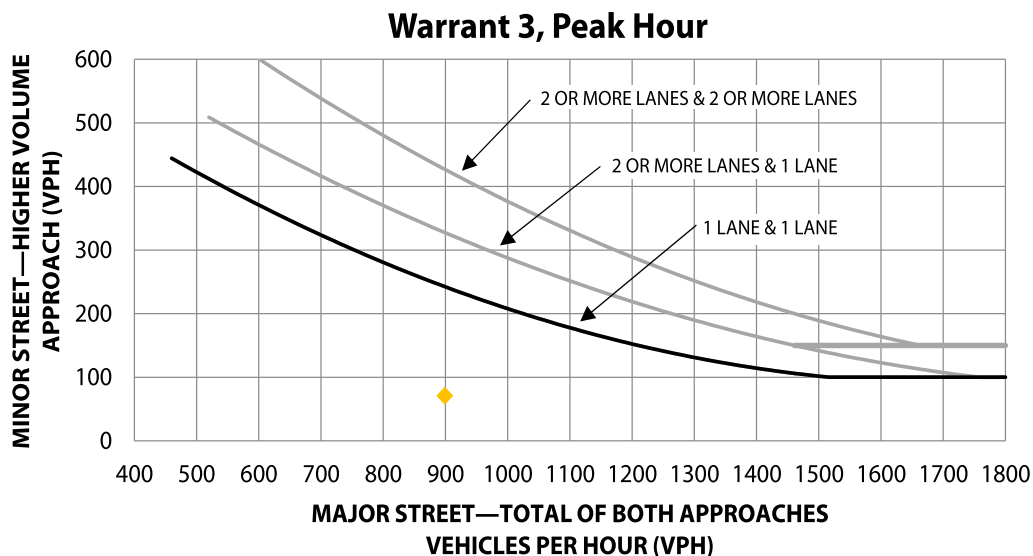
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 970 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & San Juan Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 7

	Major Street	Minor Street
Street Name	Parkside Drive	San Juan Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 1-CCC PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.2 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 71 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1040 vph

Condition B

The plotted point falls above the curve

No

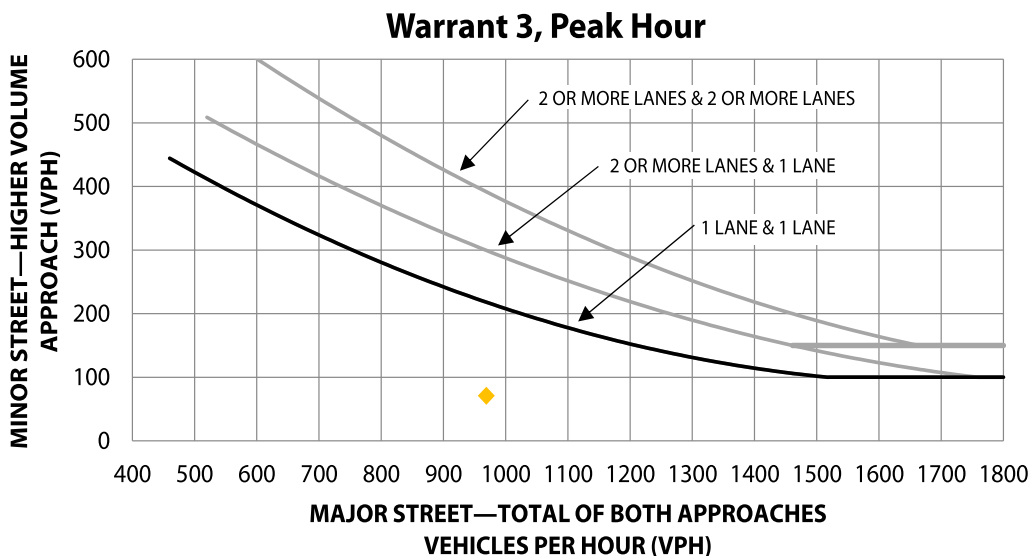
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & San Juan Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 7

	Major Street	Minor Street
Street Name	Parkside Drive	San Juan Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 2-CRH PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.2 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 71 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 995 vph

Condition B

The plotted point falls above the curve

No

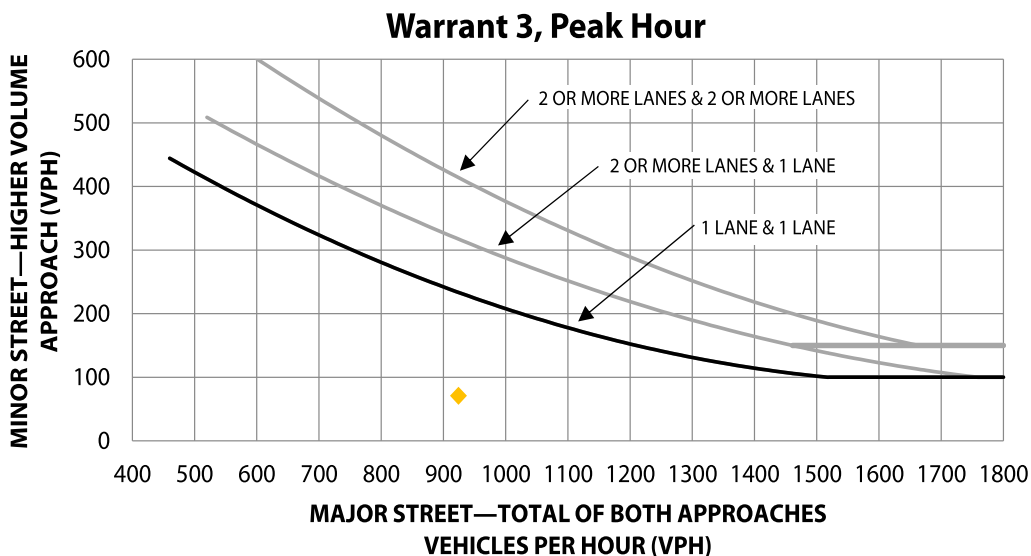
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & San Juan Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 7

	Major Street	Minor Street
Street Name	Parkside Drive	San Juan Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 3-CRR PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.2 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 71 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 991 vph

Condition B

The plotted point falls above the curve

No

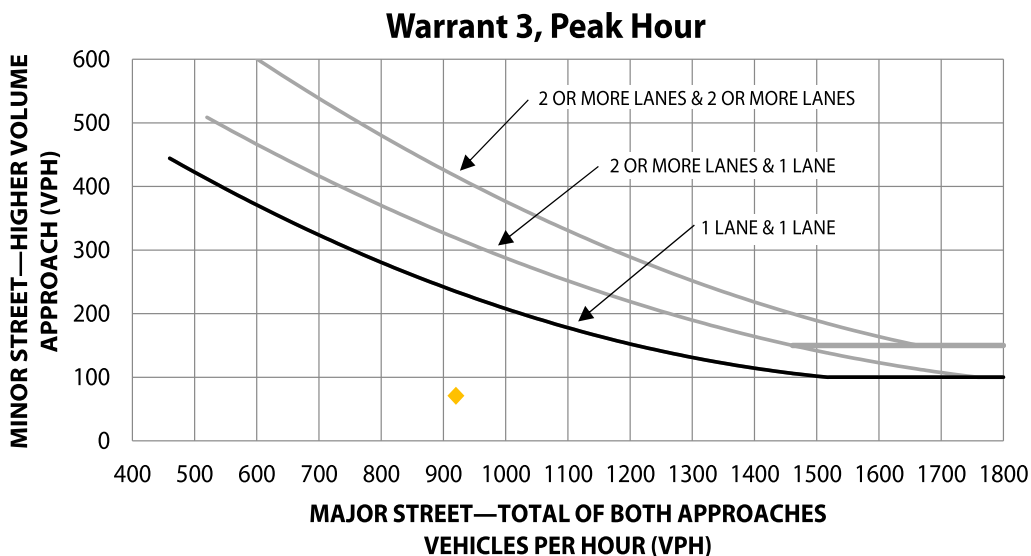
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Parkside Drive & Riviera Ave
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 8

	Major Street	Minor Street
Street Name	Parkside Drive	Riviera Ave
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 3.56 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 145 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1421 vph

Condition B

The plotted point falls above the curve

Yes

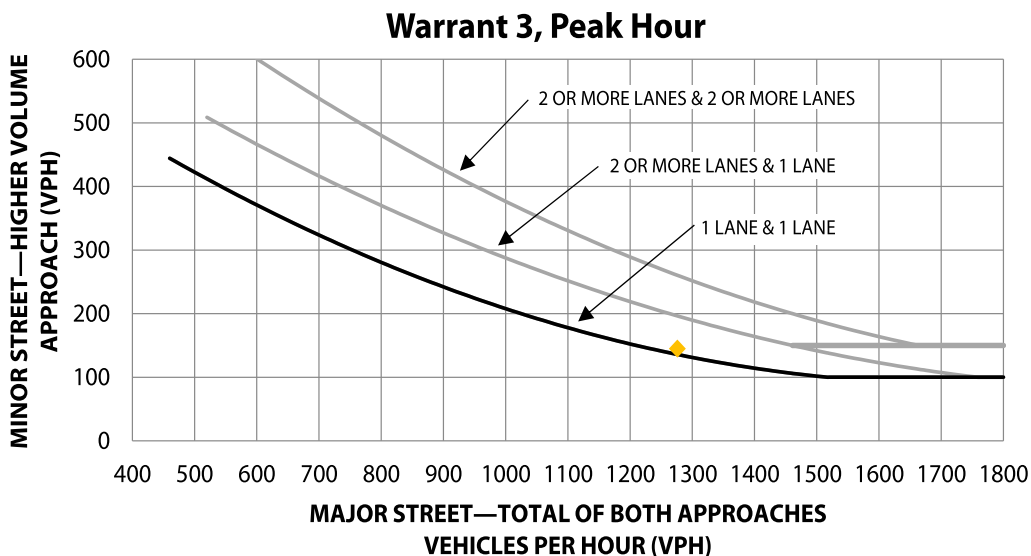
Not Met

Not Met

Met

Met

Met



Warrant 3: Peak-Hour Volumes and Delay

Riviera Ave & Parkside Drive
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 8

	Major Street	Minor Street
Street Name	Riviera Ave	Parkside Drive
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 413 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1431 vph

Condition B

The plotted point falls above the curve

Yes

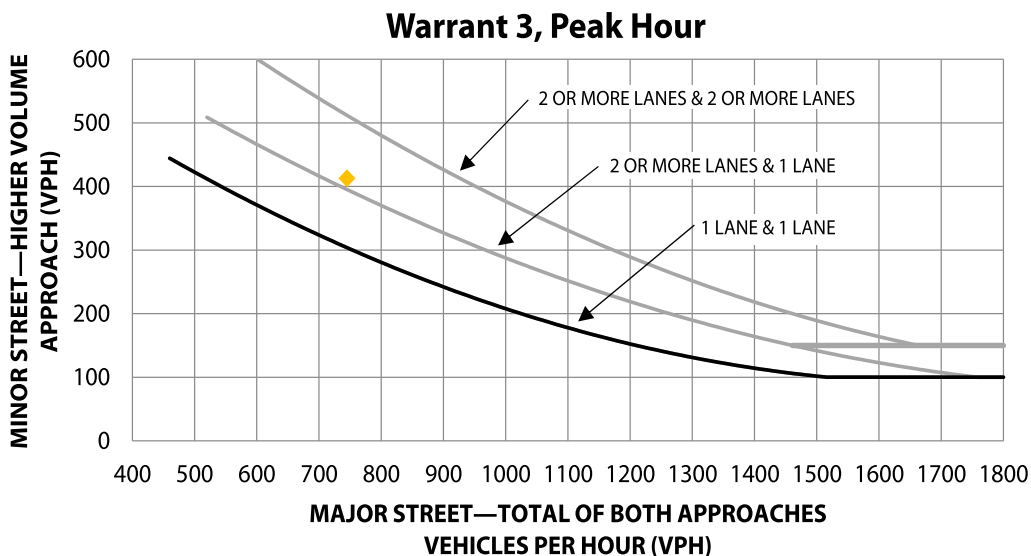
Not Met

Not Met

Met

Met

Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.53 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 175 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 817 vph

