

Sid Commons Apartment Project



Response to Comments/Final Environmental Impact Report

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Lead Agency: City of Petaluma
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Sid Commons Apartment Project Responses to Comments / Final EIR

Table of Contents

<u>Chapter Number</u>	<u>Page</u>
1: Introduction and Executive Summary	
Purpose of the Final EIR	1-1
No New Significant Information	1-2
Summary of Impacts and Mitigation Measures	1-3
Organization of this Final EIR	1-5
Use of this Final EIR	1-6
2: Revised Project Description	
Original Project	2-1
Revised Project	2-3
3: Comparative Environmental Assessment of the Revised Project	
Substantially Different Environmental Conclusions.....	3-1
Biological Resources	3-1
Land Use.....	3-7
Noise	3-10
Transportation and Circulation	3-16
Similar Environmental Conclusions	3-27
4: Master Response to Frequent Comments on the Draft EIR	
Introduction	4-1
Master Response - Shasta Avenue Extension and At-Grade Rail Crossing	4-1
Master Responses Related to Traffic	4-4
Master Responses Regarding Flooding	4-17
Master Response Regarding Stormwater Quality	4-38
Master Response Regarding Loss of Wetlands and Riparian Habitat	4-39
Master Response to Comments Regarding Noise	4-41
5: Response to Comment Letters on the Draft EIR	
Introduction	5-1
List of Comment Letters	5-1
Letter A: California Department of Toxic Substances Control (DTSC)	5-3
Letter B: California Public Utilities Commission (CPUC)	5-5
Letter C: California Department of Transportation (Caltrans)	5-8
Letter D: Sonoma-Marin Area Rail Transit (SMART)	5-15
Letters E: Project Applicant	5-18
Letter F: Kallie Kull (4-22-18)	5-35
Letter G: Taryn Obaid (4-24-18)	5-41
Letter H: Donna Smith (4-24-18)	5-46

Letter I: Petition against Sid Common Project	5-48
Letter J: Taryn Obaid (5-12-18)	5-52
Letter K: Kallie Kull (5-15-18)	5-57
Letter L: Roger Huffman (5-17-18)	5-64
Letter M: Steve Armstrong (5-20-18)	5-67
Letter N: Linda Speel (5-20-18)	5-68
Letter O: Julia Vanderham (5-20-18)	5-69
Letter P: Mary Alice Reis (5-20-18)	5-71
Letter Q: Rachel Kaplan (5-20-18)	5-72
Letter R: William Lee (5-20-18)	5-73
Letter S: David Dimmitt (5-20-18)	5-75
Letter T: Shanna Fleming (5-20-18)	5-76
Letter U: Carol Latvala (5-21-18)	5-77
Letter V: Don Forman (5-21-18)	5-79
Letter W: Janice Gordon (5-21-18)	5-80
Letter X: William Rogers (5-21-18)	5-81
Letter Y: Kim Wilson (5-21-18)	5-84
Letter Z: Nicole Victor (5-21-18)	5-85
Letter AA: Sue Hirsch (5-21-18)	5-86
Letter AB: Catherine Thompson (5-21-18)	5-89
Letter AC: Sherry Kamages (5-21-18)	5-91
Letter AD: Samer Rabadi (5-21-18)	5-92
Letter AE: Cynthia Murray, North Bay Leadership Council (5-21-18)	5-93

6: Response to Comments made at Public Hearings

Introduction	6-1
Comments at April 18, 2018 Planning Commission Hearing	6-1
Comments at May 21, 2018 City Council Hearing	6-12

7: Revisions to the Draft EIR

Introduction	7-1
Revisions and Corrections to the Draft EIR	7-1
Revisions to Mitigation Measures, based on Revised Project	7-18

8: References

Report Preparers	8-
References	8-

List of Tables and Figures

<u>Table Number</u>		<u>Page</u>
1-1	Summary of Revised Project Impacts and Mitigation Measures	1-9
3-1	Status of Protected Trees (original Project / Revised Project)	3-3
3-2	Revised Project Trip Generation Estimates	3-17
3-3	Traffic Volumes versus Design Standards on Graylawn and Jess Avenue (ADT)	3-22
4-1	Traffic Volume Comparison (Vehicles) at Study Intersections	4-9
4-2	Oak Creek Apartments Trip Rates	4-11

4-3	Project and Revised Project Trip Generation Comparison	4-11
4-4	Oak Creek Apartments Trip Distribution	4-13
4-5	Revised Project Peak Period Trip Assignment to Jess and Graylawn Avenue	4-13
4-6	ADT Count Comparison for Graylawn and Jess Avenues	4-15
4-7	Three Day Average Traffic Volume by Time, Graylawn and Jess Avenues	4-15
4-8	Traffic Volumes versus Design Standards at Graylawn and Jess Avenues	4-16
4-9	Graylawn Avenue 85th Percentile Vehicle Speed	4-17
4-10	Change in Floodplain Boundary and Area, by Scenario	4-23
4-11	Relative Change in Water Surface Elevation, by Project and per Cumulative Scenarios	4-25
4-12	Original Project's Contribution to Increased 100-Year Flood Flow	4-30
4-13	Original Sid Commons Project's Effects on 100-Year Water Surface Elevations	4-31
4-14	Effects of Un-Dredged Conditions on 100-Year Flood Water Surface Elevations	4-37

<u>Figure Number</u>		<u>Page</u>
2-1	Revised Project Site (same as original Project Site)	2-4
2-2	Revised Project Site's Relationship to Floodway, Floodplain and River Setbacks.....	2-5
2-3	Revised Project Conceptual Site Plan	2-8
2-4	Revised Project's Proposed Building Types, Example Elevations	2-10
2-5	Revised Project's Relationship to River Corridor and Environmental Constraints	2-13
2-6	Revised Project's Terraced Grading Plan.....	2-15
3-1	Tree Removal, Comparison of Revised Project to original Project.....	3-4
3-2	Revised Project Trip Assignments to Intersections	3-18
3-3	Crossing Improvements at the Payran Street/SMART Rail Crossing	3-25
3-4	Revised Project's Preliminary Stormwater Control Plan	3-45
4-1	May 2019 Traffic Count Locations.....	4-8
4-2	2014 FEMA Floodplain Designations, Payran Neighborhoods	4-19
4-3	Cumulative Detention and Terraced Grading Effects on Base Flood Boundary at Payran Neighborhoods.....	4-22
4-4	Cumulative Detention and Terraced Grading Effects on Base Flood Boundary, Lower Petaluma River	4-24
4-5	Cumulative Effects on Base Flood Boundary with Terraced Grading Only, Lower Petaluma River	4-26
4-6	Hydrology Model "Node" Locations along Petaluma River	4-27
4-7	Sid Commons Terracing Effects on Base Flood Boundary at Payran Neighborhoods.....	4-32
4-8	Sid Commons Terracing Effects on Base Flood Boundary, Lower Petaluma River.....	4-33

Appendices

Appendices are included on a Compact Disk in the back cover of the Final EIR document

Appendix A:	Traffic Calming Plan, Fehr & Peers, June 2019
Appendix B:	Noise and Vibration Data, Illingworth and Rodkin, May 2019

Introduction and Executive Summary

Purpose of the Final EIR

This Environmental Impact Report (EIR) is an informational document prepared by the City of Petaluma as Lead Agency, containing environmental analysis for public review and for City decision-makers to use in their consideration of approvals for discretionary actions needed on the proposed Sid Commons Apartment Project (Project).

On March 1, 2018, the City of Petaluma released a Draft EIR for the Project. The 45-day public review and comment period on that Draft EIR ended on April 16, 2018, although public comments were accepted through the period ending on the City Council meeting of May 21, 2018. During the public review and comment period, the City of Petaluma held the following public hearings:

- a Public Hearing before the City of Petaluma Planning Commission, held on April 18, 2018, and
- a Public Hearing before the City of Petaluma City Council, held on May 21, 2018

The purpose of these hearings was to inform the public about the contents of the Draft EIR and to receive oral comments on the Draft EIR about its adequacy and accuracy.

This Response to Comments document, together with the Draft EIR and the Draft EIR Appendices, constitute the Final EIR for the Project. Due to its length, the full text of the Draft EIR is not included within this Response to Comments document, but is included by reference as part of the Final EIR. The Draft EIR is available for review at the City Planning Division offices at 11 English Street in Petaluma, and on the City's website at:

<http://cityofpetaluma.net/cdd/pdf/SidCommon/DraftEIR2018.pdf>

Following the required 10-day agency review of this Response to Comments document, the City of Petaluma Planning Commission will hold a public hearing to consider making a recommendation to the City Council regarding certification of the Final EIR. The City Council will then hold a separate hearing to consider the Planning Commission's recommendations and to determine whether to certify that the Final EIR adequately discloses the environmental effects of the proposed Project and that the Final EIR has been completed in conformance with the California Environmental Quality Act (CEQA). Before the Planning Commission makes any recommendations regarding the approvals needed for the Project to the City Council, and before the City Council considers approval of the discretionary actions requested as part of the Project, both the Commission and the Council must independently review and consider the information contained in the Final EIR.

Required Contents of the Final EIR

The City of Petaluma has prepared this document pursuant to CEQA Guidelines Section 15132, which specifies that the Final EIR shall consist of the following:

- The Draft EIR or a revision of that Draft EIR
- A list of persons, organizations, and public agencies commenting on the Draft EIR
- Comments and recommendations received on the Draft EIR (either verbatim or in summary)

- The response of the Lead Agency to significant environmental points raised in the environmental review process
- Any other information added by the Lead Agency as part of its environmental review of the Project

This Final EIR incorporates comments from public agencies and the public. It also contains the Lead Agency's response to those comments.

Areas of Public Concern

Public comments primarily concern the environmental and CEQA topics discussed below.

- The original Project's proposed Shasta Avenue Extension and at-grade rail crossing
- General concerns about increased traffic levels, the accuracy and applicability of traffic counts as used in the Draft EIR to establish baseline (or existing) conditions, the accuracy of the trip generation rates assumed for the Project in the Draft EIR, the accuracy of the trip distribution patterns assumed in the EIR, particularly as to vehicle trips on Jess Avenue, and concerns about increased traffic on Graylawn Avenue and Jess Avenue
- Concerns about flooding and the potential for the Project to exacerbate flood conditions, including concerns about stormwater runoff volume (potentially affecting downstream flooding) and water quality, and the implications of increased sedimentation of the Petaluma River and whether current hydrology modeling accounts for this condition
- Loss of wetlands and riparian habitat

No New Significant Information

Revised Project

In response to the significant environmental conclusions raised in the Draft EIR, and in response to public comments on the Draft EIR, and City Planning Commissioner and City Council members' concerns raised during the Draft EIR public comment hearings, the Project applicant has proposed a revised conceptual site plan for the site (the Revised Project). The Revised Project site (site) comprises the same 19.24 gross acres of land as was included in the original Project, located in the City of Petaluma at the northern terminus of Graylawn Avenue, northwest of the existing Oak Creek Apartments.

The Revised Project includes a conceptual site plan for a 205-unit apartment complex, whereas the original Project had proposed 278 units (for a reduction of 73 units). Whereas the original Project was designed as a traditional 3-story apartment complex, the Revised Project now is designed as a "Big House" concept with the apartment units located within separate two-story apartment buildings, and each apartment building consisting of either seven or 10 individual apartment units, with a 25-foot setback from shared property lines. Similar to the original Project, the site plan for the Revised Project also includes a community clubhouse and an outdoor swimming pool. The Revised Project has a more substantial setback from the River such that it does not encroach into the Petaluma River Plan Corridor (see Corridor mapped at Figure 2-5 and 2-6) and substantially reduces impacts on the associated oak woodland habitat, is setback further from the rail lines (at 54 feet), and the Revised Project no longer proposes to construct the Shasta Avenue extension or its at-grade rail crossing. Many other aspects of the Revised Project, such as utility infrastructure and terraced grading along the riverbank for flood control purposes, remain similar to the original Project.

Recirculation Not Required

If significant new information is added to a Draft EIR after notice of public review has been given, but before certification of the Final EIR, the lead agency must issue a new notice and recirculate a Draft EIR for further

comments and consultation. Although this Response to Comment document contains new information specific to the Revised Project as now proposed, and includes certain corrections and clarifications to information presented in the Draft EIR, none of this new information, corrections or clarifications constitutes significant new information as defined under Section 15088.5 of the CEQA Guidelines. More specifically:

- No new significant environmental impacts have been identified as resulting from the Revised Project.
- No substantial increase in the severity of a previously identified environmental impact has been identified as resulting from the Revised Project and no additional mitigation measures are necessary to reduce such impacts to a level of insignificance.
- There is no feasible alternative or mitigation measure considerably different from others previously analyzed in the Draft EIR that would clearly lessen significant environmental impacts of the Project, and that the Project applicant declines to adopt.
- The Draft EIR was not fundamentally inadequate or conclusory in nature such that meaningful public review and comment were precluded.

Information presented in the Draft EIR and in this Response to Comments document supports the City's determination that recirculation of a Draft EIR is not required.

Summary of Impacts and Mitigation Measures

Significant and Unavoidable Impacts

Based on the analysis presented in the Draft EIR, the original Project would have resulted in significant and unavoidable environmental impacts related to: 1) increased safety hazards associated with an at-grade rail crossing; 2) exposure of existing and new residents to a reasonably foreseeable and substantial increase in noise from train warning horns at the original Project's proposed Shasta crossing; 3) exposure of new residents to noise from train warning horns at the existing Payran crossing; 4) temporary and periodic noise impacts during construction that were expected to last for a period of more than 1 year and that would exceed 90 dBA Leq; 5) a substantial increase in roadway hazards and hazards for emergency vehicles accessing the site, due to the proposed at-grade rail crossing; and 6) an inconsistency with adopted bicycle and pedestrian system plans, guidelines, policies and standards of the City of Petaluma associated with the proposed at-grade rail crossing.

As indicated in this Final EIR/Response to Comments document, each of these significant and unavoidable impacts associated with the original Project no longer remain applicable to the Revised Project, as summarized below.

- The original Project's increase in safety hazards associated with a new at-grade rail crossing, including hazards to traffic, bicycle and pedestrian crossings at a potentially unsafe location (Draft EIR Impact Haz-6) is avoided by the Revised Project's site plan, which does not include the Shasta Avenue extension and at-grade rail crossing.
- The original Project's exposure of existing and new residents to reasonably foreseeable future train warning horn noise at the Shasta Avenue Extension's at-grade rail crossing (Draft EIR Impact Noise-3) is avoided by the Revised Project's site plan, which does not include the Shasta Avenue extension or at-grade rail crossing.
- Although it had been the City of Petaluma's standard practice (consistent with prior CEQA Guidelines, Appendix G) to consider a project's impact as significant if a project would expose its residents to noise levels in excess of standards established in the City General Plan or Noise Ordinance, recent case law and corresponding revisions to CEQA Guidelines Appendix G (October 2018) have clarified that the effects of the environment (e.g., existing ambient noise levels) on a

project are not to be considered a significant impact under CEQA. Therefore, the exposure of new Project residents to excessive ambient noise associated with train warning horns at the existing Payran rail crossing (Draft EIR Impact Noise-3) is no longer considered a significant environmental impact in this EIR. Nonetheless, this FEIR identifies recommendations to avoid inconsistencies with the City's General Plan policies for land use compatibility by introducing new residents to an area with occasionally elevated noise levels from railroad noise associated with commuter rail and freight rail.

- The City of Petaluma has not officially adopted a numeric threshold for evaluation of temporary increases in noise resulting from a project's construction activities. The construction noise thresholds used in the Draft EIR were derived from the Federal Transit Administration's criteria for construction noise impacts and indicated a significant construction noise impact would occur if construction noise exceeded 90 Leq (dBA) during a one-hour period, and/or if construction noise exceeded 80 Leq (dBA) over an 8-hour period during daytime hours. However, these thresholds are substantially different from those thresholds used in other recent City of Petaluma CEQA documents.¹ For consistency with these other CEQA documents (which have been certified by the City), the construction-period noise impact threshold for this EIR is revised, and now defined as exceeding the ambient noise environment by 5 dBA Leq for a period greater than one year. With required conformance with the City of Petaluma Noise Ordinance and implementation of recommended mitigation measures, all reasonable and feasible noise attenuation strategies will be implemented. The highest noise levels that would be experienced by adjacent sensitive receptors would only occur for a limited duration during construction activity. Not all construction activity associated with the Revised Project would occur in immediate proximity to adjacent neighbors, and construction that does occur adjacent to existing neighbors is unlikely to individually last for more than 1 year. With implementation of all mitigation measures as identified, the exposure of sensitive receptors to excessive noise during construction (Draft EIR Impact Noise-4) will be reduced to a less than significant level.
- The original Project's substantial increase in roadway hazards and hazards for emergency vehicles accessing the site due to the proposed at-grade rail crossing (Draft EIR Impact Transp-7) is avoided by the Revised Project's site plan, which does not include the Shasta Avenue extension and at-grade rail crossing.
- The original Project's inconsistency with adopted bicycle and pedestrian system plans, guidelines, policies and standards for safety relating to the proposed at-grade rail crossing (Draft EIR Impact Transp-9) is also avoided by the Revised Project's site plan, which does not include the Shasta Avenue extension and at-grade rail crossing.

None of the significant and unavoidable impacts of the original Project remain, and the Revised Project does not result in new significant and unavoidable impacts.

Impacts Mitigated to Less than Significant Levels, and Less than Significant Effects

Table 1-1 at the end of this chapter provides a summary of potential environmental impacts, recommended mitigation measures (as necessary), and the resulting level of significance after implementation of all mitigation measures. For a more complete discussion of potential environmental impacts and mitigation measures, please refer to specific discussions in individual chapters of the Draft EIR.

The Revised Project includes a number of modifications to the original Project that the applicant now proposes in response to certain environmental issues raised in the Draft EIR. Some of these modifications serve to avoid environmental impacts that would otherwise have occurred under the original Project such

¹ These prior City of Petaluma CEQA documents include the 2017 Davidon/Scott Ranch Revised Draft EIR, the Rainier Cross Town Connector EIR, the Petaluma Riverfront Development Project EIR, and the Haystack Mixed-Use Project CEQA document.

that mitigation measures recommended in the Draft EIR are no longer required of the Revised Project. Other modifications incorporated into the Revised Project serve to implement mitigation measures that were recommended in the Draft EIR, and which are now not necessary as these measures are fully incorporated. To identify these changes, the following summary Table of Impacts and Mitigation Measures is marked with identifying text as follows:

- Text indicated in ~~grey strike-out~~ indicates this information (or mitigation measure) is no longer applicable to, or required of the Revised Project
- Text indicated in underline indicates new or clarifying information about the Revised Project or applicable mitigation measures, and/or why a mitigation measure is no longer applicable or required under the Revised Project

Organization of this Final EIR

This Response to Comments document contains information about the Revised Project, supplemental environmental information and responses to comments that were raised during the public review and comment period on the Draft EIR. Following this Introduction chapter, the document is organized as follows:

Chapter 2 - Revised Project Description

This chapter provides a brief summary of the original Project and a summary of the significant and unavoidable environmental effects that the original Project would have caused. It also provides a description of those modifications to the original Project that the applicant now proposes in response to the environmental issues raised in the Draft EIR, as well as in response to public comments on the Draft EIR, and City Planning Commission and City Council concerns.

Chapter 3 - Comparative Environmental Assessment of the Revised Project

This chapter provides an assessment of the Revised Project's environmental impacts against the same thresholds used in the Draft EIR to analyze the impacts of the original Project. This chapter also includes an issue-by issue comparison of potential impacts of the original Project that are now avoided or reduced in extent based on the changes and modifications incorporated into the Revised Project.

Chapter 4 - Master Responses to Frequent Comments on the Draft EIR

This chapter provides comprehensive responses to numerous, similar comments made by several commenters on specific environmental issues relative to the Draft EIR.

Chapter 5 - Individual Responses to Written Comments on the Draft EIR

This chapter contains each letter or correspondence received by the City commenting on the Draft EIR, and provides individual responses to those CEQA-related comments raised. This chapter includes a list of all agencies, organizations and individuals that submitted written comments on the Draft EIR during the public review and comment period.

Chapter 6 - Responses to Comments Made at Public Hearings on the Draft EIR

This chapter contains a summary of oral comments made at each of the public hearings on the Draft EIR, and presents responses to each of the specific CEQA-related comments raised.

Chapter 7 - Revisions to the Draft EIR

This chapter contains text changes and corrections to the Draft EIR as initiated by the Lead Agency in response to changes made pursuant to the Revised Project, or resulting from comments received on the Draft EIR.

Intended Use of this Final EIR

Pursuant to CEQA, the Final EIR is a public information document for use by governmental agencies and the public. The information contained in the Final EIR is subject to review and consideration by the City of Petaluma, prior to its decision to approve, reject or modify the Project. The City of Petaluma City Council must independently certify that they have reviewed and considered the information in the Final EIR and that the Final EIR has been completed in conformity with the requirements of CEQA before making any decision regarding the Project. The Final EIR identifies significant effects that would result from the implementation of the Project.

City of Petaluma Project Approvals

Discretionary Actions

The City of Petaluma City Council will make findings regarding certification of the Final EIR, and the Council or its designated body will make final decisions about the Project's proposed entitlements and discretionary approvals, including:

- A Planned Unit Development (PUD) Amendment to remove the northern portion of the project site (APN 019-010-009) from the 1982 PUD approval for the Oak Creek Apartment project (City of Petaluma Resolution No. 9628, December 1982)
- A Zoning Map Amendment to rezone APN 019-010-009 from that 1982 PUD to R4 (Residential 4), enabling residential development at densities up to 18 units per net developable acre (consistent with the Medium Density Residential General Plan Land Use Designation)
- Subsequent Site Plan and Architectural Review for the development site with up to 205 multi-family residential units and all associated site improvements

Subsequent Approvals

If the City of Petaluma does approve the Project and each of its discretionary approvals, subsequent approvals will be necessary to carry out the Project, including:

- Approval of the administrative mapping process (lot line adjustment or tentative parcel map) reflecting the refined site plan (timing anticipated to be proximal to SPAR approval)
- Approval and recordation of Final Parcel Map (or recordation of Lot Line Adjustment), to include a public access easement for public access to and along a new multi-use trail along the Petaluma River and for pedestrian access on the Bernice EVA
- Public Improvement Plans for new streets, driveways, sidewalks, pathways, EVA(s) and all related public improvements that will occur as part of the Project including both residential development and terracing activities.
- Encroachment permits for construction improvements to the public right-of-way necessary to allow work including on Graylawn Avenue and Bernice Court
- Grading permits as required for the development site and for the terraced grading plan along the banks of the Petaluma River, including approval of a Stormwater Pollution Prevention Plan (SWPPP)

demonstrating conformance with all applicable RWQCB design standards and BMPs and approval of an Erosion Control Plan, prior to issuance of a grading permit

- Final Stormwater Control Plan (SWCP) with detailed calculations to demonstrate that the requirements of post-construction runoff treatment have been met in accordance with requirements of the City's Storm Water Management regulations (Municipal Code Chapter 15.80 – Stormwater Management and Pollution Control), and demonstration of compliance with the NPDES General Permit for the Discharge of Storm Water from Small MS4s General Permit (SWRCB 2013)
- Building permits for all proposed improvements (apartment buildings, the clubhouse and pool, parking and roadways, etc.)
- Tree removal permits pursuant to Petaluma's Implementing Zoning Ordinance Section 17.060 (such as a grading permit), for removal of certain existing trees necessary to accommodate development of the Project, as well as protective measures for those trees to remain, as necessary to ensure their preservation

Other Regulatory Agency Approvals

The Project also requires certain permits and/or approvals from other outside regulatory agencies. These other agencies (or responsible agencies), which will rely on this EIR for their decision-making process include, but are not limited to the following:

U.S. Army Corps of Engineers

All proposed discharge of dredged or fill material to the Petaluma River will require Department of the Army Corps of Engineers (USACE) authorization and the issuance of a permit under Section 10 of the Rivers and Harbors Act, which is anticipated to be a nationwide permit for impacts on other waters. The applicant shall comply with all the terms and conditions within the nationwide permit.

All proposed discharge of dredged or fill material occurring within the lateral extent of jurisdictional wetlands on the Project site will require Department of the Army authorization and the issuance of a permit under Section 404 of the Clean Water Act.

National Marine Fisheries Service

The USACE would determine appropriateness of consultation with the National Marine Fisheries Service (NMFS) for impacts on the federally listed Central California Coastal Steelhead DPS and Green Sturgeon DPS. If consultation with the NMFS for the Central California Coast California Steelhead DPS and Green Sturgeon DPS is needed, the applicant shall comply with all the terms and conditions required by the NMFS.

California Department of Fish and Wildlife

Alterations to the Petaluma River streambed may require a Streambed Alteration Agreement issued by the California Department of Fish and Wildlife pursuant to Section 1602 of the Fish and Game Code. Any substantial change or use of any material from the bed, channel or bank of the River, or any change that may substantially adversely affect existing fish or wildlife resources will require CDFW issuance of a Streambed Alteration Agreement. Any loss or disturbance of on-site riparian vegetation resulting from development of the property will require authorizations from the CDFW (as applicable) pursuant to Fish and Game Code 1602.

San Francisco Regional Water Quality Control Board

All proposed discharge of fill material to wetlands will require State Water Quality Certification pursuant to the federal Clean Water Act (CWA), including issuance of a permit under Section 401 as issued by the San

Francisco Bay RWQCB. Such certifications may be issued in connection with U.S. Army Corps of Engineer (Corps) CWA section 404 permits, or may be issued for the discharge of fill material to wetlands outside the jurisdiction of the Corps. State Water Quality Certification pursuant to the Porter-Cologne Act as issued by the San Francisco Bay RWQCB shall be required for any direct removal, filling or hydrological interruption to the River or other effects on water quality.

In addition, the applicant shall comply with NPDES General Construction Permit regulations, implement a SWPPP and implement spill prevention and controls measures, as appropriate. Any direct removal, filling or hydrological interruption to the River, or other effects on water quality will require State Water Quality Certification pursuant to the Porter-Cologne Act as issued by the San Francisco Bay RWQCB. The project applicant shall submit a Notice of Intent (NOI), Stormwater Pollution Prevention Plan (SWPPP), and other required permit registration documents to SWRCB.

Sonoma County Water Agency

Improvements related to flood control and terracing along the Petaluma River will also be subject to review and approval of the Sonoma County Water Agency (SCWA) and their Flood Control Design Criteria for the design and construction of drainage structures and facilities.

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<u>Aesthetics</u>		
Visual-1: The Revised Project would not have a substantial adverse effect on a scenic vista, views of significant landscape features, or landforms as seen from public viewing areas.	None needed.	Less than Significant
Visual-2: The Revised Project would not substantially damage scenic resources, including trees, rock outcroppings and historic buildings within a state scenic highway.	<p>Mitigation Measure Visual-2, Implement Mitigation Bio-10A (as amended): Limitations on Improvements within the Petaluma River Plan Corridor (see Biology section for details)</p> <p>Mitigation Measure Visual 2: Implement Mitigation Bio-10A: Preclude Residential Development from intruding into the Petaluma River Plan Corridor. No portion of the residential component of the Project shall extend into the Petaluma River Plan Corridor (comprised of the Preservation, Restoration, and Buffer management zones of the River Plan; see Corridor mapped at Figure 6-6—see also discussion and Mitigation Measure Bio-11A). Only River Plan Corridor components shall be allowed with the Corridor including the river trail, terracing and restoration.</p>	Less than Significant
Visual-3: The Revised Project could potentially degrade the existing visual character or quality of the site and its surroundings due to the removal of mature trees and conflict with the River Plan.	<p>Mitigation Visual-3A, Inclusion in SPAR:</p> <p>The Site Plan and Architectural Review process for the Revised Project shall include evaluation and review of the Revised Project for:</p> <ol style="list-style-type: none"> a) Creation of a lush landscape plan planned to accommodate significant trees in a manner consistent with the Oak Creek Apartment complex (see also Mitigation Bio-9: Incorporation of Native Plants in Landscaping Plans). b) Adequate setbacks and/or landscaping between existing abutting residential structures in the R2 zoning district (addressed from Graylawn Avenue and Bernice Court). c) Extent of desirability of utilizing a single-loaded street near the River corridor, as the means of ensuring the creation of linear open space corridors with maximum public accessibility, visibility, and opportunities for stewardship pursuant to GP 2-P-8. <p>Visual-3B, Implement Mitigation Bio-10B (as amended): RODZ review at SPAR (see Biology section for details)</p> <p>Mitigation Visual-3C, Implement Mitigation Bio-11A (as amended): Ensure Preservation of Existing Trees (see Biology section for details)</p>	Less than Significant
Visual-4: Development of the Revised Project would create a new source of substantial light or glare, which	Mitigation Visual-4, Glare Minimization Design Standards: The following measures shall be applied to reduce light and glare at the Project site:	Less than Significant

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
could adversely affect day or nighttime views in the area.	<ul style="list-style-type: none"> a) Lighting designs shall employ fixtures that would cast light in a downward direction, and building materials should not be sources of substantial glare. b) Lighting should generally occur at intersections, areas of pedestrian activity, and building entrances, and be minimized elsewhere. c) Ornamental, pedestrian-scale fixtures shall be utilized to the degree possible. Lighting shall be designed to minimize glare and the direct view of light sources. d) No lighting shall blink, flash or be of unusually high intensity or brightness. e) Lighting shall utilize energy-efficient fixtures that provide a balance between energy efficiency and pleasing light color. f) High pressure sodium fixtures shall be utilized for street lighting. Metal halide, incandescent, or color-balanced fluorescent fixtures may be used for other lighting systems. Low-pressure sodium fixtures are prohibited. g) All streetlights shall utilize cut-off fixtures to minimize visibility from adjacent areas. h) Parking area lighting fixtures shall be no higher than necessary to provide efficient lighting of the parking areas. i) Landscape lighting fixtures shall be hidden from direct view unless designed as an integral part of the area. j) Landscape lighting sources shall be shielded from view at night, with the emphasis being on the object or view being lit. <p>See also Mitigation Measure Bio-7A.</p>	
<u>Air Quality</u>		
AQ-1: The Revised Project would not conflict with or obstruct implementation of the applicable air quality plan.	None needed.	No Impact
AQ-2: The Revised Project could result in air quality impacts related to construction-period fugitive dust (PM10), but these impacts would be reduced with implementation of required mitigation measures as recommended by the BAAQMD.	<p>Mitigation Measure AQ-2A, Basic Dust Control: The Project shall comply with the following “Basic” mitigation measures as recommended by BAAQMD for reducing construction related emissions:</p> <ul style="list-style-type: none"> a) All exposed surfaces (e.g. parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered two times per day. b) All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 	Less than Significant

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<ul style="list-style-type: none"> c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d) All vehicle speeds on unpaved roads shall be limited to 15 mph. e) All roadways, driveways and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. f) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. g) All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified visible emissions evaluator. h) Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations. 	
	<p>Mitigation Measure AQ-2B, Enhanced Dust Control: Because of the size of the site and the proximity of nearby sensitive receptors, the Project shall also comply with the following “Enhanced” mitigation measures as recommended by BAAQMD for reducing construction related emissions:</p> <ul style="list-style-type: none"> a) All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. b) All excavation, grading and demolition activities shall be suspended when average wind speeds exceed 20 mph. c) Windbreaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Windbreaks should have at maximum 50 percent air porosity. d) Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. 	