Condition B

The plotted point falls above the curve

No

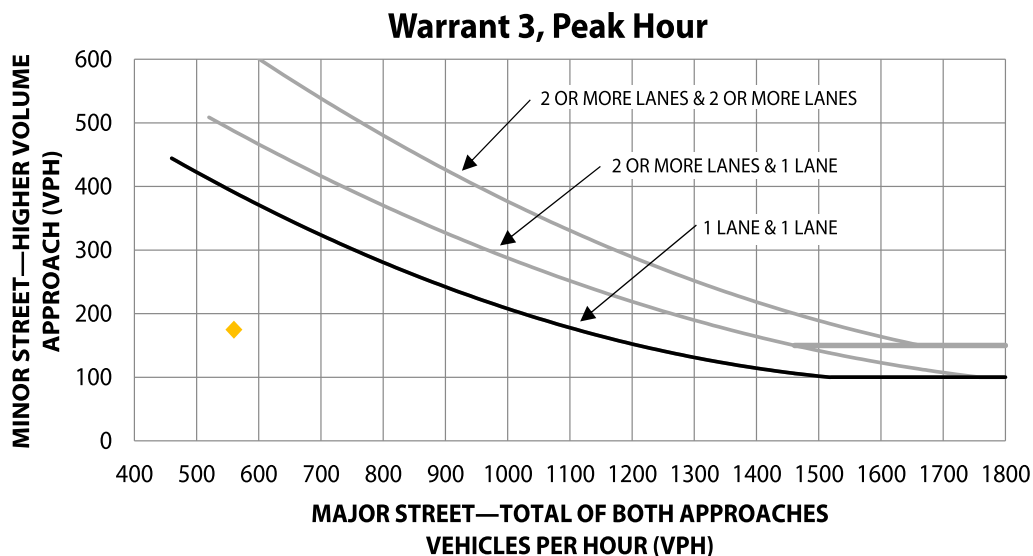
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 1-CCC AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.63 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 191 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 911 vph

Condition B

The plotted point falls above the curve

No

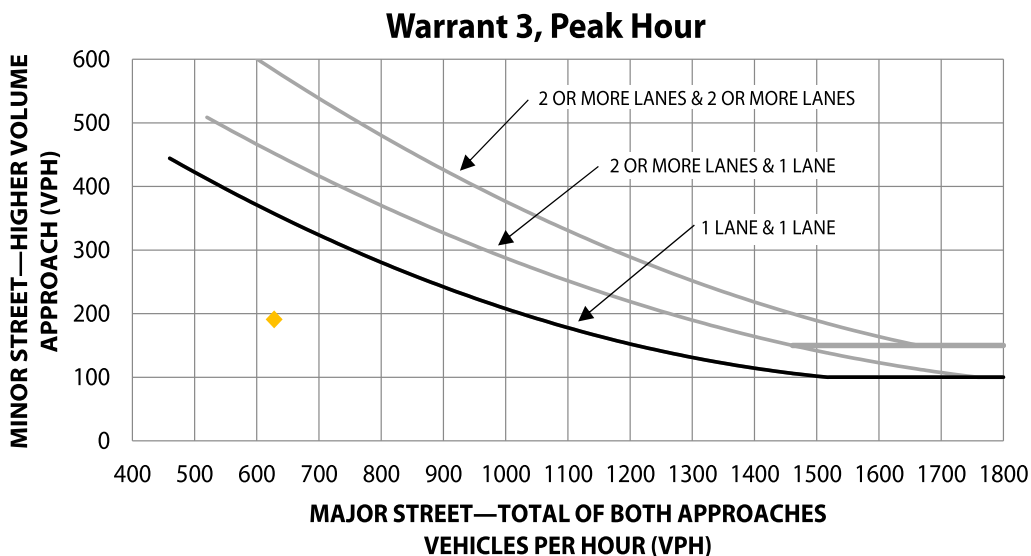
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 2-CRH

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.6 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 185 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 911 vph

Condition B

The plotted point falls above the curve

No

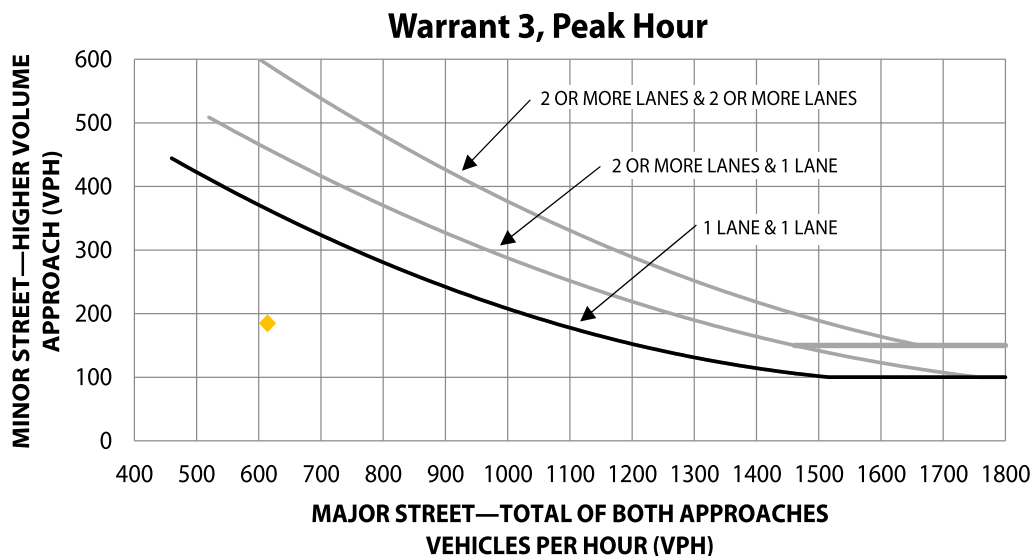
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 3-CRR

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.6 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 185 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 903 vph

Condition B

The plotted point falls above the curve

No

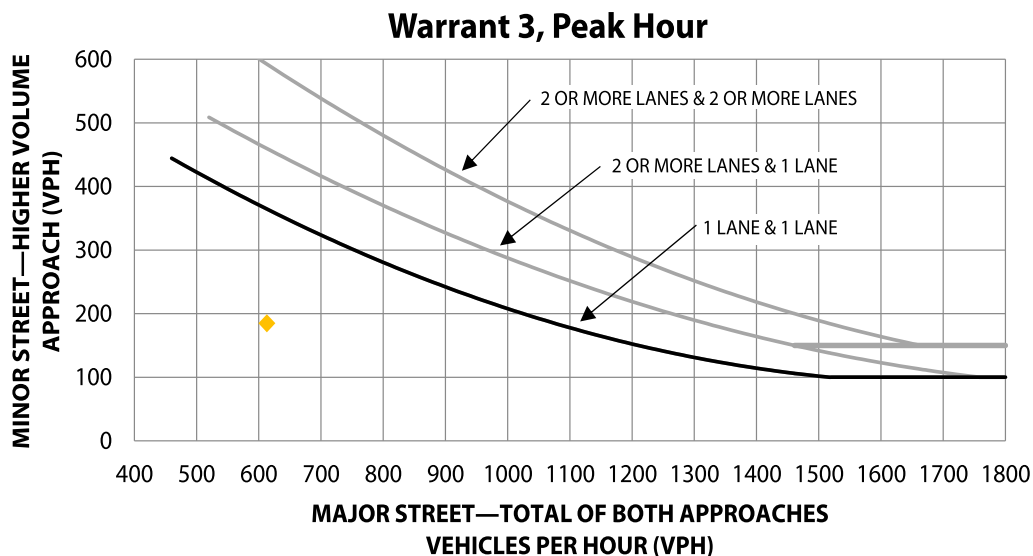
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.86 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 211 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1221 vph

Condition B

The plotted point falls above the curve

No

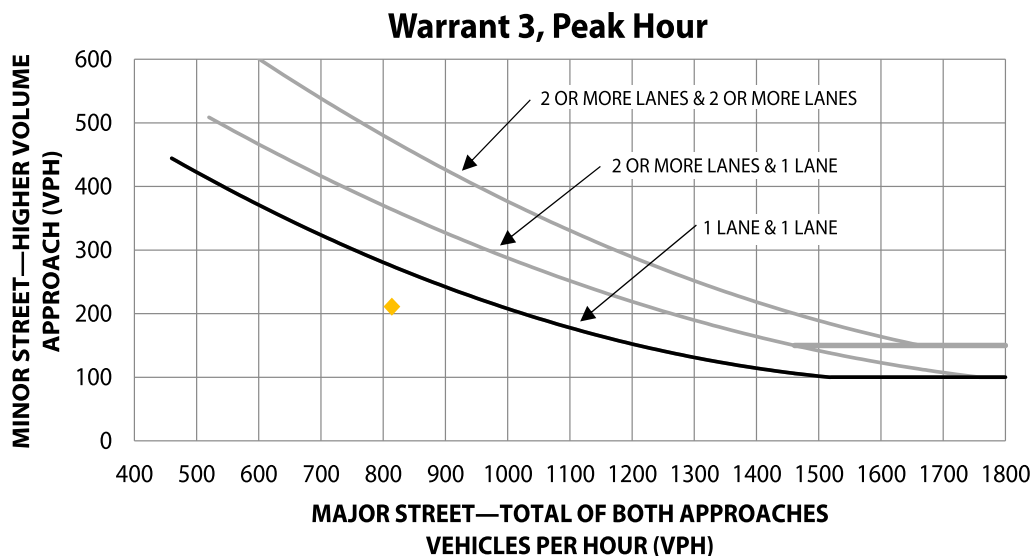
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 1-CCC PM

Warrant 3 Met?: Met when either Condition A or B is met

Yes

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 1.41 vehicle-hours

Condition A2

Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 270 vph

Condition A3

Met

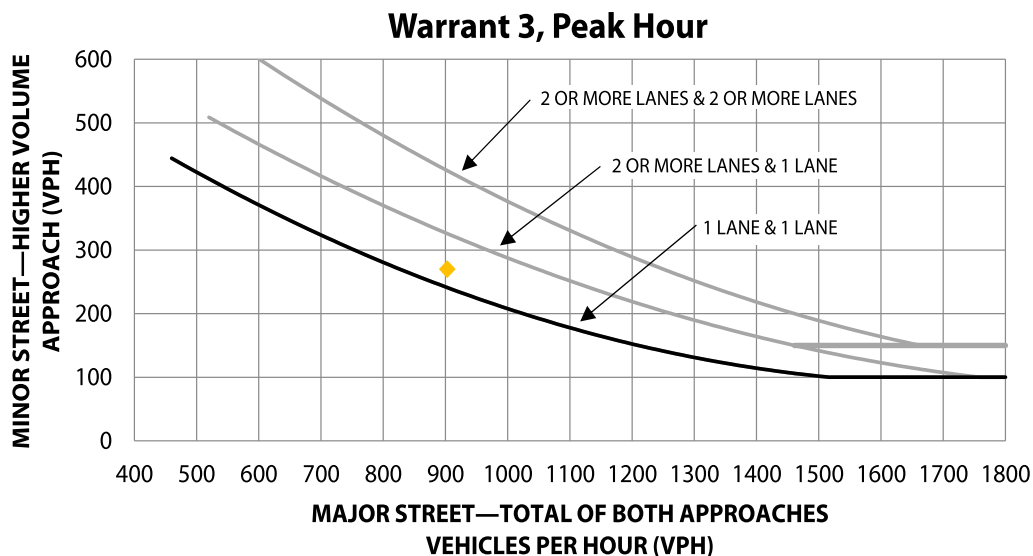
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1375 vph