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<ul style="list-style-type: none"> e) The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. f) All trucks and equipment, including their tires, shall be washed off prior to leaving the site. g) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch or gravel. h) Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. i) Minimizing the idling time of diesel powered construction equipment to two minutes. j) The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOX reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. k) Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). l) Require that all construction equipment, diesel trucks and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM. m) Requiring all contractors use equipment that meets CARB’s most recent certification standard for off-road heavy-duty diesel engines. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. 	
<p>AQ-3: Construction of the Revised Project would generate emissions of criteria air pollutants (ROG, NOx, PM10 and PM2.5) and evaporative emissions (ROG), but these emission levels for the Project would not exceed applicable air quality thresholds.</p>	<p>None needed.</p> <p>Recommendation AQ-3, Construction-Period Criteria Pollutant Emissions: Consistent with BAAQMD recommendations for all projects regardless of the significance level of construction-period criteria pollutant emissions, mitigated construction emissions assume a 20 percent reduction for NOx and a 45 percent reduction for PM10 and PM2.5 to account for limited idling times of construction equipment as included in the “Basic” dust control measures of Mitigation Measure AQ-2A above.</p> <p>These measures further serve to reduce construction-period criteria pollutant impacts.</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>AQ-4: Use of heavy-duty off-road and on-road construction equipment would produce emissions of toxic air contaminants, including diesel PM2.5. Emissions from these construction activities would exceed the off-site community risk and hazards threshold of significance.</p>	<p>Mitigation AQ-4, Construction-Period DPM Emission Reductions: All off-road construction equipment greater than 25 horsepower shall have engines that meet or exceed either U.S. Environmental Protection Agency (USEPA) or California Air Resources Board (ARB) Tier 4 Final off-road emission standards. The Contractor may use the next cleanest piece of off-road equipment (i.e., Tier 3 Engine with Level 3 Verified Diesel Emission Control Strategy [VDECS], Tier 3 Engine with Level 2 VDECS, or Tier 3 Engine with alternative fuel), if:</p> <ul style="list-style-type: none"> a) a particular piece of off-road equipment that meets these standards is technically not feasible; b) the equipment would not produce desired emissions reduction due to expected operating modes; c) installation of the equipment would create a safety hazard or impaired visibility for the operator; or, d) there is a compelling emergency need to use off-road equipment that does not meet these standards; and e) The Contactor develops a Construction Emissions Minimization Plan (CEMP) to describe the process used to identify the next cleanest piece of off-road equipment and the steps that will be taken to reduce emissions of criteria air pollutants to the greatest extent practicable. 	<p>Less than Significant</p>
<p>AQ-5: Operation of the Revised Project will result in new emissions, primarily associated with vehicle trip generation. These new operational emissions will not violate air quality standards, contribute substantially to an existing or projected air quality violation or otherwise exceed established thresholds. The Project is also compliant with all CARB-recommended siting criteria for new sensitive receptors.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p>AQ-6: The Revised Project would not create objectionable odors affecting a substantial number of people.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p><u>Biological Resources</u></p>		
<p>Bio-1: Implementation of the Revised Project would not result in a substantial adverse effect on candidate,</p>	<p>None needed.</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
sensitive or special-status plant species, either directly or through habitat modification.		
Bio-2: Implementation of the Revised Project could result in a substantial adverse effect on candidate, sensitive or special-status bird and bat species, both directly and through habitat modification. (Less than Significant with Mitigation)	<p>Mitigation Measure Bio-2a: Pre-Construction Nesting Surveys. If grading operations or construction is scheduled during the nesting season of migratory birds (February 1 through August 30), trees in the Project site shall be surveyed including call surveys as appropriate for nesting migratory birds.</p> <ul style="list-style-type: none"> a) Surveys shall be conducted within the following buffers of the construction site: 1) 150 feet for nesting raptors, and 2) 500 feet for nesting passerines. b) The surveys shall be conducted no more than 15 days prior to the start of any ground disturbing activities. c) If an active nest is found prior to construction or during construction activities, a qualified biologist, in consultation with CDFW, shall determine the appropriate buffer size and delineate the buffer using ESA-approved fencing, pin flags, and/or yellow-caution tape. A buffer zone shall be maintained around all active nest sites until the young have fledged and are foraging independently. d) In the event that an active nest is found after the completion of preconstruction surveys and after construction begins, all construction activities shall be stopped until a qualified biologist has evaluated the nest and erected the appropriate buffer around it. <p>Mitigation Measure Bio-2b, Pre-Construction Tree Roost Surveys: For all tree removal and vegetation management activities the following measures shall be implemented to protect bats:</p> <ul style="list-style-type: none"> a) Tree removal shall be conducted between September 1st and March 31st in order to avoid the bat maternity periods and ensure protection of bat species. Should maintenance activities necessitate tree removal during the maternity roosting season (April 1st – August 31st) then a qualified biologist shall first perform a bat roost survey of trees within 7 days to determine if roosts are present. If no evidence is found, activities may proceed. In the event that an active roost is observed within the work area than a work exclusion zone of 50 to 250 feet shall be established. Work within the exclusion zone shall not be permitted until the maternity roosting season has completed. The appropriate size of the exclusion zone shall be determined by a qualified biologist based upon the species and its susceptibility to disturbance. 	Less than Significant

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>Bio-3: Implementation of the Revised Project could result in an adverse effect on candidate, sensitive or special-status reptile, and amphibian and fish species, both directly and through habitat modification.</p>	<p>b) Any tree removal with breast diameter height (dbh) greater than 12 inches or with complex bark structures or with cavities shall be felled and allowed to rest on the ground overnight prior to removal.</p> <p>c) Maintenance activities shall avoid the dust and dawn period to preclude impacts to emerging bats. Rather, activities shall occur between 1 hour after sunrise and one hour before sunset.</p> <p>Mitigation Measure Bio-3A, Limitations on the Grading Period: To the extent feasible, limit grading in the river area to the dry season, between June 15 and October 15, when low flow conditions are present in the River. Limit vegetation removal to the period between June 15 and November 15 to avoid potential impacts to anadromous fish species and nesting birds, and to avoid interfering with adult spawning migrations or the outmigration of smolts.</p> <p>Mitigation Measure Bio-3B: Pre-Construction Surveys. A qualified USFWS-approved biologist shall conduct pre-construction surveys of all ground disturbance areas within suitable habitats in the Project site to determine if California red-legged frogs and Western pond turtles are present prior to the start of grading operations. These surveys shall be conducted within 48 hours prior to the initiation of grading activities in habitats where these species have the potential to occur.</p> <p>a) Preconstruction surveys to detect western pond turtles should focus on suitable aerial and aquatic basking or nesting habitat such as logs, branches and riprap, as well as the shoreline and adjacent warm, shallow waters where pond turtles may be present below the water surface beneath algal mats or other surface vegetation.</p> <p>b) Where feasible, preconstruction surveys to detect western pond turtle nesting activity should be concentrated within 0.25 mile of suitable aquatic habitat and should focus on areas along south- or west-facing slopes with bare hard-packed clay or silt soils or a sparse vegetation of short grasses or forbs.</p> <p>Mitigation Measure Bio-3C, Relocation: If any special status species are found, either they shall be re-located, or an exclusion zone shall be established and maintained around the occupied habitat until the biological monitor, in consultation with the resource agencies, determines construction activities can proceed in these zones.</p> <p>a) Any re-location efforts shall be pre-approved by the resource agencies.</p> <p>b) If CRLF, WPT or their nesting sites are found, the biologist shall contact the CDFW to determine whether relocation and/or exclusion buffers and nest enclosures are appropriate. If the CDFW approves of moving the animal, the biologist shall be</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<p>allowed sufficient time to move the animal(s) from the work site before work activities begin.</p> <p>Mitigation Measure Bio-3D, Implement Best Management Practices: Avoidance and minimization measures shall be employed prior to and during construction, as required and/or approved by the resource agencies, to protect special status species and sensitive habitats. These measures shall include, but not be limited to:</p> <ol style="list-style-type: none"> a) A USFWS-approved biologist shall be present during grading and clearing activities that could result in harm to these species. The approved biologist shall have stop-work authority in the event that a California red-legged frog or Western pond turtle is found within the Project site. b) Install exclusion fencing around grading and clearing zones to keep out special-status. The areas approved for grading and clearing shall be delineated with temporary high-visibility orange-colored fence at least 4 feet in height, flagging, or other barriers. Signs shall be posted that clearly state that construction personnel and equipment shall not move outside of the marked area. The fencing shall be inspected by the USFWS-approved biologist and maintained daily until project completion. The fencing shall be removed only when all construction equipment is removed from the site. No construction activities shall take place outside the delineated project site. c) Have the Biological Monitor survey each zone periodically and relocate species as necessary. d) Prior to construction, a qualified biologist shall conduct training sessions to familiarize all construction personnel with: <ul style="list-style-type: none"> • identification of California red-legged frog and their habitat, Western pond turtle and their habitat and identification of protected salmonids and their habitats, • general provisions and protections afforded by the Endangered Species Act, • measures implemented to protect the species, and • a review of project site boundaries e) To avoid attracting predators, food-related trash shall be kept in closed containers and removed daily from the project site. f) At the end of each day, all construction-related holes or trenches deeper than 1 foot shall be covered to prevent entrapment of potential California red-legged frog. During the process of reviewing the USACE permit application, the USACE will determine the need to enter into consultation with the USFWS for impacts on the 	

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>Bio-4: Development of the Revised Project will result in the direct removal and fill of approximately 0.34 acres of seasonal wetlands defined by the US Army Corps of Engineers as jurisdictional wetlands under Section 404 of the Clean Water Act.</p>	<p>federally listed California red-legged frog. If consultation with the USFWS for the California red-legged frog is needed, the City of Petaluma would comply with all the terms and conditions required by the USFWS.</p> <p>Mitigation Measure Bio-4: Compensation for Seasonal Wetlands Fill (as amended). The Project applicant shall provide on-site compensatory mitigation sufficient to achieve a no-net-loss standard, subject to additional requirements of the permitting agencies. Compensatory mitigation shall be achieved through creation restoration and enhancement of wetland habitat acreage at appropriate locations within the Project site, providing new, higher quality wetlands habitat value than the low value habitat lost due to Project fill and terrace grading.</p> <ul style="list-style-type: none"> a) Final site plans should seek to avoid and retain wetland features where feasible b) Compensatory wetland habitat shall ensure no net loss of habitat functions and values. c) Compensatory ratios shall be based on site-specific information and determined through coordination with the Corps and RWQCB. d) A Restoration and Monitoring plan for the compensatory wetlands shall be developed and implemented by the applicant. The Restoration and Monitoring Plan shall describe how the new wetlands shall be created and monitored over a minimum establishment period of five years. 	<p>Less than Significant</p>
<p>Bio-5: The Revised Project’s proposed terraced grading plan for the banks of the Petaluma River could result in substantial adverse effects on riparian habitat.</p>	<p>Mitigation Measure Bio-5A, Riparian Preservation Zone: Final grading plans for the Project’s proposed terraced grading concept along the Petaluma River shall include a Riparian (Willow) Preservation Zone comprising the approximately 0.30 acres of high quality riparian habitat along the River. Preservation of existing high quality riparian vegetation shall be achieved in these zones while accommodating widened channel designs that provides acceptable flood control containment. The River Plan calls for all development (including grading and flood control alterations) to be severely restricted within high priority Riparian Preservation Zones, all development, including trails, grading and flood control alterations, shall be prohibited in these Zones. Minimal intrusions in a carefully selected location could be authorized by the City for interpretive purposes only.</p> <p>Mitigation Measure Bio-5B, Riparian Tree Preservation (as amended): A consulting arborist shall review preliminary grading plans for the river terrace and for the riverside path, prior to issuance of grading plans. The arborist shall recommend tree preservation measures (i.e., protective fencing, grading limits and tree pruning plans) to ensure preservation of individual riparian and oak woodland trees within and abutting the riparian zone. This measure shall also apply to those riparian zones as expanded by the</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<p>river terracing project, including trees #65-68, 70-73, 80, 106-107, 209-212 and 205-208, and the 0.30-acre willow thicket designated as the Riparian (Willow) Preservation Zone.</p> <p>Mitigation Measure Bio-5C, Habitat Mitigation and Monitoring Plan: A final Habitat Mitigation and Monitoring Plan (HMMP) shall be submitted for review and approval by the regulatory agencies and the City. The City shall authorize the HMMP prior to issuance of the terrace grading plans. The Final HMMP shall be implemented. The HMMP shall include a landscape and biological restoration plan prepared and signed by a licensed landscape architect, either experienced in environmental restoration or with appropriate consultation and input from wetlands biologists, soil scientists and hydrologists. The goals and objectives for the HMMP must be clearly stated, and the plans must be developed based on a thorough analysis of existing biologic, soils, and hydrologic conditions, including a consideration of the historic plant community.</p> <ul style="list-style-type: none"> a) When stabilized and restored, the Restoration Zone shall be designed and constructed such that it contributes significantly to the wildlife and fishery habitat values and water quality of the greenway. b) Restoration treatments shall include re-grading, slope stabilization and planting with genetically local native riparian and upland species. c) Access shall be generally restricted from the banks and bank-top areas in this zone, except at carefully selected and controlled points where overlooks and interpretive areas are permitted. 	
<p>Bio-6: The Revised Project could result in potentially substantial adverse effects on the aquatic habitat within the Petaluma River, potentially interfering with the movement of native resident and migratory fish.</p>	<p>Mitigation Measure Bio-6, Terraced Grading Erosion Control/Stormwater Pollution Prevention Plan: The Project applicant shall prepare and implement a specific Terraced Grading Erosion Control Plan for all terrace grading work and trail construction within and abutting the Petaluma River floodplain. The discharge or creation of potential discharge of any soil material including silts, clay, sand, or any other materials to the waters of the State is prohibited.</p> <ul style="list-style-type: none"> a) Install and maintain silt fences adjacent to the perimeter of the work area and immediately downstream of disturbed areas and install and maintain erosion control blankets on all disturbed ground to prevent inadvertent transport of sediments into the Petaluma River. The Project applicant shall be responsible for ensuring that sediment-control devices are installed and maintained correctly. The devices shall be inspected frequently (e.g., daily) to ensure they are functioning properly. Controls shall be immediately repaired or replaced or additional controls shall be installed as necessary. Sediment that is captured in these controls may be disposed of onsite in an appropriate approved area or off-site at an approved disposal site. 	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<ul style="list-style-type: none"> b) Soil materials stockpiled at the site must be covered with plastic sheeting at the end of each workday until permanently protected with rock ballast materials. c) Spill prevention and control BMPs shall be implemented throughout grading activities. Train onsite personnel in spill prevention practices, and provide spill containment materials near all storage areas. All contractors are responsible for familiarizing their personnel with the information contained in the Storm Water Pollution Prevention Plan. d) Spills, leaks, and other problems of a similar nature shall be resolved immediately to prevent unnecessary impacts. A plan for the emergency cleanup of any spills of fuel or other material shall be available on-site, and workers shall be trained in techniques to reduce the chance for spills, contain and clean up spills, and properly dispose of spilled materials for the potential pollutants. Adequate materials for spill cleanup shall be maintained on-site and readily available to the employees of each contractor or subcontractor for immediate response should a spill occur on-site. e) Maintain all construction equipment to prevent oil or fluid leaks, use drip pans or other secondary containment measures beneath vehicles during storage, and regularly inspect all equipment and vehicles for fluid leaks. f) Water down all disturbed ground surfaces as necessary to minimize windblown dust. g) Fuel and service vehicles and equipment that are used during the course of the proposed grading operation, and park all grading equipment overnight on the upland portion of the site and in a safe area outside of sensitive habitats. Wash vehicles and equipment off-site. h) Implement the HMMP immediately after grading operations are complete to re-vegetate all disturbed areas. 	<p>Mitigation Measure Bio-7A, Hooding or Shielding of Outdoor Lighting Fixtures: All outdoor lighting including any lighting along the river trail shall be focused and directed to the specific location intended (e.g., walkways, sidewalks, paths). Such fixtures shall be hooded or shielded to avoid the production of glare, minimize up light and light spill. All light fixtures shall be located, aimed, or shielded to minimize spill-light into the riparian corridor and associated trees; this shall be demonstrated as a component of SPAR review. (The River Plan Design Guidelines states that some portions of the river trail may be lit.)</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<p>Mitigation Measure Bio-7B, Pre-Construction Surveys (see Mitigation Measure Bio-1A): This measure requires pre-construction biological surveys and determination of avoidance measures as necessary during construction.</p> <p>Mitigation Measure Bio-7C, Avoidance and Minimization (see Mitigation Measure Bio-3): This measure requires avoidance and minimization measures to be employed prior to and during all grading and construction activities within the Petaluma River, as required and/or approved by subsequent permitting agencies, to protect special status species and sensitive habitats. These measures include, but are not limited to restricting grading operations to the dry season (between June 15 and October 15) when low flow conditions are present in the River, and restricting vegetation removal to the period of June 15 to November 15 to avoid potential impacts to anadromous fish species and nesting birds.</p>	
<p>Bio-8: The Revised Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional or state habitat conservation plan.</p>	<p>None needed.</p>	<p>No Impact</p>
<p>Bio-9: Implementation of the Revised Project could result in a substantial adverse effect on riparian habitat through the introduction of invasive, non-native plants.</p>	<p>Mitigation Bio-9, Incorporation of Native Plants in Landscaping Plans: As part of the Project’s Site Plan and Architectural Review process, the Project applicant shall submit a Landscape Plan for review and approval by the City. The landscape Plan shall incorporate planting of native trees and ground cover plants consistent with the goals and objectives for this reach of the River as described in the Petaluma River Access and Enhancement Plan.</p> <ul style="list-style-type: none"> a) The Landscape Plan shall only include plants from the City’s approved list of commonly occurring native riparian plant species for landscaping proposed within the Petaluma River Preservation and Restoration zones. b) In the Buffer Zone (including 200 feet from the River centerline and its extension 50’ from oak drip lines and wetlands and 30’ from constructed river terrace top of bank), the Landscape Plan shall incorporate riparian buffer zone plantings as recommended from the City of Petaluma’s approved list (including River Plan page 165 and Chapter 5, Table 1). The planting objectives in this riparian buffer will be to minimize removal of native vegetation and re-plant, where appropriate, with native plants species. c) Landscaping within the River Oriented Development Zone (i.e., the Project’s upland development area on existing Parcel -009) shall include use of "compatible" plants, as defined in the River Plan (Chapter 5, Tables 1 and 2). 	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>Bio-10: The Revised Project could conflict with local policies and ordinances protecting biological resources, including the City’s Petaluma River Plan Corridor.</p>	<p>d) Although not included as part of the River Plan’s River Oriented Development Zone, landscaping within existing Parcel -006 should be similar to that in the RODZ.</p>	<p>Less than Significant</p>
<p>Bio-11: The Revised Project would substantially reduce, but could still potentially conflict with local policies and ordinances protecting biological resources, including the City’s tree preservation policies and ordinance.</p>	<p>Mitigation Bio-10A, Limitations on Improvements within the Petaluma River Plan Corridor (as amended): No residential structures or directly related residential components of the Project shall extend into the Petaluma River Plan Corridor (comprised of the Preservation, Restoration, and Buffer Management Zones of the River Plan, see Corridor mapped at Figure 2-5). The only improvements allowed within the River Plan Corridor include the river trail, terracing and restoration. During the SPAR process, the Planning Commission could allow minor encroachments associated with residential improvements, such as a detention basin and/or segments of sidewalk within the outer buffer management zone, if found to be consistent with the intent of the River Plan and not impactful to the River Plan Corridor.</p> <p>Mitigation Bio-10B, RODZ review at SPAR: The Site Plan and Architectural Review process shall include evaluation and review of the Revised Project for consistency with River Oriented Development Zone (RODZ) policies and design guidelines. (See River Plan page 79-80 and Chapter 9: Design Guidelines.) As the concept plan for the apartment project is fully detailed for Site Plan and Architectural Review, the northern portion of the Project that is within the RODZ (Parcel -009) shall be designed pursuant to the RODZ Guidelines.</p> <p>Mitigation Measure Bio-11A, Ensure Preservation of Existing Trees (as amended): The final designs of the residential portion of the Project should be designed to reflect the goal of preserving protected trees located within the Petaluma River Plan Corridor and those oaks isolated in the RODZ. While it is recognized that the preservation of all existing trees on the Project site may conflict with reasonable land development considerations and with creation of the terrace directed by the General Plan, the final design of the Project, to be reviewed at SPAR, shall seek to preserve the most desirable and significant healthy trees on site.</p> <p>a) No protected tree shall be removed unless a tree removal, grading or building permit is issued by the Community Development Department.</p> <p>b) As the Revised Project concept plan depicts, the residential structures shall not extend into the Petaluma River Plan Corridor. Protected healthy oak trees located within the Petaluma River Corridor (trees #69, 75, 77 and 79) shall be preserved. Within the Petaluma River Plan Corridor, the small California bay (#74) shall also be preserved as a native tree within the Corridor. The eucalyptus (#76) shall be removed as an exotic species undesirable near a riparian setting.</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>c) As the Revised Project concept plan depicts, not more than three mature oak trees shall be removed from the RODZ (i.e., within APN-009) to accommodate the Project. The Revised Project’s concept plan shows these as oaks #59, 60 and 61. Younger oaks #101 and 202 shall also be preserved. Should the updated arborist review (per Mitigation Measure Bio-11e) finds that any of the large oaks proposed to be preserved by the concept plan is not healthy and a good candidates for preservation, the site plan designed for SPAR shall instead preserve another of the large oaks on APN-009.</p> <p>d) The Site Plan and Architectural Review process shall further consider site design modifications to preserve protected trees to the greatest extent possible at APN-006 generally (as directed by the Tree Ordinance). Each Protected tree shall be further considered for preservation; oaks #1, 13, 17 and 100 shall be particularly pursued. Tree protection on APN-006 shall be equal to that depicted by the Revised Project’s concept plan. Thinning of the redwoods along Graylawn may be authorized by SPAR if recommended by the arborist. The EVA shall be designed to accommodate oaks 1 and 2, but should the Fire Marshal and the arborist find this impossible, SPAR is authorized to allow their removal pursuant to Mitigation Measure Bio 11-B.</p> <p>e) During preparation of the site plan for SPAR, the applicant shall work collaboratively with the arborist and the civil engineer to design a site plan that addresses Bio 11B through 11D. The arborist shall provide further tree preservation analysis as part of the SPAR submittal, and shall ensure that all trees over 4 inches at breast height are included in the analysis.</p>	<p>Mitigation Measure Bio-11B, Protected Tree Replacements: For all protected trees permitted by the City to be removed, the project applicant shall provide replacement trees at the following ratios:</p> <p>a) All protected trees determined by the Project arborist to be in good or excellent health, and/or with moderate to good structure, shall be replaced on a one-to-one trunk diameter basis. (Example: A 24-inch protected tree in good or excellent condition must be replaced with new trees totaling 24 inches in trunk diameters.)</p> <p>b) All protected trees determined by the Project arborist to have fair or marginal health, and/or with marginal structure, shall be replaced on a two-to-one trunk diameter basis. (Example: A 24-inch protected tree in fair-to-marginal condition must be replaced with new trees totaling 12 inches in trunk diameter)</p> <p>c) Replacement tree ratios shall be applied as follows:</p> <ul style="list-style-type: none"> • 24-inch box replacement tree = 2-inch replacement trunk diameter 	