Condition B

Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 2-HRC PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 1.04 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 229 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1317 vph

Condition B

The plotted point falls above the curve

No

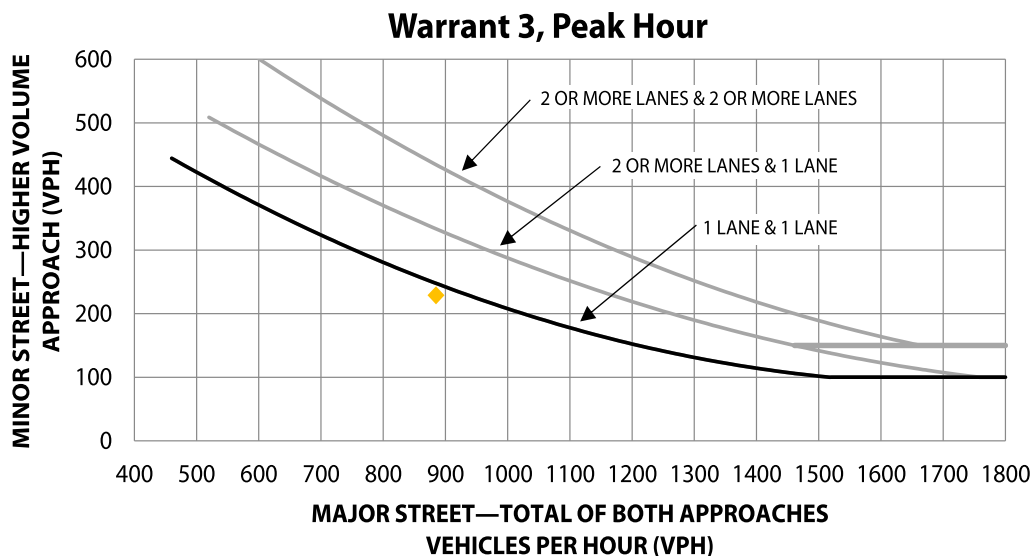
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 3-RRC PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 1.01 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 225 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1313 vph

Condition B

The plotted point falls above the curve

No

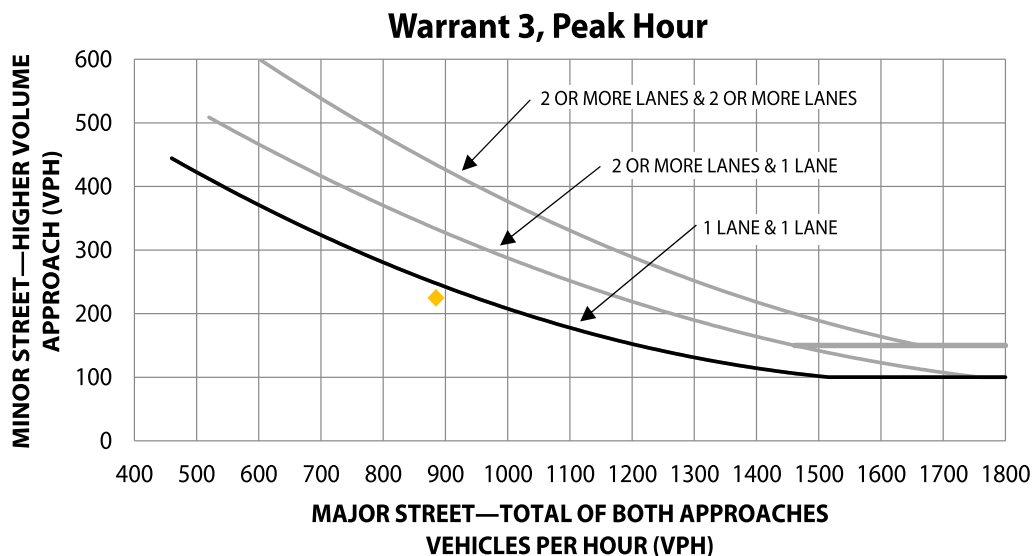
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.59 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 181 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 932 vph

Condition B

The plotted point falls above the curve

No

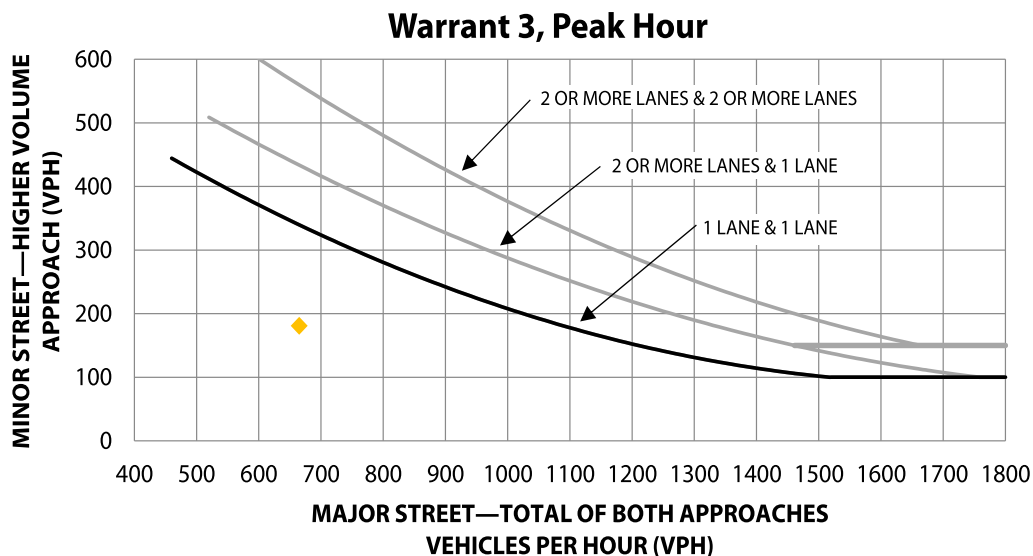
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 1-CCC AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.7 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 197 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1026 vph

Condition B

The plotted point falls above the curve

No

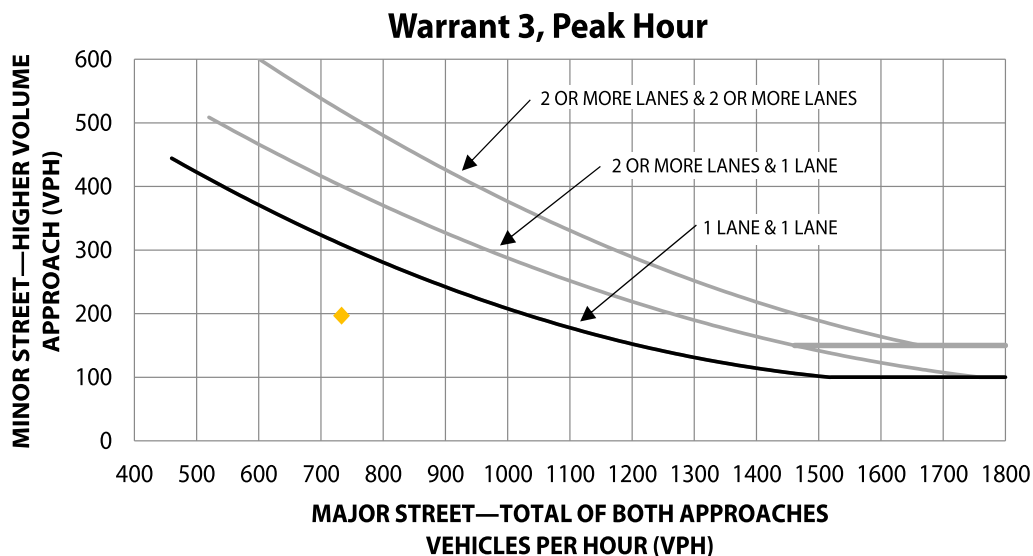
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 2-CRH AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.92 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 191 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1026 vph

Condition B

The plotted point falls above the curve

No

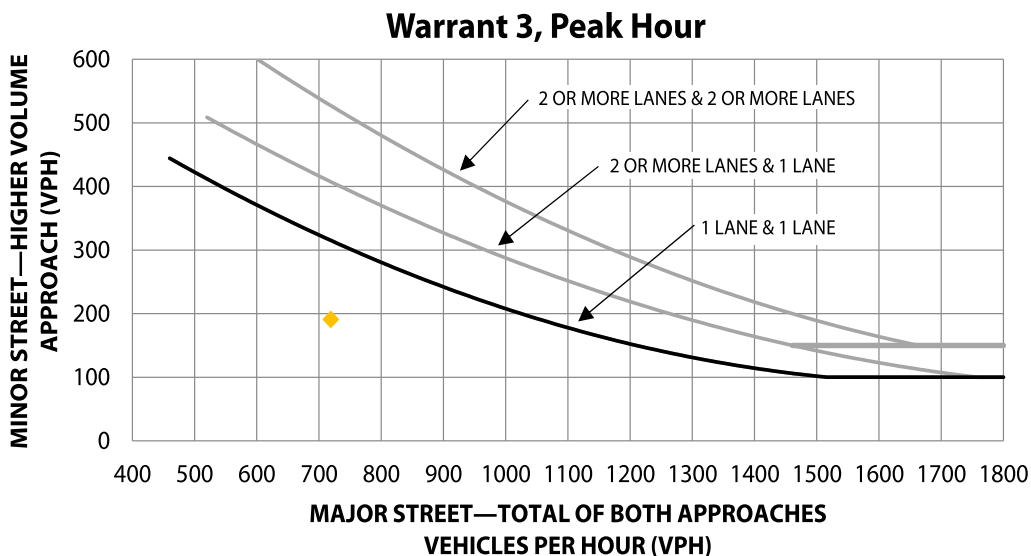
Not Met

Not Met

Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000?

No

Date of Count:

2021 Estimate

Scenario:

Cumulative plus Scenario 3-CRR AM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.92 vehicle-hours

Condition A2

Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 191 vph

Condition A3

Met

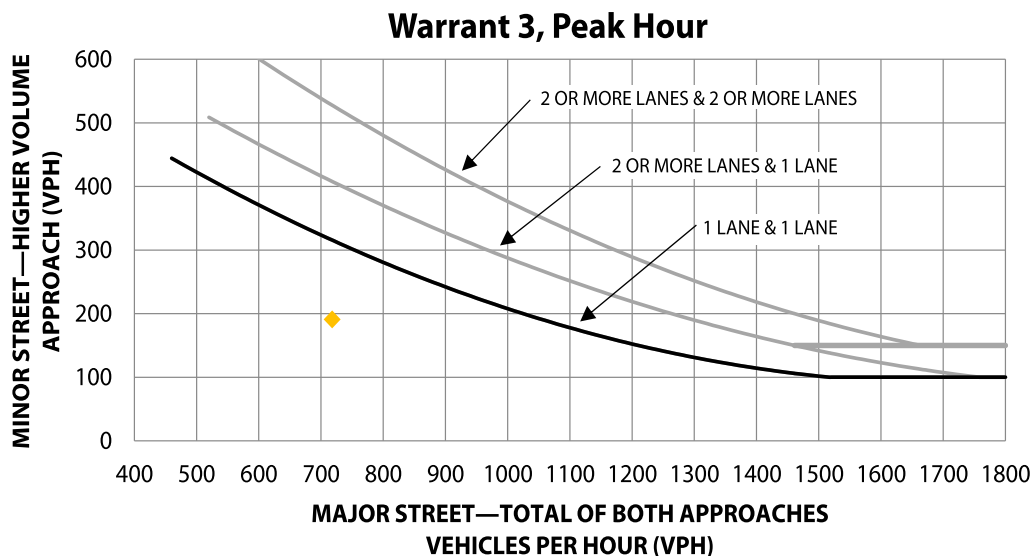
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1018 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

N Broadway & Pine St
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 14

	Major Street	Minor Street
Street Name	N Broadway	Pine St
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative (No Project) PM

Warrant 3 Met?: Met when either Condition A or B is met

Yes

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 1.06 vehicle-hours

Condition A2

Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 225 vph

Condition A3

Met

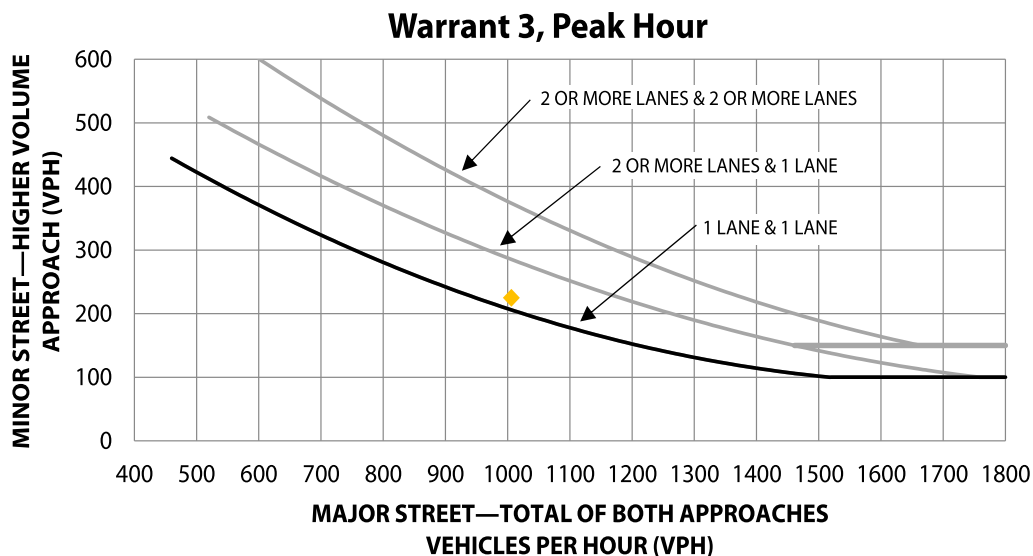
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1434 vph

Condition B

Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

N Main St & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 18

	Major Street	Minor Street
Street Name	N Main St	Central Rd
Direction	N-S	E-W
Number of Lanes	2	1
Approach Speed	30	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.21 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 51 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1561 vph

Condition B

The plotted point falls above the curve

No

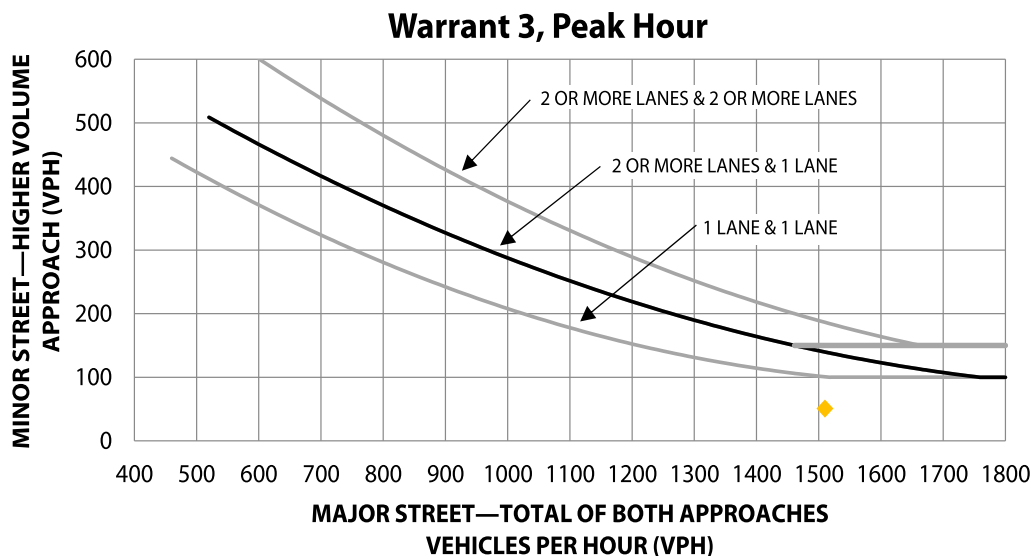
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Main St & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 18

	Major Street	Minor Street
Street Name	N Main St	Central Rd
Direction	N-S	E-W
Number of Lanes	2	1
Approach Speed	30	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near Term plus Scenario 1-CCC AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.28 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 51 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1809 vph

Condition B

The plotted point falls above the curve

No

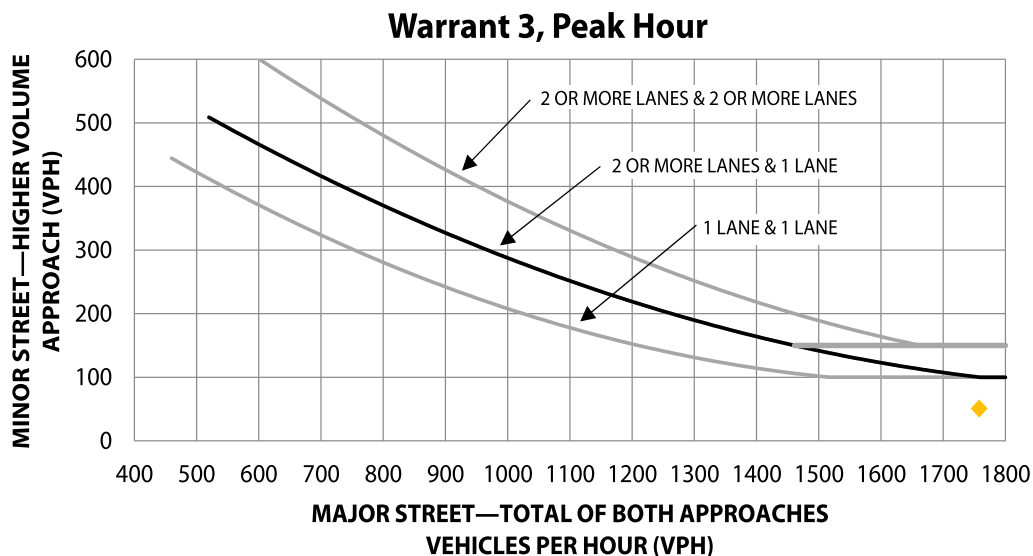
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Main St & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 18

	Major Street	Minor Street
Street Name	N Main St	Central Rd
Direction	N-S	E-W
Number of Lanes	2	1
Approach Speed	30	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near Term plus Scenario 2-CRH AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.23 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 51 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1647 vph

Condition B

The plotted point falls above the curve

No

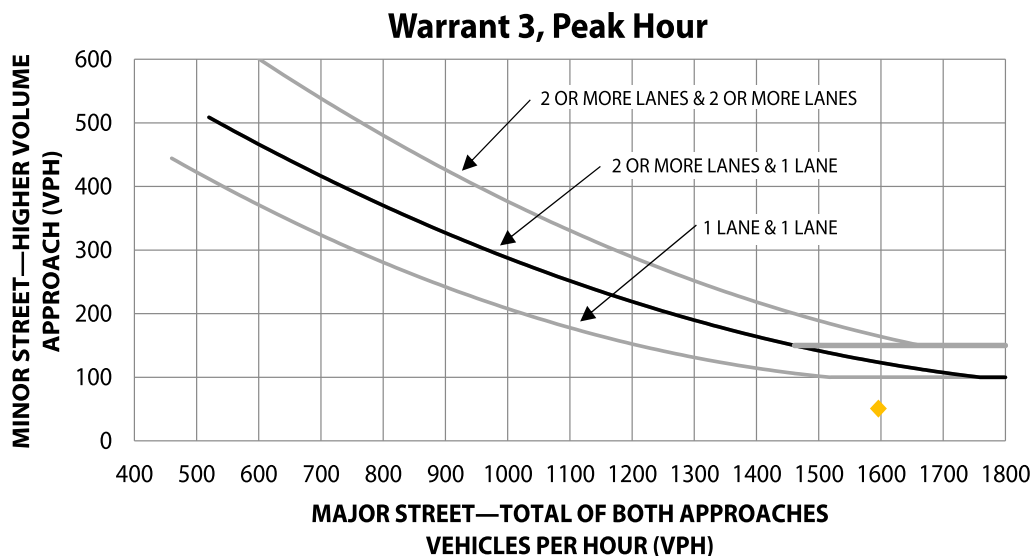
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Main St & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 18

	Major Street	Minor Street
Street Name	N Main St	Central Rd
Direction	N-S	E-W
Number of Lanes	2	1
Approach Speed	30	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near Term plus Scenario 3-CRR AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.22 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 51 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1593 vph

Condition B

The plotted point falls above the curve

No

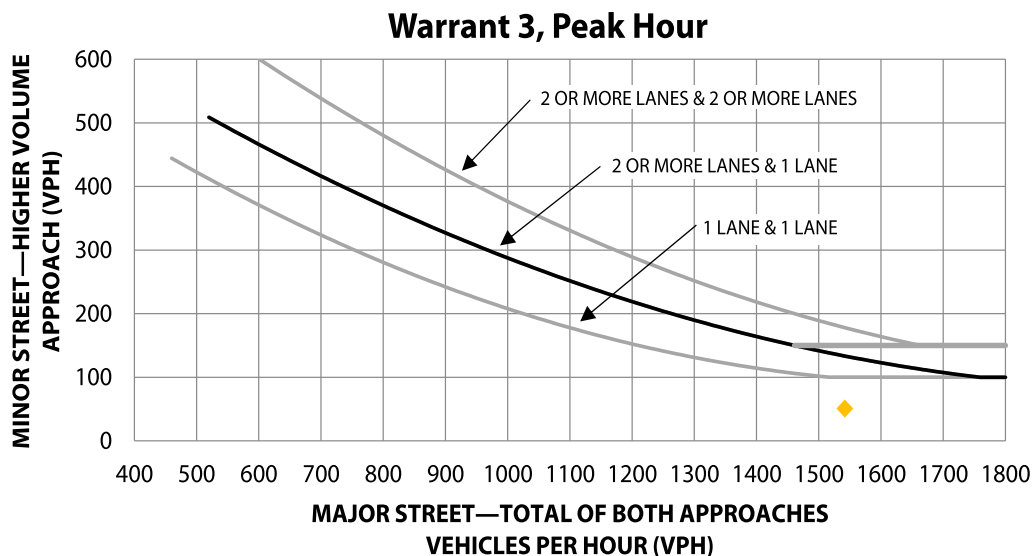
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Main St & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 18

	Major Street	Minor Street
Street Name	N Main St	Central Rd
Direction	N-S	E-W
Number of Lanes	2	1
Approach Speed	30	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 1.26 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 138 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 2047 vph

Condition B

The plotted point falls above the curve

Yes

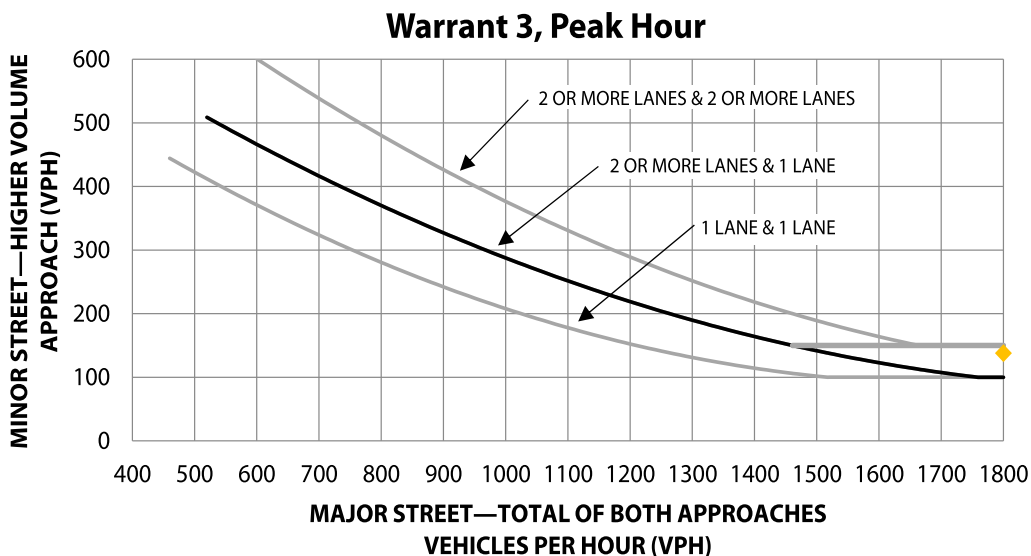
Not Met

Not Met

Met

Met

Met



Warrant 3: Peak-Hour Volumes and Delay

N Main St & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 18

	Major Street	Minor Street
Street Name	N Main St	Central Rd
Direction	N-S	E-W
Number of Lanes	2	1
Approach Speed	30	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.35 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 54 vph