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<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<ul style="list-style-type: none"> • 36-inch box replacement tree = 3-inch trunk replacement diameter • 48-inch box replacement tree = 4-inch trunk replacement diameter <p>d) Replacement trees shall be at minimum 24-inch box size.</p> <p>e) All protected trees determined by the Project arborist to have poor health or poor structure are not required to be replaced.</p> <p>f) Replacement trees shall be planted within the Project boundaries to the extent feasible, and the applicant shall find suitable off-site location(s) for the required trees if on-site replacement is found infeasible.</p> <p>g) If the location of replacement tree planting will remain as a natural area suitable for the healthy and long-term growth of native trees, replacement of protected trees should occur in-kind. If the location of replacement tree planting will be part of an irrigated, ornamental landscape area, replacement of protected trees may occur with a species as identified by the project arborist and approved by the City Planning Department</p>	
	<p>Mitigation Measure Bio-11C, Tree Protection Plan: All trees designated for preservation must have a good chance of long-term survival; specific recommendations to avoid firstly construction and then long-term impacts shall be included for each to-be-preserved tree. Simply preserving a tree does not excuse it from designated mitigation requirements. Preserved trees must have a good chance to survive after all the impacts of construction are considered. Consistent with the recommendations for tree protection as listed in the Petaluma River Access and Enhancement Plan (RAEP), a tree protection plan for the Project shall be prepared by a licensed landscape architect, arborist or certified forester and approved by the City, for all trees to be preserved within the Project to protect them during on-site grading and construction. A conceptual tree protection plan for the Project shall be provided for SPAR review, and a final tree protection plan for the Project shall be included as part of all Public Improvement Plans and grading permits issued for the Project. The following tree protection measures from the River Plan shall implemented:</p> <p>a) All trees over five feet tall, or with a diameter over six inches measured at 4.5 feet in height over ground level, must be drawn to scale on plans, including species, approximate age and height, diameter at three feet and drip line. Also, show trees on adjacent property if the property line abuts or goes under drip line. Oaks to 4" in diameter, within 50' of the property line should be called out separately.</p> <p>b) Plans shall indicate clearing, stripping and grading limits. Clearing and stripping limits must be staked on-site by the project engineer.</p>	

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<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<ul style="list-style-type: none"> c) All utility plans must be included and their location relative to trees shown on plans. d) Specific trees to be saved must be noted on the grading plans and shall be clearly marked on all plans and in the field. e) Trees within the clearing areas (including exotics) noted to be removed shall be clearly marked on plans and in the field. f) Applicants are encouraged to work closely with City staff to decide which trees, if any, must be removed. Convincing and compelling reasons must be provided for the removal of any native species. g) Bulkheads or tree wells may be used around trees where grading may be detrimental to the tree's preservation. h) No grading shall be done within the drip line of trees to be saved except where noted on approved grading or landscaping plan. i) Construction equipment is prohibited from areas of the site where no grading will occur. Storage of equipment, vehicles, topsoil or materials shall not be permitted within the drip line of trees to be saved. Areas of natural vegetation shall be protected as necessary. j) Trees to be saved shall be fenced or protected to the satisfaction of the Planning Director prior to start of construction, and maintained throughout the construction period. k) If grading is permitted under a drip line, once grade has been established, a temporary six-foot tall chain link fence should be installed around the tree at a distance of six feet minimum (or at a distance to be determined by arborist), from the trunk. This fence is to remain until construction is complete. Nothing may be stored inside this fence. l) All excavation within a tree's drip line should be done by hand with a shovel and pick. If a woody root is encountered, care should be taken not to split the root, as this would create an entrance site for disease that can destroy the root and grow into the tree via the root. The roots should be wrapped in wet burlap to protect them from drying out while they are out of the soil. If a root needs to be cut, a very sharp hand-pruning saw should be used. Again, be careful not to split or twist the root or allow it to dry out. m) If a utility line must be installed within a drip line, drill or bore the conduit through the soil rather than digging a trench. Less root damage will occur. Place all utility lines in the same passage, if possible, to avoid disruptions to the root zone. 	

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<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<ul style="list-style-type: none"> n) There should be no trenching, drilling, or boring within six feet of the trunk. In parking lots, irrigation and airification devices must be installed. o) If paving is necessary within the drip line, use porous materials such as gravel, cobbles, brick with sand joints, wood chips or bark mulch. p) Non-oak trees should be irrigated before construction starts. Oak trees should be irrigated prior to August 1. This will ensure that the trees can better withstand the stress of construction. Irrigation is extremely important during spring and summer for stressed, mature non-oak native species. q) After construction, do not fertilize the native oak trees until the following season's leaf is matured. This prevents a construction stressed tree from further decline by over-expending its energy reserves in response to the fertilizer. r) During the course of construction operations, any pruning of trees designated on plans as "to be saved", shall be performed under the supervision of a qualified arborist. No pruning by construction personnel is permitted. Care shall be taken to ensure that proper pruning, thinning and treatment for disease prevention shall be employed. s) Any additional tree removals necessitated during the course of construction operations, but not shown for removal on approved plans, shall be inspected and approved by the Planning Department prior to such removals. Planting of specimen trees (36-inch box) at a compensation rate of at least 3:1, or as determined by the City will likely be required to replace trees damaged or removed during construction. t) On-site inspections by the project engineer and landscape architect shall ensure that there is no encroachment into the areas beyond the "limits of grading" as shown. Trees outside the grading area or designated "to be saved" are to be adequately protected during construction operations. u) Landscaping under native oak trees should consist of drought tolerant plants or California native plants that are drought tolerant in nature and must not require supplemental water so as to be detrimental to the trees. There is to be no landscaping within the drip line. Chipped bark, mulch or cobblestones are suitable for this area. No lawns should be planted within the drip line. v) Permanent irrigation systems should be bubbler, drip or sub-terrain only. No sprinkler systems should be allowed within six feet of trees, except for Oaks. Oaks may have a temporary drip only. w) A manually operated drip system is the preferable method of irrigation within the drip line, although irrigation is not recommended under established native oaks at 	

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<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>Bio-12: Removal of plant materials hosting <i>Phytophthora ramorum</i> during tree removal could result in the spread of Sudden Oak Death to the Petaluma River riparian habitat.</p>	<p>all, and especially not in the summer. Never allow irrigation water to seep into the six-foot radius or pool around the root crown</p> <p>Mitigation Measure Bio-12A, Infected Tree Identification: Pursuant to the City’s Tree Removal Permit process and prior to Public Improvement Plan approvals and grading permit issuance, all trees of “at-risk” species proposed for removal shall be surveyed for sudden oak death pathogens and individual treatment methods identified.</p> <p>Mitigation Measure Bio-12B, Tree Removal Precautions: If a tree needs to be removed, the tree stump should be cut as close to the ground as practical. Stump grinding is not recommended because the equipment may become contaminated by soil and result in pathogen spread when used at another location. The operation of vehicles or heavy equipment in such areas may lead to further disease spread when soil is disturbed and moved around. If at all practical, tree removal should be scheduled between June to October when conditions are warm and dry, and avoid removing diseased trees when moist conditions favor pathogen spread (November to May).</p> <p>Mitigation Measure Bio-12C, Debris Removal Precautions: Proper disposal of infested material is an effective means of limiting the spread of pathogens. In infested areas, leaving infected or dead trees on site has not been shown to increase the risk of infection to adjacent trees. Removal from a property is only recommended if it is the first infected tree to be detected in the area, if the fire risk is high, or if the dead tree is a safety hazard. If debris cannot be left on site, infested material should be disposed of at an approved and permitted dump facility.</p> <ol style="list-style-type: none"> a) Whenever possible, the tree debris should be left on-site in a safe area where large woody debris will not move, endanger the public, contaminate uninfected hosts or constitute a fire hazard. b) When infected oaks are cut down and left on site, branches should be chipped and larger wood pieces cut and split. Woodpiles should be stacked in sunny locations to promote rapid drying. c) Firewood and chips should not be left in an area where they might be transported to another location (e.g. trailside, parking areas, etc.). 	<p>Less than Significant</p>
<p><u>Cultural Resources</u></p>		
<p>Cultural-1: The Revised Project would not cause a substantial adverse change in the significance of a known historical resource; however, there is a potential that unidentified resources may be present within the onsite wells, the removal of which could</p>	<p>Mitigation Measure Cultural-1: Monitoring of Well Abandonment. When the two existing wells on the site are removed, a qualified archaeologist shall be present to record and recover any potentially significant historic-era deposits that may be uncovered. If historic materials are observed, they shall be recorded on the appropriate DPR forms and such forms filed with the CHRIS and the Planning Division. In the event</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
result in a potentially significant impact to historical resources unless mitigated.	that the onsite wells are abandoned and capped in place, then monitoring would be unnecessary, as no disturbance to potential resources would occur.	
Cultural-2: The Revised Project has the potential to affect adversely the significance of undiscovered archeological or Tribal cultural resources.	<p>Mitigation Measure Cultural-2: Discovery of Unknown Archaeological Resources and Tribal Resources (as amended). To reduce potential impacts on prehistoric site deposits and or Tribal cultural resources that may be discovered during construction:</p> <p>a) The applicant shall retain the services of a qualified archaeological consultant approved by the City of Petaluma and from the Federated Indians of Graton Rancheria’s list of qualified archaeologists who have also demonstrated the ability to work cooperatively with the Tribe, to monitor ground-disturbing activity near the Petaluma River; that is during the river terrace grading work. The archeologist shall monitor ground-disturbing activities according to a schedule agreed upon by the archeological consultant and the City of Petaluma. The monitor need only be present during activities that could affect significant archeological deposits or Tribal cultural resources. After considering the types of project activities and the probabilities of encountering a significant archaeological deposit or Tribal cultural resource, the City and the archaeologist shall adjust the monitoring frequency accordingly, or implement a cessation of the monitoring schedule altogether.</p> <p>b) If a concentration of artifacts, cultural soils or Tribal cultural resources is encountered during construction anywhere on-site, all soil-disturbing activities within 100 feet of the discovery shall cease. The archaeological monitor shall have the authority to stop work and temporarily redirect crews and heavy equipment until the resource is evaluated. The archaeological monitor shall immediately notify the City of Petaluma Planning Division of resources encountered. The archeological monitor shall, after making a reasonable effort to assess the identity, integrity and significance of the encountered resource, present the findings of this assessment to the City and provide treatment recommendations.</p>	Less than Significant
Cultural-3: The Revised Project has the potential to affect adversely the significance of currently undiscovered paleontological resources.	<p>Mitigation Measure Cultural-3: Discovery of Unknown Paleontological Resources. In the event paleontological resources are encountered, the applicant shall procure a qualified paleontologist approved by the City of Petaluma to document, evaluate and assess the significance of the resource in accordance with the criteria set forth in the guidelines adopted by the Society of Vertebrate Paleontology, CEQA Guidelines Section 15064.5.</p> <p>a) In the event of discovery during construction, excavations within 100 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995). The paleontologist shall notify the appropriate agencies to determine</p>	Less than Significant

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<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<p>procedures that would be followed before earthmoving or grading is allowed to resume at the location of the find.</p> <p>b) If the City determines that avoidance is not feasible, the paleontologist shall prepare and recommend to the City an excavation plan for mitigating the effect of the project on the qualities that make the resource significant. The plan shall be submitted to the City for review and approval prior to resuming construction activities.</p>	
<p>Cultural-4: Ground-disturbing activities associated with site preparation, grading, and excavation could disturb human remains, including those interred outside of formal cemeteries, which would be considered a potentially significant impact.</p>	<p>Mitigation Measure Cultural-4: Discovery of Human Remains. In the event that human remains are uncovered during earthmoving activities, all construction excavation activities shall be suspended and the following measures shall be undertaken in accordance with the Health and Safety Code Section 7050.5:</p> <p>a) The Sonoma County Coroner shall be contacted to determine that no investigation of the cause of death is required.</p> <p>b) If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission within 24 hours.</p> <p>c) The project sponsor shall retain a City-approved qualified archaeologist to provide adequate inspection, recommendations and retrieval, if appropriate.</p> <p>d) The Native American Heritage Commission shall identify the person or persons believed to be the most likely descended from the deceased Native American, and shall contact such descendant in accordance with state law.</p> <p>e) The project sponsor shall be responsible for ensuring that human remains and associated grave goods are reburied with appropriate dignity at a place and process suitable to the most likely descendent.</p>	<p>Less than Significant</p>
<p>Cultural-5: The Revised Project site is not known to contain Tribal cultural resource defined as a sacred place or an object with cultural value to a California Native American tribe.</p>	<p>Mitigation Measures Cultural-2 through -4 identify procedures should any unknown tribal cultural resources be disturbed, and impacts of the Project on currently unknown Tribal cultural resources would be less than significant.</p>	<p>Less than Significant</p>
<u>Geology and Soils</u>		
<p>Geo-1: The Revised Project would not expose people or structures to potentially substantial adverse effects involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or other substantial evidence.</p>	<p>None needed.</p>	<p>Less than Significant</p>

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Geo-2: The Revised Project could expose people or structures to potentially substantial adverse effects involving strong seismic ground shaking.	<p>Mitigation Measure Geo-2A, Compliance with California Building Code: Project development shall meet all requirements of the California Building Code Vols. 1 and 2, 2016 Edition or the most recent edition at the time of development. These standards include the California Building Standards 2015 Edition published by the International Conference of Building Officials (or most recent edition at the time of development), and as modified by the amendments, additions and deletions as adopted by the City of Petaluma.</p> <p>Mitigation Measure Geo-2B, Incorporation of Geotechnical Investigation Recommendations: The recommendations of RGH Consultants' Geotechnical Engineering Report Update for Sid Commons (January 20, 2015) regarding foundation and structural design, or equivalent measures, shall be incorporated in the final design of each structure, contingent upon concurrence by the City's Engineer and Chief Building Official. To ensure that appropriate construction techniques are incorporated, the Project's Geotechnical Engineer shall inspect the construction work and certify to the City, prior to issuance of a certificate of occupancy, that all improvements have been constructed in accordance with the approved Geotechnical Investigation specifications.</p>	Less than Significant
Geo-3: The Revised Project would not expose people and structures to potentially substantial adverse effects involving seismic-related ground failure, including liquefaction.	None needed.	Less than Significant
Geo-4: The Revised Project would not expose people or structures to potential substantial adverse effects due to the risk of loss, injury or death involving landslides.	None needed.	Less than Significant
Geo-5: Portions of the Revised Project site proposed for development contain localized expansive soil, creating substantial risks to property.	<p>Mitigation Measure Geo-5A, Soil Treatment: The detrimental effects of expansive soil movements can be reduced by pre-swelling expansive soils and covering them with a moisture fixing and confining blanket of properly compacted non-expansive engineered fill (select fill). Select fill can consist of approved non-expansive on site soils, imported non-expansive materials or lime stabilized on-site clay soils. In building areas, the blanket thickness of select fill required depends on the expansion potential of the soils and the anticipated performance of the foundations and slabs. In order to effectively reduce foundation and slab heave given the expansion potential of the site's soils, a blanket thickness of 30 inches shall be utilized in building areas at the Project site. In exterior slab and paved areas, the select fill blanket need only be 12 inches thick. On-site and imported select fill materials shall have a low expansion potential (EI less than 50), and conform in general to the following requirements:</p>	Less than Significant

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<p>a) Sieve size of 6 inches – 100% passing (by dry weight) b) Sieve size of 4 inches – 90% to 100% passing (by dry weight) c) No. 200 – 10% to 60% passing (by dry weight)</p> <p>Mitigation Measure Geo-5B, Foundation Design: The Project’s proposed structures shall be supported on either post-tensioned slabs or mat slabs. These slabs shall be designed using the expansion characteristics of the soils. Grading to prepare the building pads shall consist of reworking the upper 2 to 3 feet of surface soils by excavating these soils, moisture conditioning them to at least 4 percent above optimum moisture content, and compacting them to at least 90 percent relative compaction, or as otherwise specified by the geotechnical engineer.</p> <p>Geo 6: The Revised Project could result in the loss of topsoil as a result of development on potentially erodible soils</p>	<p>Mitigation Measure Geo-5B, Foundation Design: The Project’s proposed structures shall be supported on either post-tensioned slabs or mat slabs. These slabs shall be designed using the expansion characteristics of the soils. Grading to prepare the building pads shall consist of reworking the upper 2 to 3 feet of surface soils by excavating these soils, moisture conditioning them to at least 4 percent above optimum moisture content, and compacting them to at least 90 percent relative compaction, or as otherwise specified by the geotechnical engineer.</p> <p>Mitigation Measure Geo-6, Erosion Control Plan: Prior to issuance of a grading permit, an erosion control plan, along with grading and drainage plans, shall be submitted to the City Engineer for review. All earthwork, grading, trenching, backfilling, and compaction operations shall be conducted in accordance with the City of Petaluma’s Subdivision Ordinance (#1046, Title 20, Chapter 20.04 of the Petaluma Municipal Code) and Grading and Erosion Control Ordinance #1576, Title 17, Chapter 17.31 of the Petaluma Municipal Code). These plans shall detail erosion control measures such as site watering, sediment capture, equipment staging and laydown pad, and other erosion control measures to be implemented during construction activity on the project site.</p> <p>a) The Erosion Control Plan shall include winterization, dust control, erosion control and pollution control measures conforming to the ABAG Manual of Standards for Erosion and Sediment Control.</p> <p>b) The Erosion Control Plan shall describe the "best management practices" (BMPs) to be used during and following construction to control pollution resulting from both storm and construction water runoff. The Plan shall identify locations for vehicle and equipment staging, portable restrooms, mobilization areas, and access routes.</p> <p>c) Recommended soil stabilization techniques include placement of straw wattles, silt fences, berms, and gravel construction entrance areas or other control to prevent tracking sediment onto city streets and into storm drains.</p> <p>d) Public works staff or representatives shall visit the site during grading and construction to ensure compliance with the grading ordinance and plans, and note any violations, which shall be corrected immediately.</p>	<p>Less than Significant</p>
<p>Geo-7: The Revised Project would not be supported by the use of septic tanks or alternative wastewater</p>	<p>None needed.</p>	<p>No Impact</p>

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disposal systems that would be reliant upon appropriate soil capabilities.		
Geo-8: Development of the Revised Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	None needed.	No Impact
<u>Greenhouse Gas Emissions</u>		
GHG-1: In the absence of BAAQMD thresholds for construction-related greenhouse gas emissions, emissions from construction have been conservatively compared to the threshold of significance for operation (1,100 MT CO ₂ e/year), and found to generate emissions that exceed that threshold.	BAAQMD recommends that all proposed projects implement Best Management Practices to reduce GHG emissions during construction. Measure AQ-4A as set forth in Chapter 5, provides for implementation of these BMPs, which would reduce construction-period GHG emissions.	Less than Significant
GHG-2: The Revised Project would generate greenhouse gas emissions from both direct and indirect sources that would produce total emissions of more than 1,100 metric tons of CO ₂ e annually, but not more than 4.6 metric tons of CO ₂ e per service population annually.	None needed.	Less than Significant
GHG-3: The Revised Project would not fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions.	None needed.	Less than Significant
<u>Hazards and Hazardous Materials</u>		
Haz-1: The Revised Project site is not located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and development of the Project at this site would not create a significant hazard to the public or the environment.	Mitigation Measure Haz-1A, Soil Testing and Regulatory Compliance (as amended): Prior to issuance of building or grading permits, the project applicant shall conduct a soil testing program to identify the potential for agricultural chemicals, agriculture-related petroleum hydrocarbon spills, lead-based paint or elevated levels of contaminants near the rail tracks to be present in the soils at levels exceeding recommended health screening levels. Should any impacted soil be discovered that exceeds human health screening levels for residential soil as noted in DTSC’s HERO HHRA Note 3 criteria and/or Environmental Screening Levels (ESLs), such soils shall be excavated and removed for appropriate off-site disposal prior to development pursuant to existing regulatory requirements.	Less than Significant

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	<p>Mitigation Measure Haz-1B, Discovery of Unknown Contaminants (as amended): If unknown contamination, underground tanks, containers or stained or odorous soils are discovered during construction activities, appropriate investigation, sampling and comparison of data collected with health-based screening levels and/or consultation with a regulatory oversight agency shall be conducted.</p>	
<p>Haz-2: Construction activities require the use of fuels and oils in construction equipment that may be considered hazardous if improperly used, stored or handled. Residential developments generally utilize only incidental amounts of household hazardous chemicals. Compliance with applicable regulations will ensure that construction and operation of the Project will not create a significant hazard to the public or the environment through the routine transport, use or disposal of potentially hazardous materials.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p>Haz-3: The Revised Project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</p>	<p>Specific design requirements and implementation measures for minimizing Project-generated erosion and for controlling fuel/hazardous material spills to be set forth in the applicant's SWPPP are identified in Mitigation Measure Hydro-1: SWPPP Requirements (see Chapter 11: Hydrology).</p>	<p>Less than Significant</p>
<p>Haz-4: The Revised Project will not produce hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste that could affect an existing or proposed school.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p>Haz-5: The Revised Project would result in increased hazards associated with increased presence along the rail racks.</p>	<p>Mitigation Measure Haz-5, Fencing (as amended): As demonstrated in the Revised Project's conceptual design, the Project shall include an open-design appropriate fence along the edge of and parallel to the rail tracks, with consideration provided to the protection of existing trees, to limit access onto the railroad right-of-way. The final fence design shall be subject to SPAR review and approval.</p>	<p>Less than Significant</p>

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<p>Haz-6: The Revised Project would not result in increased hazards associated with a new at-grade rail crossings, including traffic, bicycle and pedestrian crossings at a potentially unsafe location.</p>	<p>None needed. The Draft EIR’s Impact Haz-6 is avoided by the Revised Project’s site plan, which does not include the Shasta Avenue extension and at-grade rail crossing.</p> <p>Mitigation Measure Haz-6, Grade Separation: Any access to the Project site proposed as an extension of Shasta Avenue shall include plans for a grade-separated crossing of the rail tracks.</p> <p>a) Any proposal for a grade-separated crossing of the rail tracks at Shasta Avenue shall be accompanied by detailed design plans, which shall be subject to subsequent or supplemental review by the City, as well as approval by the CPUC, prior to construction.</p> <p>b) Any plans submitted to the City of Petaluma for such a grade-separated crossing must be accompanied by a Fire Protection Engineer Report, per the requirements of the City of Petaluma Fire Department.</p>	<p><u>Less than Significant</u> <i>Significant and Unavoidable</i></p>
<p>Haz-7: The Revised Project provides adequate emergency access to the future residential development site.</p>	<p>None needed. However, based on the recommendations of the City of Petaluma Fire Marshal, the following Recommendation is added to this EIR.</p> <p>Recommendation Haz-7, EVA Design: To ensure that the Bernice Court EVA is continuously available for emergency use, the EVA connection at Bernice Court shall include design measures including, but not limited to bollards, red curb or red pavement striping, no-parking signage, etc., intended to prohibit parking and other obstructions at this EVA access. Final EVA design measures shall be subject to review and approval by the Fire Marshal.</p>	<p>Less than Significant</p>
<p><u>Hydrology and Water Quality</u></p>		
<p>Hydro-1: During construction, the Revised Project could alter existing drainage patterns of the site in a manner that could result in substantial erosion or siltation, and provide substantial additional sources of polluted runoff.</p>	<p>Mitigation Measure Hydro-1, SWPPP Requirements: Design requirements and implementation measures for minimizing Project-generated erosion and for controlling fuel/hazardous material spills shall be set forth in the applicant's SWPPP, in accordance with State and RWQCB design standards. It is recommended that the SWPPP, at a minimum, include the following or similar provisions:</p> <ul style="list-style-type: none"> a) Leave existing vegetated areas undisturbed until construction of improvements on each portion of the development site is ready to begin; b) Immediately re-vegetate or otherwise protect all disturbed areas from both wind and water erosion upon the completion of grading; c) Collect storm water runoff into stable drainage channels, from small drainage basins, to prevent the buildup of large, potentially erosive storm water flows; d) Direct runoff away from all areas disturbed by construction; 	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<ul style="list-style-type: none"> e) Use sediment ponds or siltation basins to trap eroded soils before runoff is discharged into onsite or off-site drainage culverts and channels; f) Install straw rolls, straw bales or other approved materials below all disturbed areas adjacent to the Petaluma River and surrounding all wetland areas to be retained, to prevent eroded soils from entering the river channel. Maintain these facilities until all disturbed upslope areas are fully stabilized, in the opinion of the City Engineer; g) To the extent possible, schedule major site development work involving excavation and earthmoving for construction during the dry season; h) Develop and implement a program for the handling, storage, use and disposal of fuels and hazardous materials. The program should also include a contingency plan covering accidental hazardous material spills; i) BMPs shall be used for preventing the discharge or other construction-related NPDES pollutants beside sediment (i.e. paint, concrete, etc.) to downstream waters. j) Avoid cleaning, fueling, or maintaining vehicles on-site, except in an area designated to contain and treat runoff; and k) After construction is completed, inspect all drainage facilities immediately downstream of the grading site for accumulated sediment, and clear these facilities of debris and sediment as necessary. 	<p>Mitigation Measure Hydro-2A, SWCP Implementation: The Project shall design, construct and implement appropriate post-construction stormwater treatment measures to reduce water quality and hydromodification impacts to downstream reaches, as required by the current post-construction control requirements of the Small MS4 General Permit. Upon completion of the final project design, the applicant shall provide documentation of stormwater management measures that show compliance with the Small MS4 General Permit.</p> <ul style="list-style-type: none"> a) The report shall delineate individual drainage management areas (DMAs) within the Project site, and provide analysis to show compliance with the volumetric or flow-based treatment criteria as described in the Small MS4 General Permit. b) The Projects SWCP must provide the capacity to either infiltrate or evapotranspire all runoff generated by the 85th percentile storm event. c) Treatment measures must be provided for runoff that cannot be diverted to the site's storm water system, using specified Best Management Practices able to remove or otherwise neutralize identified pollutants. d) Water quality improvements shall not be placed so low in the floodplain that they are inundated by a 2-year storm. 	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>Hydro-3: The Revised Project would not place any new housing or create any new habitable space on the first floor of a new building that is located within a</p>	<p>None needed.</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
regulated floodplain (i.e., within a 100-year flood hazard area as defined on applicable FEMA Flood Insurance Rate Maps).	None needed.	Less than Significant
Hydro-4: The Revised Project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site, nor would it create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.	None needed.	Less than Significant
Hydro-5: The Revised Project’s proposed riverbank terrace grading would not substantially alter the course of the Petaluma River in a manner that could cause increased risk or severity of on-site or off-site flooding.	None needed.	Less than Significant
Hydro-6: The Revised Project will not draw upon or otherwise reduce groundwater resources.	None needed.	Less than Significant
Hydro-7: The Revised Project site is not located in an area that would expose persons to inundation by seiche, tsunami or mudflow. The Project site is nearly level and is not in proximity to any large lake or the ocean.	None needed.	Less than Significant
Hydro-8: Sea Level Rise: Future structures at the Revised Project site would not be subject to hazards associated with increased flooding of the Petaluma River due to sea level rise.	None needed.	Less than Significant
Land Use		
LU-1: Development of the Revised Project would result in the filling of areas identified as “wetlands” within the River Oriented Development Zone (RODZ) in the Petaluma River Access and Enhancement Plan, and would result in the removal of mature oak trees at the site. This would be in conflict with objectives, policies and programs identified in the Petaluma River Access and Enhancement Plan.	The following Mitigation Measures for the Project set forth in throughout this DEIR, primarily in Chapter 6: Biology, would mitigate impacts to biological resources and would serve to minimize conflicts with objectives, policies and programs of the Petaluma River Access and Enhancement Plan: Mitigation Measure Bio-4: Compensation for Seasonal Wetlands Fill Mitigation Measure Bio-5A: Riparian Preservation Zone Mitigation Measure Bio-5B: Riparian Tree Preservation (as amended)	Less than Significant