Condition A3

Met

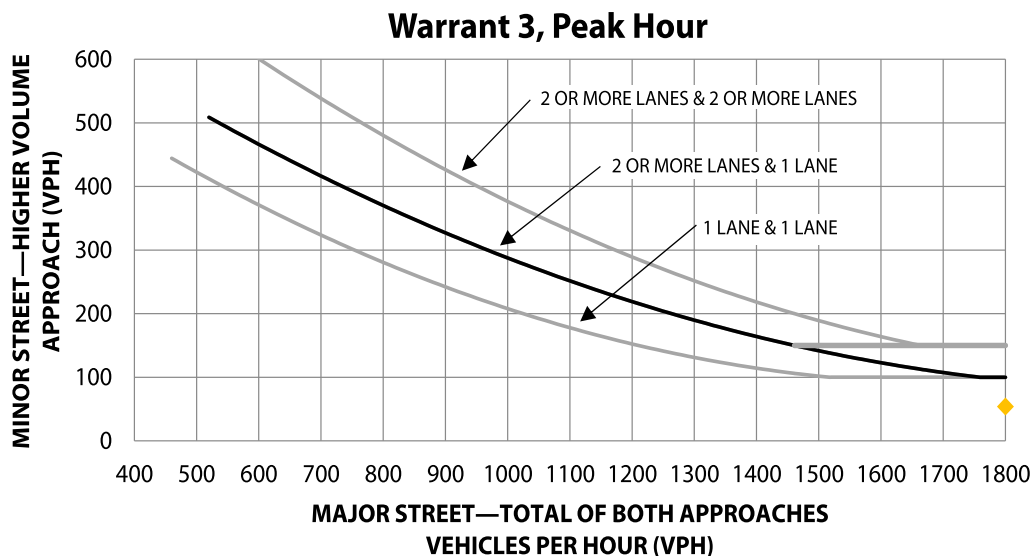
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1950 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

N Main St & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 18

	Major Street	Minor Street
Street Name	N Main St	Central Rd
Direction	N-S	E-W
Number of Lanes	2	1
Approach Speed	30	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 1-CCC AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.53 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 54 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 2198 vph

Condition B

The plotted point falls above the curve

No

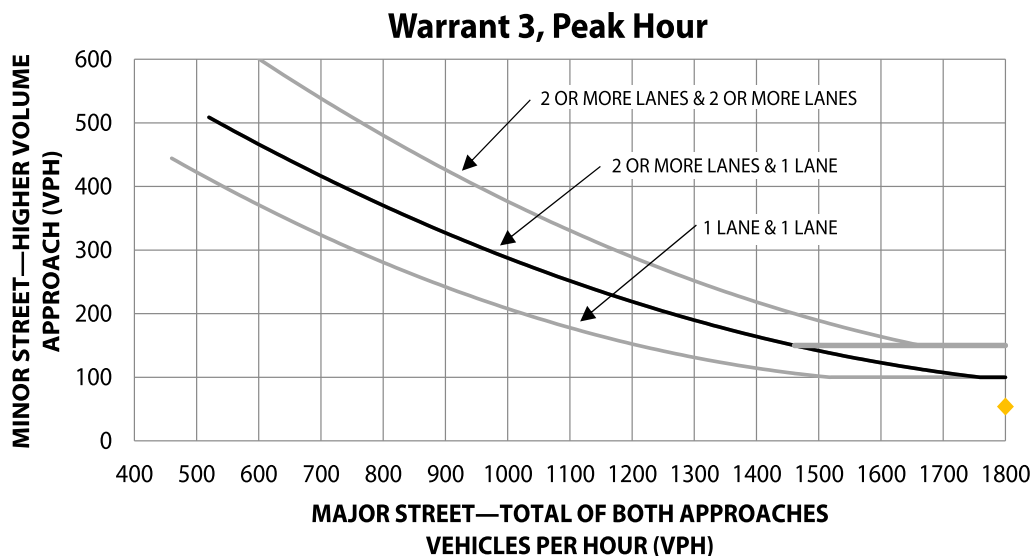
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Main St & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 18

	Major Street	Minor Street
Street Name	N Main St	Central Rd
Direction	N-S	E-W
Number of Lanes	2	1
Approach Speed	30	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 2-CRH AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.4 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 54 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 2036 vph

Condition B

The plotted point falls above the curve

No

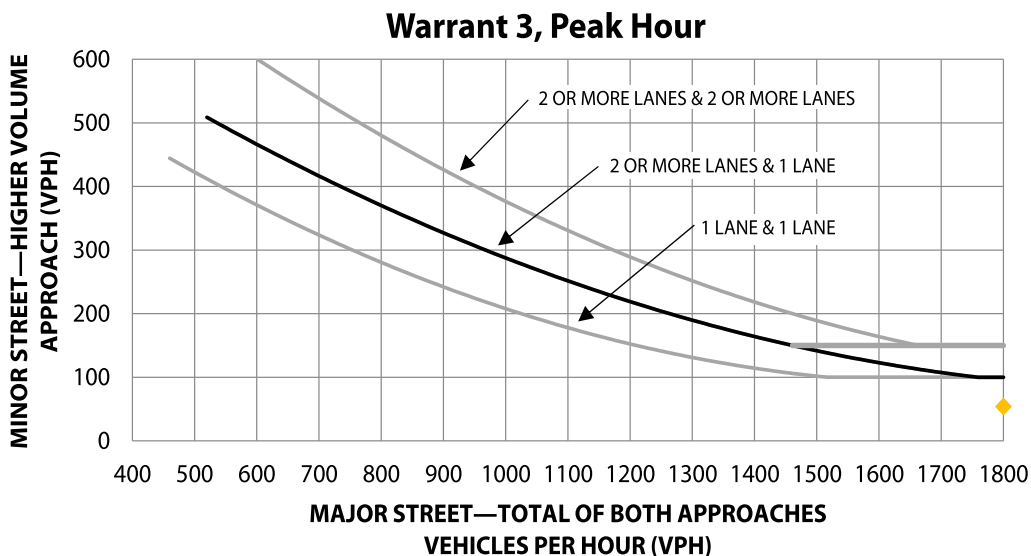
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

N Main St & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 18

	Major Street	Minor Street
Street Name	N Main St	Central Rd
Direction	N-S	E-W
Number of Lanes	2	1
Approach Speed	30	25

Population less than 10,000?

No

Date of Count:

2021 Estimate

Scenario:

Cumulative plus Scenario 3-CRR AM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.36 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 54 vph

Condition A3

Met

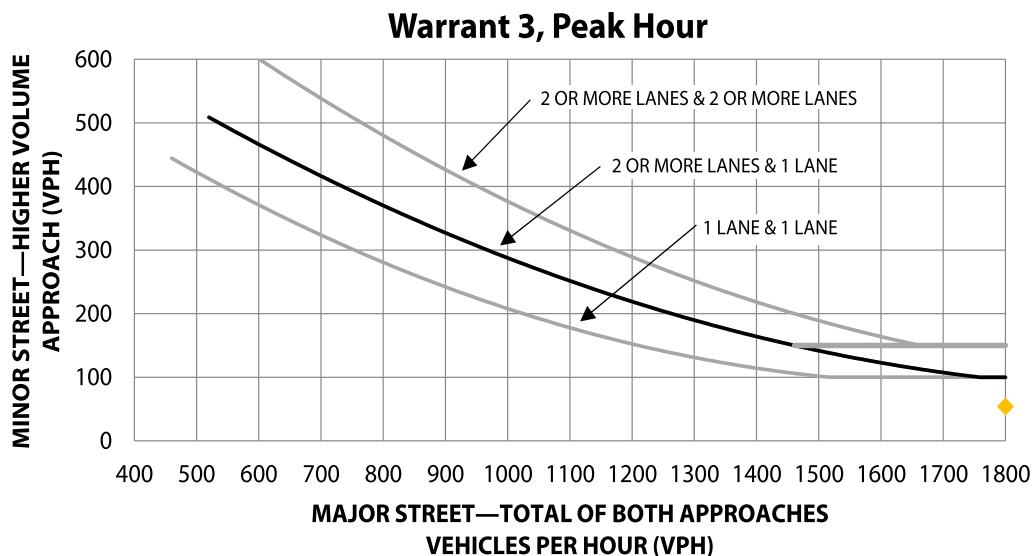
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1982 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.18 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 46 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 744 vph

Condition B

The plotted point falls above the curve

No

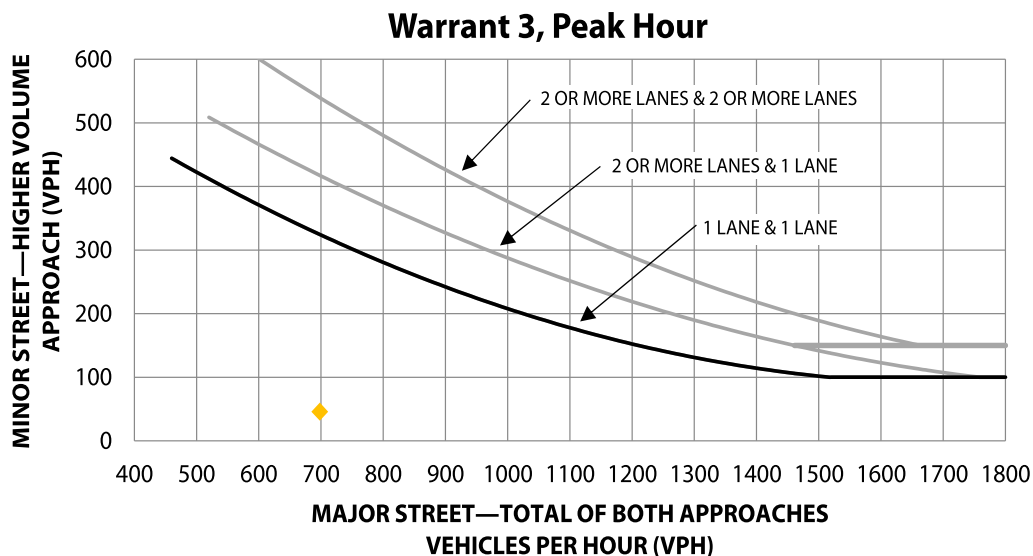
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 1-CCC AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.2 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes

Minor Approach Volume: 46 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 918 vph