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	Mitigation Measure Bio-5C: Habitat Mitigation and Monitoring Plan Mitigation Measure Bio-6: Terraced Grading Erosion Control/Stormwater Pollution Prevention Plan Mitigation Bio-9: Incorporation of Native Plants in Landscaping Plans Mitigation Bio-10A: Limitations on Improvements within the Petaluma River Plan Corridor (also listed as Mitigation Measure Visual-2) Mitigation Bio-10B: RODZ review at SPAR Mitigation Measure Bio-11A: Ensure Preservation of Existing Trees (as amended) Mitigation Measure Bio-11B: Protected Tree Replacements Mitigation Measure Bio-11C: Tree Protection Plan	
Noise		
<p>The Revised Project would not generate noise levels in excess of applicable standards.</p> <p>The Revised Project could expose new residents to reasonably foreseeable future train noise levels in excess of the standard of 65 dBA CNEL for multi-family residential uses as established pursuant to the Petaluma General Plan 2025, to noise levels that might exceed the 60 dBA Ldn threshold established by the FTA for outdoor use, and/or to the noise levels that may exceed the indoor noise standard of 45 dB Ldn s established in the California Noise Insulation Standards found in CCR Title 24. These effects of existing and/or future ambient noise on the Project are not significant impacts caused by the Project.</p>	<p>None Needed. However, to avoid inconsistencies with City General Plan policies for land use compatibility with community noise environments, to reduce the exposure of primary outdoor use areas to below FTA regulatory guidance levels and to achieve noise conditions inside buildings at levels consistent with the California Noise Insulation Standards found in CCR Title 24, the following recommendations are provided:</p> <p>Recommendation Noise 1A, Ensure “Conditionally Acceptable” Noise Levels (as amended): No residential structure should be located closer than the calculated 65 dB CNEL contour. Based on existing rail noise levels, the 65-dBA CNEL noise contour is estimated to occur at approximately 30 feet from the center of the near set of railroad tracks. Based on potential future conditions (assuming increased freight rail traffic), the calculated 65 dB CNEL contour is estimated to be at 54 feet from the center of the near set of railroad tracks. The final design of the Project, to be reviewed at SPAR, should maintain a 54-foot setback from the center of the near set of railroad tracks.</p> <p>Recommendation Noise-1B, Noise Insulation (as amended): Prior to approval of building permits, a qualified acoustical consultant shall review final designs for floor plans and exterior elevations for construction of all residential buildings within the Project site. The design level acoustical report shall provide specific noise control treatment to achieve interior noise levels of 45 dBA or lower. The acoustical consultant shall identify and include on the plans and specifications for the Project, those specific noise insulation treatments (i.e., sound rated windows and doors, sound-rated wall construction, acoustical caulking, protected ventilation openings, stucco siding, thicker walls, bedroom orientation, etc.) that are to be applied.</p>	No Impact

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>The Revised Project would not generate groundborne vibration levels in excess of established thresholds.</p> <p>The Revised Project could expose new residents to reasonably foreseeable vibration levels in excess of limits established by the FTA and FRA for subjective human reactions to ground-borne vibrations. The effects of existing and/or future train-related vibration levels on the Project are not significant impacts caused by the Project.</p>	<p>Recommendation Noise 1C, Ensure Normally Acceptable Outdoor Noise Exposure (as amended): No primary outdoor use area (i.e., the swimming pool and courtyard or active play areas), should be located closer than the calculated 60 dB CNEL contour. Based on existing rail noise levels, the 60-dBA CNEL noise contour is estimated to occur at approximately 60 feet from the center of the near set of railroad tracks. Based on potential future conditions (assuming increased freight rail traffic), the calculated 60 dB Ldn contour is approximately 109 feet from the tracks. The final design of the Project, to be reviewed at SPAR, shall not locate any primary outdoor use areas (i.e., the swimming pool and courtyard or active play areas) closer than 109 feet from the center of the near set of railroad tracks. Alternatively, the Revised Project’s final design should incorporate noise attenuation into the design of any primary outdoor use areas closer than 109 feet that may include a fence or wall measuring at least 6 feet high and subject to SPAR approval, or placing primary outdoor use areas on the opposite side of a residential structure from the rail line.</p> <p>None needed. However, to avoid inconsistencies with FTA and FRA regulatory guidance regarding exposure to groundborne vibrations near transit or rail facilities, the following recommendation are provided:</p> <p>Recommendation Noise 2, Avoidance/Vibration Attenuation Measures (as amended): The Project should incorporate the following vibration avoidance or reduction strategies as part of its final design and/or construction.</p> <ol style="list-style-type: none"> a) The Revised Project’s proposed 54-foot residential set back from the centerline of the nearest set of rails more than adequately meets the FTA 75 VdB criteria for the “occasional” SMART train events that now occur and that is expected to occur in the future (i.e., between 30 and 70 SMART trains per day), and should be retained. b) The Revised Project’s proposed 54-foot residential set back from the centerline of the rails is also adequate to meet the FTA 80 VdB criteria for the “infrequent” heavy freight rail traffic that now occurs and that is expected to occur in the future. This 54-foot setback also accommodates an additional “penalty” threshold (down to the “occasional event” criteria of 75 VdB) to address the potential for longer duration and/or nighttime vibration events, and should be retained. c) To address an even more conservative vibration criterion as was applied in the NCRA Russian River Freight EIR, the City of Petaluma could consider an additional “penalty” threshold to meet the “frequent event” criteria of 72 VdB, which occurs at approximately 100 feet from the rail centerline. To meet this more stringent criterion, structural design measures could be incorporated into the design and construction of residential buildings located closer than 100 feet from the tracks, as necessary to reduce groundborne vibration to below the 72 VdB criteria. Special 	No Impact

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>Noise-3: The Revised Project would not expose existing or new residents to reasonably foreseeable future train horn noise levels above levels existing levels without the Project.</p>	<p>building methods can be incorporated to reduce groundborne vibration from being transmitted into project structures.</p> <p>None needed. The Draft EIR’s Impact Noise-3 is avoided by the Revised Project’s site plan, which does not include the Shasta Avenue extension and at-grade rail crossing.</p> <p>Mitigation Measure Noise-3, Quiet Zone: The Project applicant shall be responsible for obtaining a “Quiet Zone” designation for the Shasta Avenue crossings. A Quiet Zone application must be a joint application between the local jurisdiction and the rail operator, and must include supplementary safety measures to ensure that safety is not compromised by eliminating the sounding of the train horns.</p> <p>a) FRA Interim Train Horn Rule allows automated train horns to be used in place of locomotive horns at individual or multiple at-grade crossings, including those within quiet zones. The automated or “wayside” horn is a stationary horn located at a grade crossing and designed to provide audible warning to oncoming motorists of an approaching train. The wayside horn is considered a one for one substitute for the train horn. The crossing must also be equipped with flashing lights and gates.</p> <p>b) The Project applicant shall be financially responsible for all costs associated with obtaining the Quiet Zone designation and implementation of the supplementary safety measures, including installation of crossing controls that meet FRA requirements.</p>	<p>Less than Significant Significant and Unavoidable</p>
<p>Noise-4: Construction of the Revised Project would result in temporary or periodic noise impacts, but construction noise is not anticipated to exceed the ambient noise environment by 5 dBA Leq for a period greater than one year. Not all construction activity associated with the Revised Project would occur in immediate proximity to adjacent neighbors, and construction that does occur adjacent to existing neighbors is unlikely to individually last for more than 1 year.</p>	<p>Mitigation Measure Noise-4A, Construction Hours: Due to the proximity of sensitive receptors (residences) to the development areas, construction activities shall be required to comply with following, and shall be noted accordingly on construction contracts:</p> <p>a) Construction activities for all phases of construction, including servicing of construction equipment shall only be permitted during the hours of 7:30 a.m. and 6:00 p.m. Monday through Friday, and between 9:00 a.m. to 5:00 p.m. on Saturdays. However, when construction is occurring within 100’ of new occupied residential units, it shall not begin until 8 a.m. during weekdays.</p> <p>b) Construction is prohibited on Sundays and on all holidays recognized by the City of Petaluma.</p> <p>c) Delivery of materials or equipment to the site and truck traffic coming to and from the site is restricted to the same construction hours specified above.</p> <p>Mitigation Measure Noise-4B, Construction Engine Controls: The Project Applicant shall implement the following engine controls to minimize disturbance to adjacent residential uses during Project construction:</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<ul style="list-style-type: none"> a) Construction equipment shall utilize the best available noise control techniques (including mufflers, intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) in order to minimize construction noise impacts. These controls shall be used as necessary to reduce heavy equipment noise to 75 to 80 dBA (Leq) at 50 feet to minimize noise levels at the closest residential receptors. b) If impact equipment such as jackhammers, pavement breakers and rock drills is used during construction, hydraulically or electric-powered equipment shall be used to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. c) Where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used. External jackets on the tools themselves shall also be used, where feasible. 	
	<p>Mitigation Measure Noise-4C, Stationary Equipment and Staging: Locate stationary noise generating equipment that generates noise levels in excess of 65 dBA Leq as far as possible from sensitive receptors.</p>	
	<ul style="list-style-type: none"> a) If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains, or other similar devices. b) The construction contractor shall not stage equipment within 200 feet of the existing residential land uses to the west and north of the project site. c) Heavy equipment, such as paving and grading equipment, shall be stored on-site whenever possible to minimize the need for extra heavy truck trips on local streets. 	
	<p>Mitigation Measure Noise-4D, Miscellaneous Construction Noise: The contractor shall minimize use of vehicle backup alarms and other miscellaneous construction noise.</p>	
	<ul style="list-style-type: none"> a) A common approach to minimizing the use of backup alarms is to design the construction site with a circular flow pattern that minimizes backing up of trucks and other heavy equipment. b) Another approach to reducing the intrusion of backup alarms is to require all equipment on the site to be equipped with ambient sensitive alarms. With this type of alarm, the alarm sound is automatically adjusted based on the ambient noise. c) Construction worker’s radios shall be controlled to be inaudible beyond the limits of the project site boundaries. 	
	<p>Mitigation Measure Noise-4E, Noise Barriers (as amended): The construction contractor shall erect temporary walls, sound curtains or other similar devices along the southerly property line adjacent to the existing Oak Creek Apartments and neighbors along</p>	

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<p>Bernice Court, Graylawn Avenue and Jesse Avenue to shield these existing sensitive receptors from construction noise. To the extent feasible, the construction contractor shall prioritize construction of buildings nearest to Graylawn/Bernice Court during the earlier phases of construction, such that new buildings can serve as a noise barrier to dampen construction noise as the site develops.</p> <p>Mitigation Measure Noise-4F, Noise Disturbance Coordinator: The Project applicant / construction contractor shall designate a city-approved Noise Disturbance Coordinator, designated to respond to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. The construction schedule and telephone number for the Noise Disturbance Coordinator shall be conspicuously posted at the Project construction site.</p>	
<p>Noise-5: Noise generated by use and occupation of the Revised Project by new residences is not expected to significantly increase or alter the existing noise environment.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p>Noise-6: Traffic generated by the Revised Project would not result in a substantial, permanent significant increase in ambient noise levels in the vicinity. Traffic generated by the Project would not result in a permanent increase in ambient noise levels of 4 dBA or more, such that traffic noise would exceed “normally acceptable” noise levels at nearby land uses.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p><u>Traffic and Circulation</u></p>		
<p>Without the Shasta Extension, traffic generated by the Revised Project will only be able to use Graylawn Avenue for access to the site. Although the addition of all traffic generated by the Revised Project to Graylawn Avenue would not result in a significant CEQA impact, it would add to existing traffic levels on Graylawn and exceed the City’s design standards for this road.</p>	<p>Although not required as CEQA mitigation, the following traffic engineering recommendations are provided as information relevant to options for addressing the Revised Project’s potential conflicts with the City’s 2,000 ADT design standard for Graylawn Avenue as a residential road:</p> <p>Recommendation Transp-A, Reduce Revised Project Size to Fit Graylawn Capacity: If the Revised Project were to be reduced in size to approximately 108 residential units, it would produce approximately 858 daily trips, 52 AM peak hour trips, and 64 PM peak hour trips. This number of additional trips could be accommodated, in addition to the</p>	<p>Not a CEQA Impact</p>

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<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<p>existing 1,142 daily trips currently on this roadway, such that the ADT would not exceed the City of Petaluma Department of Engineering’s Street Standard Design.</p> <p>OR -</p> <p>Recommendation Transp-B, Introduce Traffic Calming and Enhance Livability along Graylawn Avenue: The Revised Project shall implement a Traffic Calming Plan, which may include bulb outs, street tree planting, pavement marking and other roadway livability improvements and traffic calming features to minimize conflicts with “livability” standards for local streets that exceed the 2,000 ADT design standard for this roadway. Prior to SPAR review at the Planning Commission, the applicant shall coordinate with City Public Works staff on the preferred Traffic Calming approach and design (anticipated to be similar in nature to Concept 3 as shown in the conceptual Traffic Calming Plan of Appendix A). The preferred Traffic Calming Plan shall be shown on the plan set for SPAR review. The Public Improvement Plan set for the Revised Project shall include the finalized Traffic Calming Plan.</p>	
<p>Transp-1: The addition of traffic generated by the Revised Project to existing traffic conditions would not cause a level of service (LOS) standard established by the City of Petaluma to be exceeded at any study area intersections.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p>Transp-2: The addition of traffic generated by the Revised Project to the Pipeline scenario (without the Project) would not cause a cumulative level of service standard established by the City of Petaluma to be exceeded at any study area intersection.</p>	<p>None needed</p>	<p>Less than Significant</p>
<p>Transp-3: The addition of traffic generated by the Revised Project to the Cumulative scenario (without the Project) would not result in a cumulatively significant contribution of traffic at any study area intersections.</p>	<p>None needed. The Revised Project no longer proposes the Shasta Avenue Extension and will not directly contribute substantial additional, cumulatively significant traffic to the westbound approach to the Petaluma Boulevard/Shasta Avenue intersection. The Revised Project will be subject to the City’s Traffic Impact Fees, which are collected to fund ongoing maintenance and planned improvements citywide, including the Rainier Crosstown Connector and associated improvements.</p> <p>Mitigation Measure Transp 3, Petaluma Boulevard/Shasta Avenue: As presented in the Rainier Cross Town Connector Draft EIR (prepared by URS Corporation, July 2014), restriping the existing westbound approach to Petaluma Boulevard North/Sycamore Lane (Shasta Avenue) to provide an exclusive left turn lane and a shared left/through/right turn lane plus an exclusive northbound right turn lane. These improvements would improve the intersection to LOS C in the PM peak hour under</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>Transp-4: Traffic generated by the Revised Project would not cause a freeway segment operating at LOS E or better to deteriorate to LOS F, and would not cause an increase in traffic on a freeway segment already exceeding LOS E by more than one percent of the freeway segment’s design capacity.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p>Transp-5: Traffic generated by the Revised Project, when added to the Pipeline scenario (without the Project) would not cause a cumulative level of service (LOS) standard established for the freeway system to be exceeded.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p>Transp-6: Traffic generated by the Revised Project, when added to the Cumulative scenario without the Project, would not cause a cumulative level of service (LOS) standard established for the freeway system to be exceeded.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p>Transp-7: The Revised Project would not substantially increase roadway hazards and hazards for emergency vehicles accessing the Project site, as it does not propose an at-grade rail crossing.</p>	<p>None needed. Impact Transp-7 is avoided by the Revised Project’s site plan, which does not include the Shasta Avenue extension and at-grade rail crossing. However, based on the recommendations of the City of Petaluma Fire Marshal, the following Recommendation is added to this EIR.</p> <p>Recommendation Transp-7, EVA Design: To ensure that the Bernice Court EVA is continuously available for emergency use, the EVA connection at Bernice Court shall include design measures including, but not limited to bollards, red curb or red</p>	<p>Less than Significant <i>Significant and Unavoidable</i></p>

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<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>pavement striping, no-parking signage, etc., intended to prohibit parking and other obstructions at this EVA access. Final EVA design measures shall be subject to review and approval by the Fire Marshal.</p>	<p>Mitigation Measure Transp-7A: Grade Separated Vehicle Bridge. Acceptable vehicular and emergency access to the Project site could be provided via a grade separated bridge crossing over the rail tracks at the Shasta Extension to Graylawn. CPUC approval of such a vehicle bridge design is required prior to construction.</p>	<p>Mitigation Measure Transp-7B: At-Grade Rail Crossing Safety Improvements. To improve vehicle and emergency vehicle safety at the proposed at grade crossing at the Shasta Extension to Graylawn, the proposed crossing design shall be reviewed by a diagnostic team and undergo a detailed Engineering Study to identify the most effective and appropriate warning devices applicable for this crossing. If approved by the CPUC, the Project shall then implement all recommended improvements. Costs can vary widely depending on site conditions, improvements needed, and existing infrastructure.</p> <p>a) Federal law requires that, at a minimum, signs shall be posted at all rail crossings. The railroad cross buck sign and other supplemental signs, potentially including advance warning signs, a “No Signal” or “Signal Ahead” sign, an advisory speed plate (if sight or geometric conditions require a speed lower than the posted speed limit), and use of YIELD or STOP signs are all types of signage that shall be considered.</p> <p>b) Pavement markings shall be used to supplement the warning messages presented by the crossing signs and other supplemental signs. Pavement markings in advance of roadway/rail grade crossings shall consist of an X, the letters RR, a NO PASSING marking as well as certain transverse lines.</p> <p>c) Additional active traffic control devices should also be considered. Active control devices are those that give advance notice of the approach of a train, activated by the passage of a train over a detection circuit in the track. Active traffic control devices are supplemented with the same signs and pavement markings used for passive control, but also include:</p> <p>i. flashing light signals, including cantilevered flashing lights and LED flashing lights;</p> <p>ii. automatic gates, including four quadrant gate systems in which the gates extend across both the approach and the departure side of roadway lanes to inhibit all traffic movements over the crossing; using roadway channelization with gates to prevent drivers from crossing the centerline pavement marking and driving around the gate; and barrier gate (movable automatic gates designed to close an approaching roadway temporarily);</p>

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<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>iii. horns and bells, including a warning bell used to supplement other active traffic control devices; and wayside horn systems, which consist of a horn or series of horns located at the roadway rail grade crossing and directed at oncoming motorists; and</p> <p>iv. other active devices such as active advance warning signs that provide motorists with advance warning that a train is approaching the crossing; active turn restriction signs that pre-empt nearby intersection traffic control signals at the approach of a train; and the use of pre-signals which stop traffic before it crosses the rail tracks and prevents vehicles from queuing across the grade crossing</p>	<p>None needed. Impact Transp-8 is avoided by the Revised Project’s site plan, which does not include the Shasta Avenue extension and at-grade rail crossing.</p> <p>Mitigation Measure Transp-8, Shasta Avenue Street Improvements: If the Project’s proposed at grade rail crossing at Shasta Avenue is approved by the CPUC, the Shasta Extension to Graylawn shall include a continuation of street improvements to the existing off site road section of Shasta Avenue, from west of the rail tracks to the intersection at Petaluma Boulevard. The re-design shall be subject to review and approval at time of Improvement Plan review. Petaluma City Staff will coordinate review of all aspects of the improvements with the appropriate review committees. Pursuant to General Plan recommendations for this roadway, the Project’s off site improvements shall re design Shasta Avenue to include:</p> <p>a) A roadway street design and construction standard that meets the City of Petaluma’s standards as a collector road</p> <p>b) Improvements to the multi-modal function of Petaluma Boulevard and potentially Shasta Avenue, specifically at the intersection at Shasta/Petaluma Boulevard</p> <p>c) The introduction of pedestrian and transit amenities such as wider sidewalks, special paving treatments, bus priority treatments, landscaped medians and street trees within parking lanes</p>	<p>Less than Significant</p>
<p>Transp-9: The Revised Project does not propose an at-grade rail crossing that would otherwise result in unsafe pedestrian and/or bicycle traffic flow patterns that would be in conflict with the Petaluma General Plan 2025 Mobility Report goals and policies.</p>	<p>Mitigation Measures Transp-9A and -9B are not needed. The original Projects’ inconsistency with pedestrian and bicycle safety policies pursuant to Impact Transp-9 is avoided by the Revised Project’s site plan, which does not include the Shasta Avenue extension and at-grade rail crossing.</p> <p>Mitigation Measure Transp-9A: Grade Separated Bridge. Acceptable pedestrian and bicycle access to the Project site could potentially be provided via a grade-separated bridge crossing over the rail tracks at the Shasta Extension to Graylawn (similar to</p>	<p>Less than Significant <i>Significant and Unavoidable</i></p>

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<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<p>Mitigation Measure Transp 8A). CPUC approval of such a bridge design is required prior to construction.</p>	
	<p>Mitigation Measure Transp 9B: At-Grade Rail Crossing Safety Measures. To improve pedestrian and bicycle safety at the proposed Shasta Extension to Graylawn at grade crossing, the Project Sponsor shall fund a detailed Engineering Study of the proposed crossing, subject to review and approval of the City Engineer, to identify the most effective and appropriate warning devices applicable for this crossing. If the at grade crossing is ultimately approved by the CPUC and the City of Petaluma, the Project shall then implement the recommended improvements. Costs can vary widely depending on site conditions, improvements needed, and existing infrastructure.</p> <p>a) The pedestrian/bicycle crossings should be designed to minimize the time required for pedestrians to cross, by designing the crossings so that the pedestrian paths of travel intersect the railroad track at a 90-degree angle.</p> <p>b) A number of passive pedestrian safety improvements should be considered for this crossing, and if approved, implemented. These passive measures may include, but are not limited to:</p> <ul style="list-style-type: none"> i. Fencing and channelization; ii. swing gates and pedestrian barriers; iii. pavement markings, texturing and refuge areas; iv. fixed message signs; v. raising the approaches to the track and the area between the tracks to the level of the top of the rail, creating flat level areas to cross; and vi. minimizing problems with the flangeway gap width with approved flangeway filler <p>c) A number of active pedestrian safety improvements should also be considered for this crossing, and if approved, implemented. These active measures may include, but are not limited to:</p> <ul style="list-style-type: none"> i. Flashers and audible active warning devices; ii. automated pedestrian gates and pedestrian signals; iii. variable message signs; and iv. use of railroad crossing "cross buck" signs <p>d) A combination of audible and visual devices should be used to serve the accessibility needs of hearing impaired and visually impaired pedestrians.</p> <p>e) The implementation of pedestrian safety improvements should be accompanied by education to all Project area residents and neighbors through public service</p>	

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
	<p>announcements, educational initiatives, school presentations, posting of all rail safety laws, etc., all sponsored by the Project applicant.</p> <p>The following Mitigation Measure from the Draft EIR, recommended to improve pedestrian and bicycle safety for at the existing Payran Street at-grade rail crossing, has been implemented by SMART as part of their Payran Pathway project, and is no longer necessary for the project:</p> <p>Mitigation Measure Transp-9C: At-Grade Rail Crossing Safety Measures at Payran Avenue. Prior to Improvement Plan approval, the Project Sponsor shall fund a detailed Engineering Study of the existing crossing to identify the most effective and appropriate warning devices applicable for this crossing. This study shall be completed under direction of the City of Petaluma and in coordination with SMART to implement the recommended improvements at this location, and to determine fair share payments towards any additional improvements.</p>	
<p>Transp-10: The Revised Project would not result in a significant unanticipated increase in transit patronage beyond the system’s current capacity, but potentially could result in development that is not appropriately accessible to transit riders (defined as within one-quarter mile of a transit stop).</p>	<p>None needed. Mitigation Measures 9A through 9-C (above), recommended to improve access to transit have either already been implemented by SMART or are no longer necessary for the Revised Project:</p>	<p>Less than Significant</p>
<p>Transp-11: The on-site circulation plan provides adequate design to accommodate emergency vehicles accessing and circulating within the Revised Project site.</p>	<p>None needed.</p>	<p>Less than Significant</p>
<p>Transp-12: The Revised Project would cause temporary disruption to the transportation network due to construction.</p>	<p>Mitigation Measure Transp-12, Prepare Construction Management Plan: A construction management plan shall be prepared for review and approval by the City of Petaluma Public Works Department. The plan shall include at least the following items:</p> <ul style="list-style-type: none"> a) Development of a construction truck route that would appear on all construction plans to limit truck and auto traffic on nearby streets. b) Comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures if required, sidewalk closure procedures if required, cones for drivers, and designated construction access routes. c) Evaluation of the need to provide flaggers or temporary traffic control at key intersections along the truck route(s) 	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
<p>d) Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur</p> <p>e) Location of construction staging areas for materials, equipment and vehicles if there is insufficient staging area within the work zone of the proposed project.</p> <p>f) Identification of truck routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; provision for monitoring surface streets used for truck movement so that any damage and debris attributable to the proposed project’s construction trucks can be identified and corrected by the proposed project applicant.</p> <p>g) A process for responding to and tracking complaints pertaining to construction activity, including identification of an on-site complaint manager</p> <p>h) Documentation of road pavement conditions for all routes that would be used by construction vehicles both before and after proposed project construction. Roads found to have been damaged by construction vehicles shall be repaired to the level at which they existed prior to construction of the proposed project.</p>		
<u>Utilities</u>		
<p>Utilities-1: There are sufficient water supplies available to serve the Revised Project from existing entitlements and resources, and new or expanded entitlements are not needed. The Project will add to the cumulative demand for overall water supplies, and contribute to projected dry year water shortages. Therefore, the Revised Project will be required, pursuant to existing regulations, to include water conservation strategies that will serve to reduce overall water demands to levels projected to be sustainable on a cumulative basis, and will be subject to those water shortage contingency plans that are now in place, and as may be implemented in the future.</p>	<p>None needed. With required implementation of water efficiency standards and payment of water impact fees, the Project will offset its contribution to cumulative water demands to a less than significant level.</p>	<p>Less than Significant</p>
<p>Utilities-2: The Revised Project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, would not necessitate construction of new or expanded wastewater treatment facilities or result in a determination by the wastewater treatment provider</p>	<p>None needed.</p>	<p>Less than Significant</p>

Table 1-1: Summary of Revised Project Impacts and Mitigation Measures

<u>Potentially Significant Impacts</u>	<u>Mitigation Measures</u>	<u>Resulting Level of Significance</u>
that it has inadequate capacity to serve the Revised Project’s projected wastewater treatment demand in addition to existing commitments.	None needed.	Less than Significant
Utilities-3: The Revised Project would not require or result in the construction of new storm water drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects.	None needed.	Less than Significant
Utilities-4: The Revised Project would not result in the construction of new water, sewer or stormwater drainage facilities or the expansion of such facilities that would cause significant environmental effects.	None needed.	Less than Significant
Utilities-5: The Revised Project will be served by a landfill with sufficient permitted capacity to accommodate the Project’s solid waste disposal needs.	None needed.	Less than Significant
<u>Energy</u>		
Energy-1: Construction and operation of the Revised Project would increase the consumption of energy, but would not result in the wasteful, inefficient and unnecessary consumption of energy.	None needed.	Less than Significant
Energy-2: The Revised Project would not result in the excessive consumption of energy resources that could not be accommodated within the long-term electricity supply and distribution system or the long-term natural gas supply and distribution system.	None needed	Less than Significant
Energy-3: Operation of the Revised Project would not significantly increase peak and base-period electricity demand.	None needed	Less than Significant

Revised Project Description

Original Project

In March of 2018, the City released a Draft Environmental Impact Report (Draft EIR) that evaluated potential environmental impacts associated with development of a then-proposed Sid Commons Apartments Project (original Project). The original Project site (site) is located in the City of Petaluma at the northern terminus of Graylawn Avenue, northwest of the existing Oak Creek Apartments. The Project applicant is J. Cyril Johnson Investment Corporation. The Project applicant was seeking to rezone the property and to amend prior Planned Unit District (PUD) restrictions to allow for development of a 278-unit apartment complex, a one-story community clubhouse and a swimming pool, all located on the approximately 15.45-acre net developable portion of the Project site. The Project as analyzed in the Draft EIR included a conceptual site plan for the original Project with 278 apartment units provided in multiple three-story structures. The arrangement of the site plan was anticipated to be refined during a subsequent Site Plan and Architectural Review process, but this conceptual site plan formed the basis of analysis of the original Project in the March 2018 Draft EIR.

As indicated on page 3-29 of the Draft EIR, “City staff [had] several concerns about the feasibility of the Project as proposed, and communicated those concerns to the applicant team during the environmental review process. More specifically, staff [had] concerns about the validity of certain assumptions underlying the Project’s design, and as a result, [had] concerns about the Project’s overall feasibility.” Staff concerns related to the Original Project’s proposal for an at-grade crossing over the railroad and inconsistencies with the Petaluma River Access and Enhancement Plan, as detailed below. Despite these concerns, the City of Petaluma agreed to continue processing the Project and to conduct the environmental review as contained in the Draft EIR.

Significant Conclusions from the Draft EIR

Shasta Avenue Rail Crossing

The original Project had proposed accesses to the site via existing Graylawn Avenue, with an EVA at Bernice Court, and by the creation of an extension of Shasta Avenue from its current terminus on the west side of the SMART railroad tracks near the intersection of North Petaluma Boulevard. As then proposed, the Shasta Avenue extension was an at-grade crossing over the rail tracks, extending the roadway through to the Project site to a new connection at Graylawn Avenue. The proposed at-grade railroad crossing at the Shasta Avenue Extension would require approval by the California Public Utilities Commission (CPUC). The CPUC had already indicated in their 2007 letter responding to the City’s NOP for the Draft EIR that CPUC staff would oppose an at-grade crossing, and reiterated that position in a December 4, 2015 letter to the City of Petaluma.

The Draft EIR recognized the inherent conflicts between the CPUC staff position and the proposed at-grade rail crossing. The Draft EIR concluded that the proposed at-grade crossing would result in increased hazards including traffic, bicycle and pedestrian crossings at a potentially unsafe location. It also concluded that the proposed at-grade crossing would substantially increase roadway hazards and hazards for emergency vehicles accessing the Project site and would create an inconsistency with Petaluma’s adopted bicycle and pedestrian system plans, guidelines, policies and safety standards. The Draft EIR indicated that the original Project’s at-grade crossing would expose existing and new residents to reasonably foreseeable future noise

from wayside warning horns at the proposed Shasta crossing. Even with establishment of a Quiet Zone, noise from additional wayside horns at the Shasta crossing would adversely affect new and existing residences.