Condition B

The plotted point falls above the curve

No

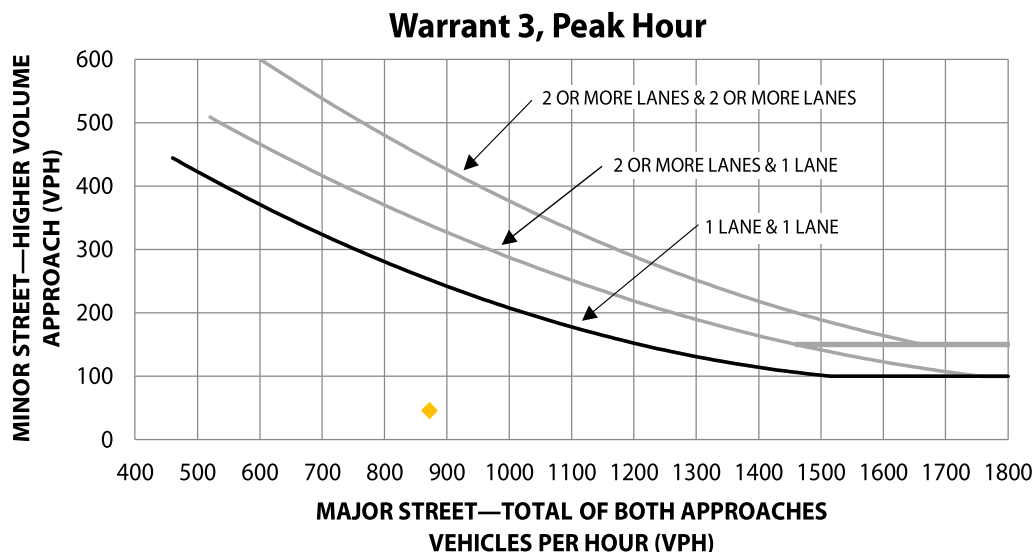
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 2-CRH AM

Warrant 3 Met?: Met when either Condition A or B is met

No
Not Met
Not Met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.2 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes

Minor Approach Volume: 46 vph

Condition A3

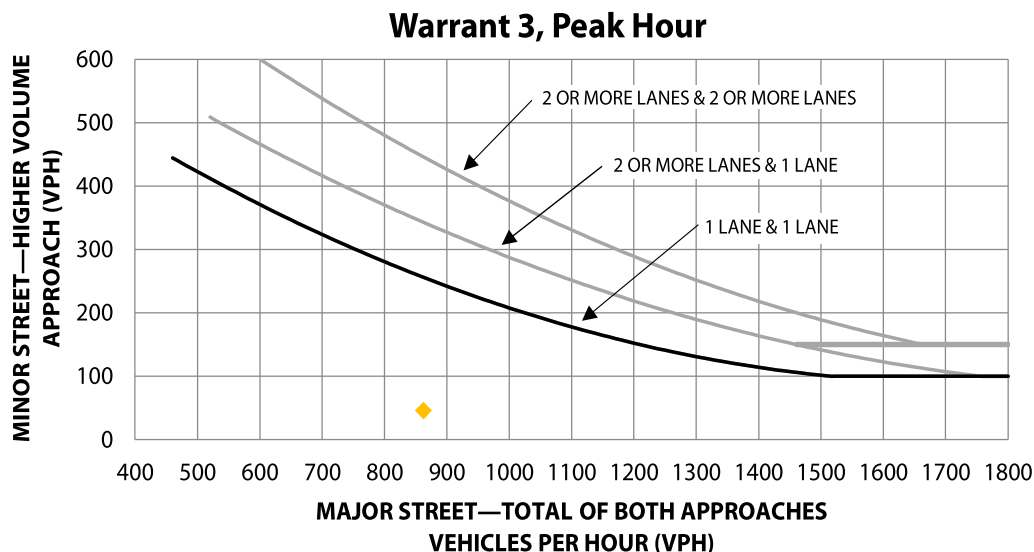
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 908 vph

Condition B

The plotted point falls above the curve

Not Met
Met
Not Met



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 3-CRR AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.2 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes

Minor Approach Volume: 46 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 899 vph

Condition B

The plotted point falls above the curve

No

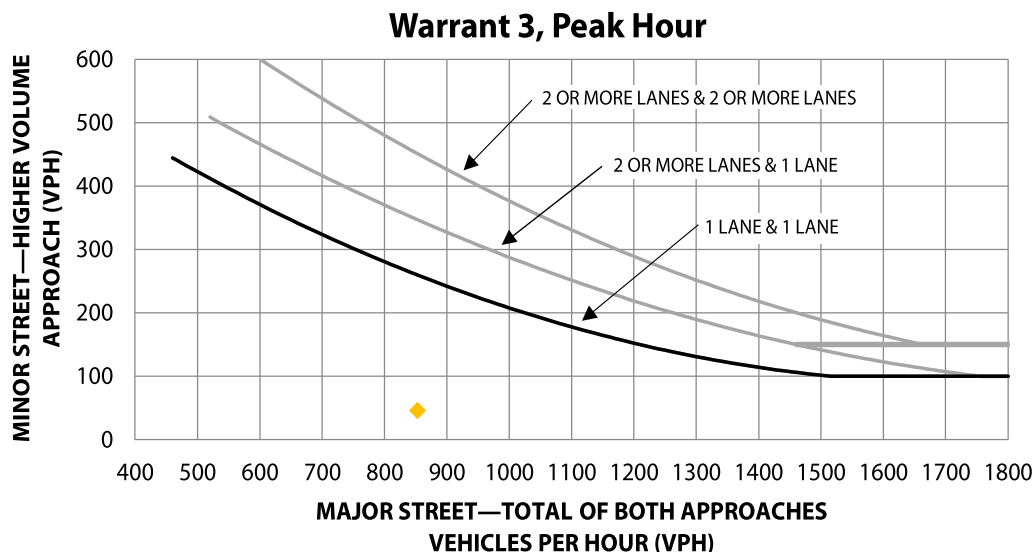
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term (No Project) PM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.24 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 56 vph

Condition A3

Met

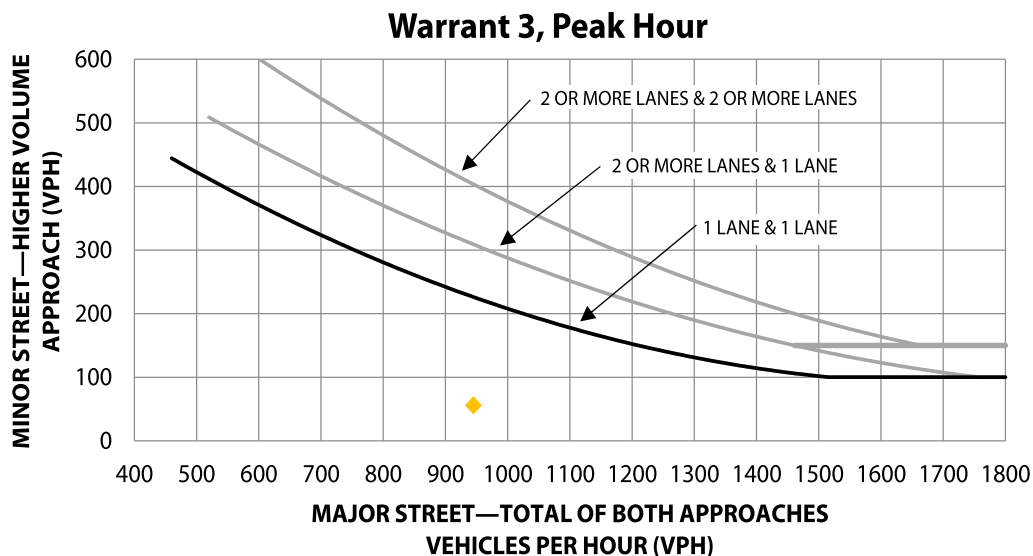
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1003 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 1-CCC PM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.34 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes

Minor Approach Volume: 56 vph

Condition A3

Met

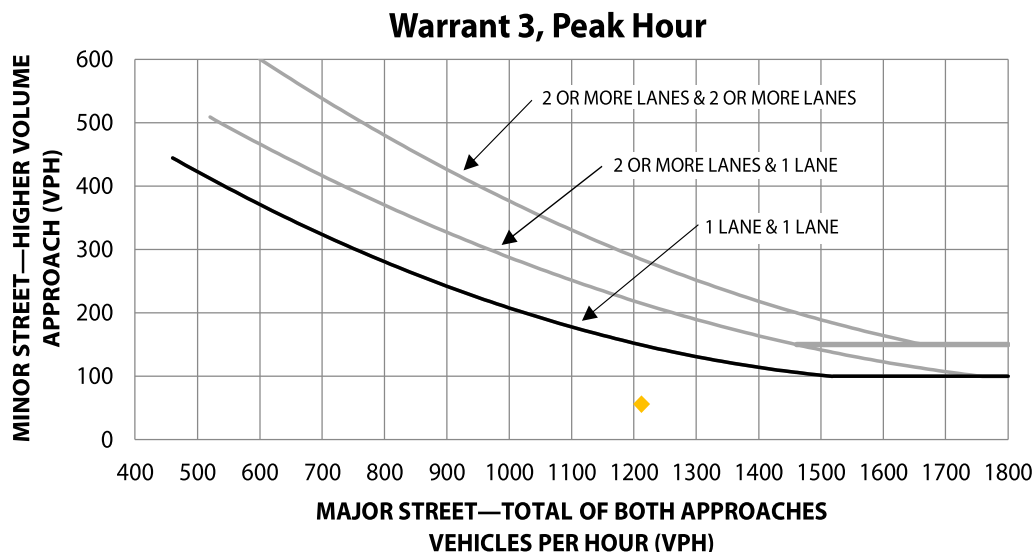
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1268 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 2-CRH PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.3 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 56 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1176 vph

Condition B

The plotted point falls above the curve

No

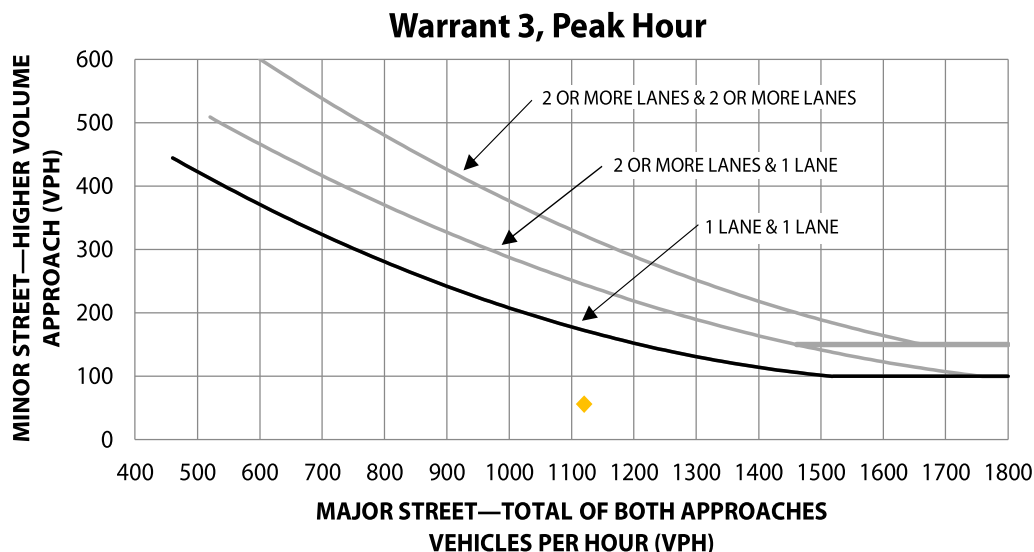
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Near-Term plus Scenario 3-CRR PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.29 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes

Minor Approach Volume: 56 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1169 vph

Condition B

The plotted point falls above the curve

No

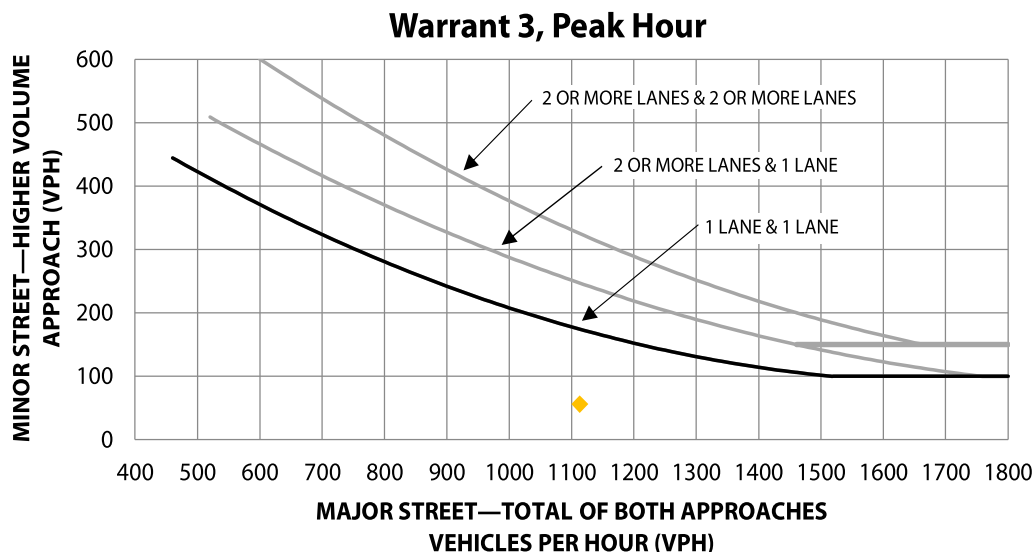
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative (No Project) AM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.24 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 48 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1051 vph

Condition B

The plotted point falls above the curve

No

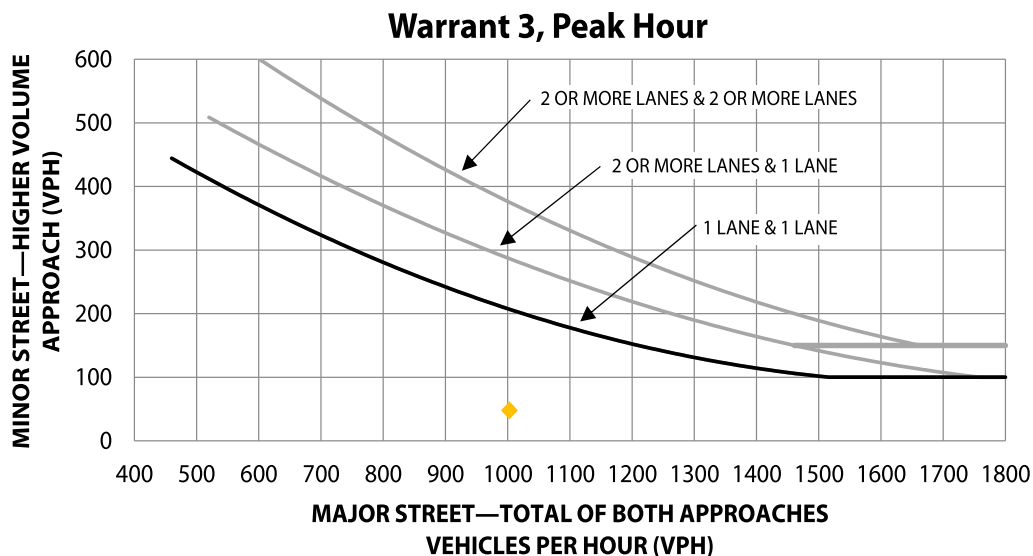
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 1-CCC AM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.3 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes

Minor Approach Volume: 48 vph

Condition A3

Met

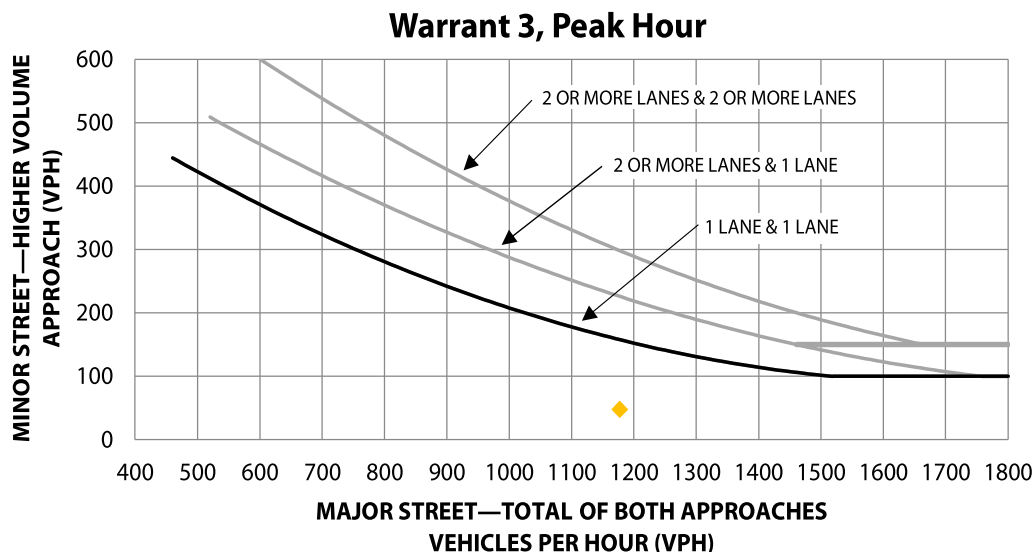
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1225 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 2-CRH AM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.3 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes

Minor Approach Volume: 48 vph

Condition A3

Met

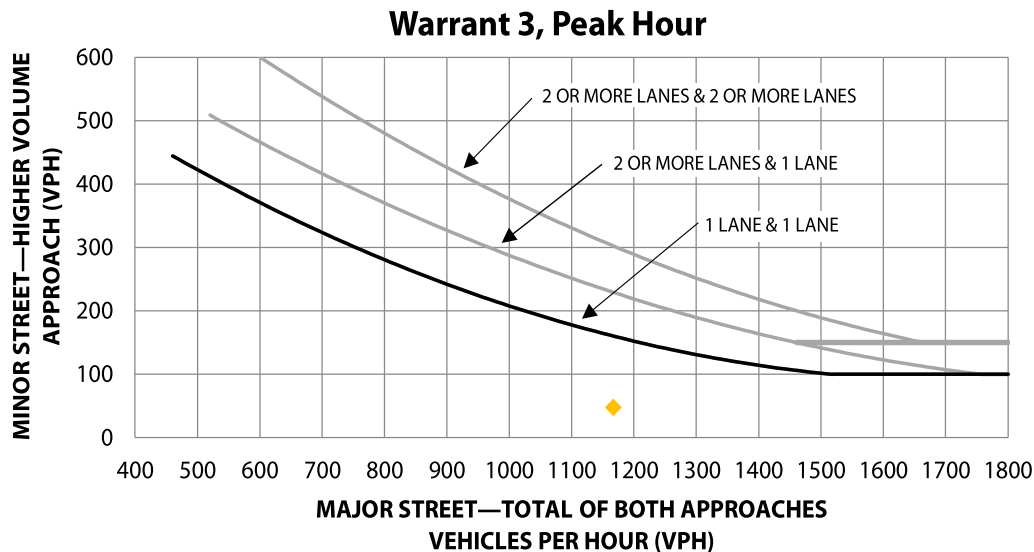
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1215 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 3-CRR AM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.29 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes

Minor Approach Volume: 48 vph

Condition A3

Met

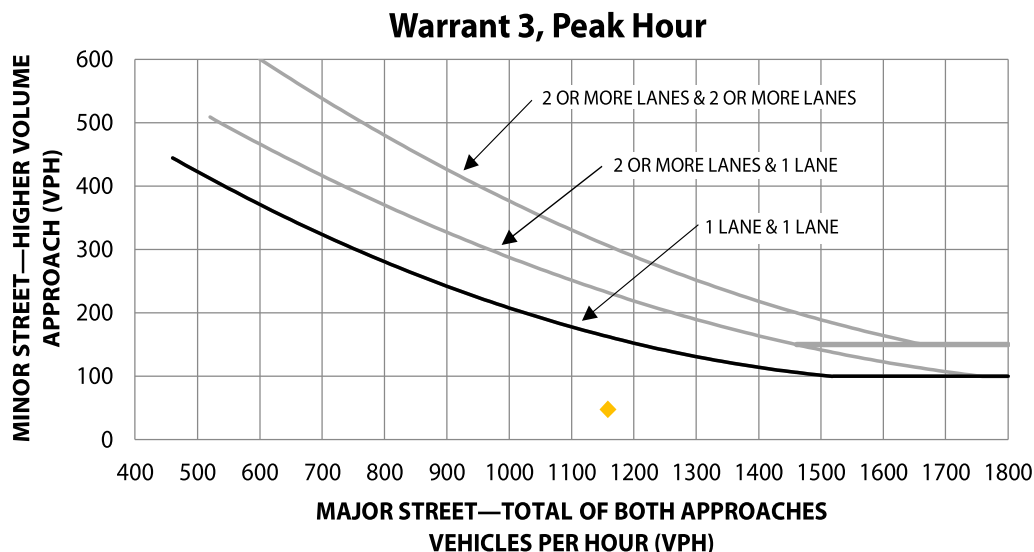
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1206 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative (No Project) PM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.38 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 56 vph

Condition A3

Met

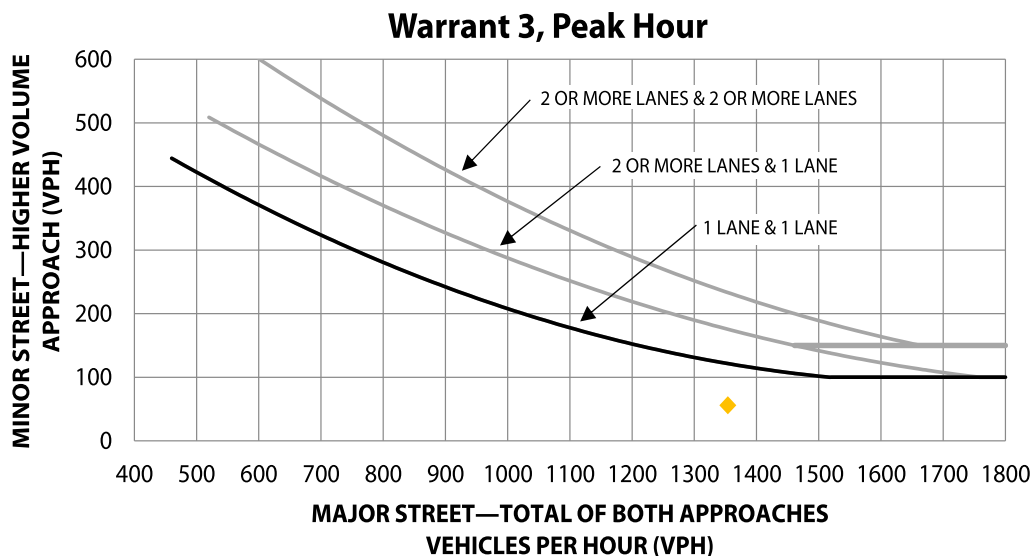
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1412 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 1-CCC PM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.6 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes

Minor Approach Volume: 56 vph

Condition A3

Met

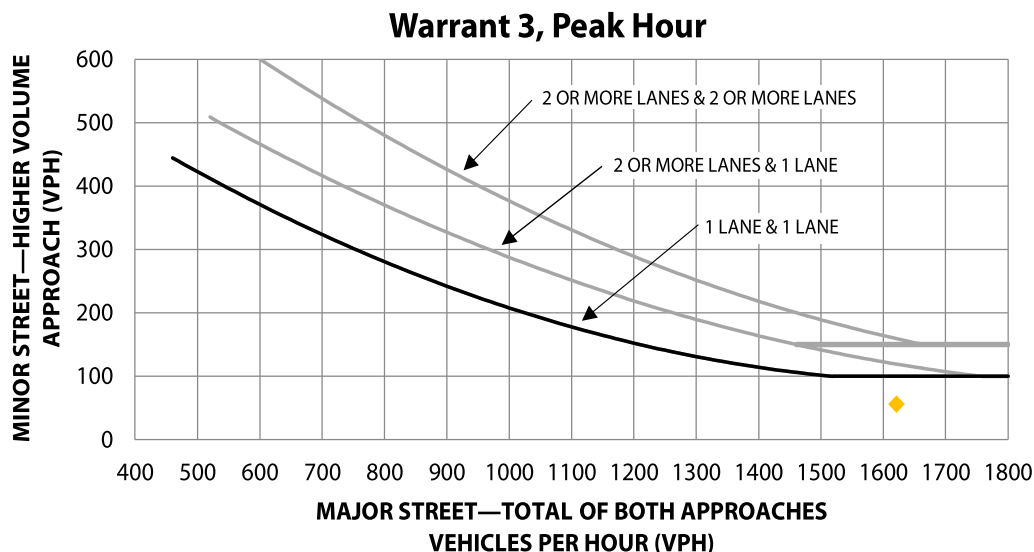
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1677 vph

Condition B

Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 2-CRH PM

Warrant 3 Met?: Met when either Condition A or B is met

Condition A: Met when conditions A1, A2, and A3 are met

Condition A1

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.5 vehicle-hours

Condition A2

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or 150 vph for two moving lanes

Minor Approach Volume: 56 vph

Condition A3

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1585 vph

Condition B

The plotted point falls above the curve

No

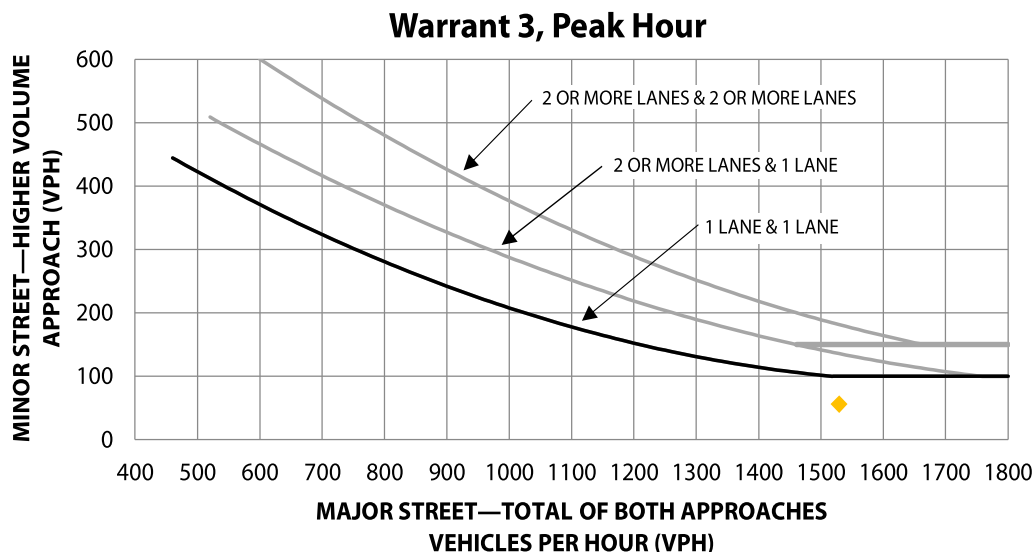
Not Met

Not Met

Not Met

Met

Not Met



Warrant 3: Peak-Hour Volumes and Delay

Broadway & Central Rd
City of Walnut Creek

Project Name: NDSP Supplemental EIR TIS

Intersection: 19

	Major Street	Minor Street
Street Name	Broadway	Central Rd
Direction	N-S	E-W
Number of Lanes	1	1
Approach Speed	25	25

Population less than 10,000? No
Date of Count: 2021 Estimate
Scenario: Cumulative plus Scenario 3-CRR PM

Warrant 3 Met?: Met when either Condition A or B is met

No

Condition A: Met when conditions A1, A2, and A3 are met

Not Met

Condition A1

Not Met

The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one lane approach, or five vehicle-hours for a two-lane approach

Minor Approach Delay: 0.49 vehicle-hours

Condition A2

Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes

Minor Approach Volume: 56 vph

Condition A3

Met

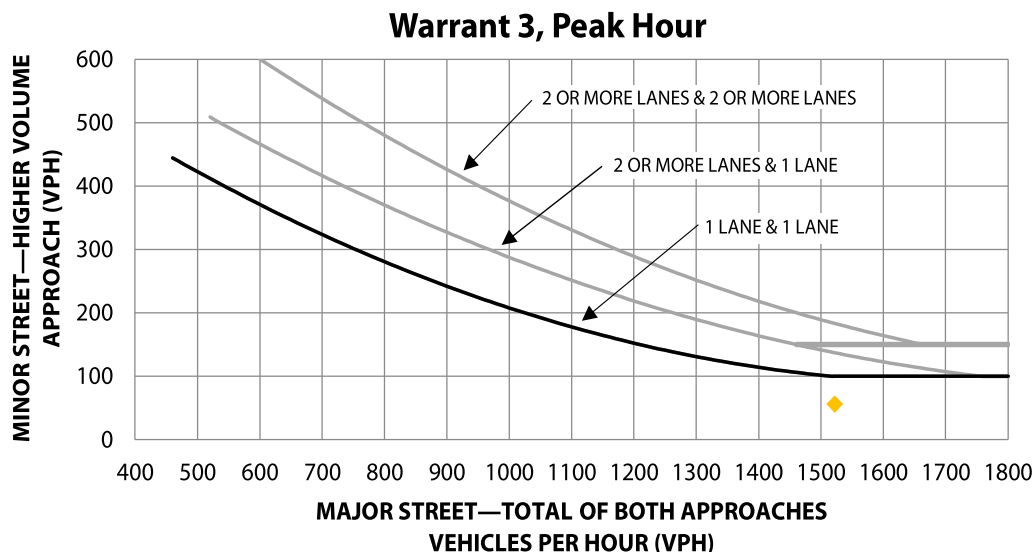
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Total Entering Volume: 1578 vph

Condition B

Not Met

The plotted point falls above the curve





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Appendix E

Proportional Share Calculations



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Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 1-CCC

	AM	PM
Project Trips (T)	11	63

Total Volume Entering the Intersection of		
5. Parkside Drive/Hillside Avenue		
	AM	PM
Existing	1124	1016
Future Year	1404	1176

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

T	11	63
TB	1404	1176
TE	1124	1016
P	3.9%	39.4%

Average
21.7%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 2-HRC

	AM	PM
Project Trips (T)	32	20

Total Volume Entering the Intersection of		
5. Parkside Drive/Hillside Avenue		
	AM	PM
Existing	1124	1016
Future Year	1425	1133

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

T	32	20
TB	1425	1133
TE	1124	1016
P	10.6%	17.1%

Average
13.9%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 3-RRC

	AM	PM
Project Trips (T)	24	16

Total Volume Entering the Intersection of		
5. Parkside Drive/Hillside Avenue		
	AM	PM
Existing	1124	1016
Future Year	1417	1129

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

T	24	16
TB	1417	1129
TE	1124	1016
P	8.2%	14.2%

Average
11.2%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 1-CCC

	AM	PM
Project Trips (T)	17	70

Total Volume Entering the Intersection of		
6. Parkside Dr/Buena Vista Ave		
	AM	PM
Existing	1230	1130
Future Year	1626	1511

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

T	17	70
TB	1626	1511
TE	1230	1130
P	4.3%	18.4%

Average
11.3%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 2-HRC

	AM	PM
Project Trips (T)	36	25

Total Volume Entering the Intersection of		
6. Parkside Dr/Buena Vista Ave		
	AM	PM
Existing	1230	1130
Future Year	1645	1466

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

	36	25
T	36	25
TB	1645	1466
TE	1230	1130
P	8.7%	7.4%

Average
8.1%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 3-RRC

	AM	PM
Project Trips (T)	26	21

Total Volume Entering the Intersection of		
6. Parkside Dr/Buena Vista Ave		
	AM	PM
Existing	1230	1130
Future Year	1635	1462

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

	26	21
T		
TB	1635	1462
TE	1230	1130
P	6.4%	6.3%

Average
6.4%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 1-CCC

	AM	PM
Project Trips (T)	17	70

Total Volume Entering the Intersection of		
7. Parkside Dr/San Juan Ave		
	AM	PM
Existing	1079	839
Future Year	1222	1040

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

	17	70
T		
TB	1222	1040
TE	1079	839
P	11.9%	34.8%

Average
23.4%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 2-HRC

	AM	PM
Project Trips (T)	36	25

Total Volume Entering the Intersection of		
7. Parkside Dr/San Juan Ave		
	AM	PM
Existing	1079	839
Future Year	1241	995

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

T	36	25
TB	1241	995
TE	1079	839
P	22.2%	16.0%

Average
19.1%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 3-RRC

	AM	PM
Project Trips (T)	26	21

Total Volume Entering the Intersection of		
7. Parkside Dr/San Juan Ave		
	AM	PM
Existing	1079	839
Future Year	1231	991

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

	AM	PM
T	26	21
TB	1231	991
TE	1079	839
P	17.1%	13.8%

Average
15.5%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 1-CCC

	AM	PM
Project Trips (T)	17	70

Total Volume Entering the Intersection of		
8. Parkside Dr/Riviera Ave		
	AM	PM
Existing	1389	1323
Future Year	1560	1648

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

	17	70
T		
TB	1560	1648
TE	1389	1323
P	9.9%	21.5%

Average
15.7%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 2-HRC

	AM	PM
Project Trips (T)	36	25

Total Volume Entering the Intersection of		
8. Parkside Dr/Riviera Ave		
	AM	PM
Existing	1389	1323
Future Year	1579	1603

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

	AM	PM
T	36	25
TB	1579	1603
TE	1389	1323
P	18.9%	8.9%

Average
13.9%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 3-RRC

	AM	PM
Project Trips (T)	26	21

Total Volume Entering the Intersection of		
8. Parkside Dr/Riviera Ave		
	AM	PM
Existing	1389	1323
Future Year	1569	1599

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

	26	21
T	26	21
TB	1569	1599
TE	1389	1323
P	14.4%	7.6%

Average
11.0%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 2-HRC

	AM	PM
Project Trips (T)	94	96

Total Volume Entering the Intersection of		
14. North Broadway/Pine St		
	AM	PM
Existing	817	1221
Future Year	1026	1530

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

T	94	96
TB	1026	1530
TE	817	1221
P	45.0%	31.1%

Average
38.0%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 3-RRC

	AM	PM
Project Trips (T)	86	92

Total Volume Entering the Intersection of		
14. North Broadway/Pine St		
	AM	PM
Existing	817	1221
Future Year	1018	1526

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

T	86	92
TB	1018	1526
TE	817	1221
P	42.8%	30.2%

Average
36.5%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 1-CCC

	AM	PM
Project Trips (T)	248	44

Total Volume Entering the Intersection of		
18. North Main St/Central Rd		
	AM	PM
Existing	1501	1947
Future Year	2198	2611

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

T	248	44
TB	2198	2611
TE	1501	1947
P	35.6%	6.6%

Average
21.1%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 2-HRC

	AM	PM
Project Trips (T)	86	93

Total Volume Entering the Intersection of		
18. North Main St/Central Rd		
	AM	PM
Existing	1501	1947
Future Year	2036	2660

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

T	86	93
TB	2036	2660
TE	1501	1947
P	16.1%	13.0%

Average
14.6%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")

Equitable Share Calculations
NDSP Supplemental EIR Traffic Study
Scenario 3-RRC

	AM	PM
Project Trips (T)	32	93

Total Volume Entering the Intersection of		
18. North Main St/Central Rd		
	AM	PM
Existing	1501	1947
Future Year	1982	2660

Description of Project Improvement:

Installation of traffic signal control.

Calculation of Project Share

$$P = T / (TB - TE)$$

where:

P = Equitable Share

T = Project trips during the affected peak hour

TB = Build-out volumes

TE = Existing volumes

	32	93
T		
TB	1982	2660
TE	1501	1947
P	6.7%	13.0%

Average
9.8%

Equitable Share (per Caltrans "Guide for the Preparation of Traffic Impact Studies")