The Draft EIR recommended mitigation measures that included replacing the at-grade crossing with a grade-separated bridge. However, a decision to construct a bridge is not within the jurisdiction of the City of Petaluma alone and specifically requires CPUC approval. The applicant proposed no such bridge structure, and implementation of such a bridge could not be assured. As such, the Draft EIR considered each of these impacts to be significant and unavoidable effects of the original Project.

Graylawn Avenue Capacity

The Draft EIR identified Graylawn Avenue as a locally designated roadway. Pursuant to the City of Petaluma Department of Engineering's Street Design and Construction Standards & Specifications, local residential roadways are intended to carry up to a maximum average daily traffic (ADT) of 2,000 trips, serving up to 200 dwelling units. Traffic counts collected in November 2015 determined that the then-existing average daily two-way traffic (ADT) on Graylawn Avenue to be 954 vehicles. Under the original Project (the Shasta Extension and at-grade extension to Petaluma Boulevard North was presumed to be granted), and the Draft EIR concluded that approximately one-third of the original Project's traffic would use Graylawn Avenue. With the addition of the original Project's Graylawn trips, total traffic on Graylawn would increase to approximately 1,630 ADT,¹ and the original Project's vehicle trips could be accommodated within the 2,000 ADT standard. The Draft EIR did not identify the City's residential street standard as CEQA thresholds, but rather this standard provided a relative means of measuring the "livability" of local residential streets as related to increased traffic.

The Draft EIR also presented a different scenario, whereby all traffic generated by the original Project would only have primary ingress and egress via Graylawn Avenue. Under this scenario, the Draft EIR found that the original Project would generate an additional approximately 1,808 daily trips on Graylawn Avenue, resulting in 2,762 ADT (more trips than the 2,000 ADT residential roadway standard). The Draft EIR recognized that, for residents living along Graylawn Avenue, this increase in traffic would be a significantly noticeable increase of nearly three times as much traffic than was counted in 2015. However, the Draft EIR (page 14-70) concluded that, if all traffic generated by the original Project were to rely on Graylawn Avenue as the only means of ingress and access, this would not cause the intersection of Graylawn Avenue/Payran to operate at unacceptable LOS conditions. Side-street intersections along the Graylawn corridor would have lower traffic volumes than Graylawn Avenue/Payran, and the original Project would not have significantly increased vehicle delay at these locations either.

Conflict with the Petaluma River Access and Enhancement Plan

The Petaluma River Access and Enhancement Plan (River Plan) restricts new development from intruding into the Petaluma River Plan Corridor, which is comprised of a Preservation, Restoration and Buffer zone along the River. The Draft EIR determined that the original Project would have resulted in removal of several mature oak trees, encroachment of development within the River Corridor, and the filling of wetlands. These actions would have conflicted with the River Plan's policies for protection of the River Corridor.

The Draft EIR recommended mitigation measures to address these River Plan inconsistencies. These measures called for preservation of high quality riparian vegetation by restricting development in the High-Priority Riparian Preservation Zone (MM Bio-5A), precluding residential development from the River Plan's Corridor (MM Bio-10A), preserving and/or creating replacement wetlands, and better preserving protected trees, particularly those trees located within the River Plan Corridor (MM Bio-11A). Implementation of these

¹ Presuming that approximately 1/3 of the original Project generated travel would utilize Graylawn Avenue and 2/3 would utilize the Shasta Avenue Extension and then the proposed at-grade crossing.

mitigation measures would necessitate a refinement to the conceptual site plan proposed under the original Project.

Revised Project

In response to these significant environmental conclusions and in response to public comments on the Draft EIR (including City Planning Commissioner's and City Council members' concerns raised during the Draft EIR public comment hearings) the Project applicant has proposed a revised conceptual site plan for the site (the Revised Project). A detailed description of the Revised Project follows.

Revised Project Site

The Revised Project site (site) comprises the same 19.24 gross acres of land as was included in the original Project. This includes 14.33 acres within the portion of Parcel Map #307 that are located on the west side of the River and identified as a "Remainder Parcel" (principally APN 019-010-009), together with a 4.39-acre parcel known as the Webb parcel (APN 019-010-006), plus the 0.52-acre Graylawn Avenue turnaround (APN 019-010-008). The site is located in the City of Petaluma at the northern terminus of Graylawn Avenue, northwest of the existing Oak Creek Apartments (see **Figure 2-1**).

Revised Project Site's Relationship to Floodway, Floodplain and River Setbacks

As analyzed in the Draft EIR, the site is subject to several regulatory and policy requirements pertaining to properties adjacent to the Petaluma River (see **Figure 2-2**).

Floodway

The Floodway Zone (or FW Zone) applies to approximately 2.02 acres of APN -009 within the portion of the site that fronts onto the Petaluma River. Like the original Project, the Revised Project does not propose any new inhabited structure within the Floodway Zone, but does propose grading for a floodway terrace within the Floodway.

Existing Flood Easement/200-Foot River Setback

There is an existing 400' wide hydraulic maintenance and public access easement recorded on Parcel Map #307 (which includes portions of the site) referred to as a Flood Easement. The centerline of the flood easement is generally east of the centerline of the Petaluma River. On site, the Floodway Zone lies entirely within this easement. Like the original Project, the Revised Project does not propose any structure within the Flood Easement. Also like the original Project, work proposed within the Flood Easement pursuant to the Revised Project is limited to flood terracing, habitat restoration, construction of a riverbank trail with access to the River's edge, and installation of an overlook. Each of these improvements is consistent with the hydraulic maintenance and public access description of the Flood Easement.

Petaluma General Plan Policy 8-P-30 establishes this same 200-foot setback from the centerline of the Petaluma River. Like the original Project, the Revised Project does not propose any residential development to occur within this 200-foot setback. The Revised Project proposes only river-related improvements within the River Setback.



Figure 2-1
Revised Project Site (same as original Project Site)



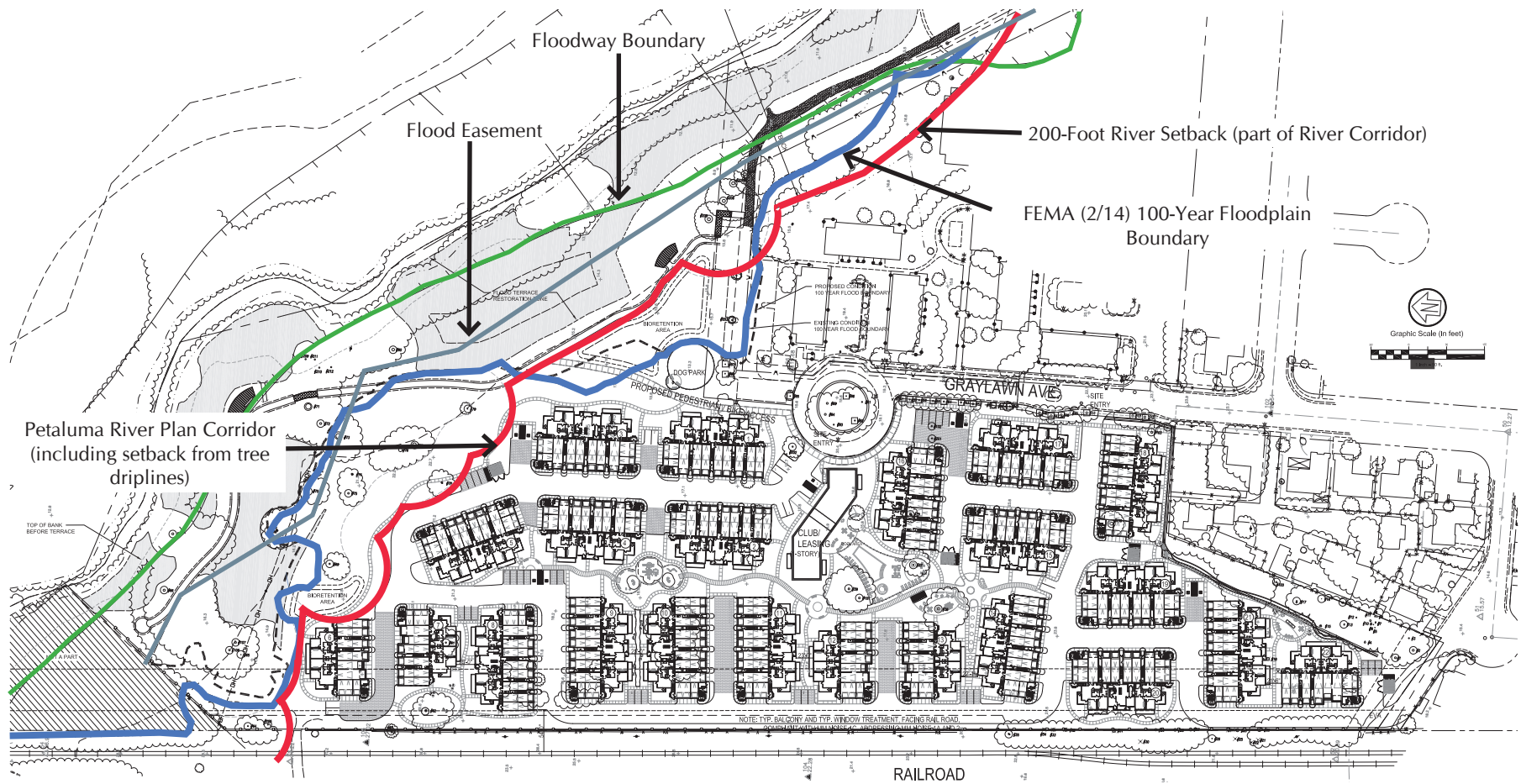


Figure 2-2
 Revised Project Site's Relationship to Floodway, Floodplain and River
 Setbacks



100-Year Floodplain

The National Flood Insurance Program uses FEMA's Flood Insurance Rate Maps (FIRMS) to identify locations of special flood hazard areas, including the 100-year flood zone. Pursuant to Petaluma General Plan Policy 8-P-37, no new inhabited structure or development shall be entitled within that 100-year flood zone boundary.² Like the original Project, the Revised Project does not propose any inhabited structure within the currently effective 100-year flood boundary as established per FEMA's FIRM maps dated February 2014.

Zero Net Fill

Pursuant to City General Plan Policy 8-P-33, the City implements a mandatory zero net fill policy for lands within the 100-year flood elevation on those properties upstream of the Payran weir. Chapter 6 Section 6.070 of the Petaluma Implementing Zoning Ordinance (IZO) implements this General Plan policy. Like the original Project, the Revised Project's site plan does not place any new structure or increase fill within the 100-year flood elevation (see further discussion regarding the proposed terraced grading plan, below).

Petaluma River Plan Corridor

The Petaluma General Plan includes a land use designation of River Plan Corridor (alternatively referred to as the River Corridor, or the PRC), which pertains to lands identified as needed to implement the 1996 Petaluma River Access and Enhancement Plan (or River Plan), including floodplain management projects. No new development is permitted within the River Corridor. Within the site, the River Corridor is comprised of three management zones - the Preservation Zone, the Restoration Zone and the Buffer Zone.

Unlike the original Project (which had encroached into the River Corridor), the Revised Project's development plan is pulled back from the Petaluma River banks such that, with the exception of a sidewalk and bio-retention basin, residential development does not encroach into the River Corridor Preservation Zone. This redesign of the Revised Project largely implements Mitigation Measure Bio 11A of the Draft EIR by removing all structures under the concept plan from the River Corridor Preservation Zone (see additional discussion in Chapter 3 of this FEIR under the analyses of the Revised Project's impacts related to Biology and Land Use).

Revised Project Unit Count

The Revised Project includes a conceptual site plan (see **Figure 2-3**) for a 205-unit apartment complex, with the apartment units located within separate two-story apartment buildings, and each apartment building consisting of either seven or 10 individual apartment units. Similar to the original Project, the site plan for the Revised Project also includes a 6,300 square-foot community clubhouse and an outdoor swimming pool. The 205 apartment units are comprised of 39 one-bedroom units and 166 two-bedroom units. The final arrangement of the site plan and architectural design will be refined during the subsequent Site Plan and Architectural Review (SPAR) process, but illustrations of the Revised Project's conceptual building designs, which are architecturally different as compared to the original Project, are included as **Figure 2-4**.

In response to comments expressed during the Draft EIR public comment period that the original Project was too large and generated too much traffic for the surrounding area, the applicant has reduced the amount of development proposed for the site. Whereas the original Project had proposed 278 units, the Revised Project now proposes a total development plan for 205 units, a reduction of 73 units (or more than a 25 percent reduction) as compared to the original Project.

² Potential exceptions may be provided if the flood depth is less than 1 foot, residential development is prohibited on the first floor, and any non-residential finished floors is at least two feet above the base 100-year flood elevation

Revised Project Plans

The Revised Project includes other substantial differences as compared to the original Project:

- The Revised Project introduces approximately 205 residential dwelling units contained within two-story “Big House” concept developments, whereas the original Project proposed 278 units contained within three-story traditional apartment buildings.
- The Revised Project proposes to provide 10% of the units at the affordable level, comprised of 5% at the low-income level and 5% at the median income level.
- The Revised Project has a more substantial setback from the River, such that it does not encroach into the River Corridor and does not remove any protected tree within the River Corridor area (both eliminating residential development from the River Corridor and revising the terrace design to preserve the two oaks originally proposed to be removed to accommodate the river terrace).
- The Revised Project no longer proposes to construct the Shasta Avenue extension or its at-grade rail crossing, and primary access into the site would only occur from Graylawn Avenue.
- The Revised Project has a more substantial (54-foot) setback from the rail corridor.
- The Revised Project includes an open-design fence along the edge of the rail corridor, and a small branch of the river trail leading to the River edge.
- The Revised Project also provides for substantially greater protection of existing trees than did the original Project.

Many other aspects of the Revised Project, such as utility infrastructure and terraced grading along the riverbank for flood control purposes, remain similar to the original Project, as more fully described below.



Figure 2-3
Revised Project Conceptual Site Plan







2 FRONT ELEVATION, BUILDING TYPE A
SCALE: 1/8" = 1'-0"



1 SIDE ELEVATION, BUILDING TYPE A
SCALE: 1/8" = 1'-0"
OPTION - 1



OPTION - 2



OPTION - 3

Figure 2-4
Revised Project's Proposed Building Types, Example Elevations



Site Access, Circulation and Parking

Primary access into the site would only occur from Graylawn Avenue. Graylawn Avenue would maintain the current 32-foot wide curb-to-curb dimension, and the existing landscaped turnaround would remain. Due to concerns about increased traffic levels, the applicant has voluntarily agreed to incorporate a Traffic Calming Plan into the Revised Project for this roadway and for the adjoining Jess Avenue (see **Appendix A**). Two driveway connections are proposed to connect the Project to Graylawn Avenue. Similar to the original Project, a secondary means of emergency access to the site is proposed via a public access easement at the existing approximately 32-foot wide frontage located at the end of Bernice Court. The Bernice Court connection would be used as an emergency vehicle access (EVA) only, and not as a through street. The Bernice Court EVA is intended to meet all fire apparatus, turning radius and turnaround requirements of the Petaluma Fire Code. The EVA design shall also meet additional recommendations of the City Fire Marshal to prohibit parking and other obstructions, and to ensure that the Bernice Court EVA is continuously available for emergency use (e.g., bollards, red curb or red pavement striping, no-parking signage, etc.). Final EVA design measures, including specific design details demonstrating these requirements will be provided and reviewed pursuant to the SPAR process and subject to review and approval by the Fire Marshal.

In response to safety concerns raised in the Draft EIR and recognition that the CPUC was highly unlikely to issue necessary approvals, the Revised Project no longer proposes an extension of Shasta Avenue across the SMART railroad tracks or its associated at-grade rail crossing. Primary access to the Revised Project is now proposed via existing Graylawn Avenue only, similar to Alternative #4 as presented in the Draft EIR.

An internal roadway/drive aisle provides a looped connection between Graylawn Avenue, providing a vehicle connection to each of the apartment buildings. To serve the 205 new residential units, parking would be provided through a combination of 379 designated parking garage spaces within the apartment buildings, and an additional 51 surface parking spaces located along the internal looped drive aisle, or 430 total parking spaces. This amount of parking reflects an average ratio of 2.1 parking spaces per dwelling unit and approximately 1.2 parking space per bedroom. This amount of parking satisfies the relevant parking requirement of Section 11.060 (Table 11: Dwellings-Multiple Household) of the City of Petaluma Implementing Zoning Ordinance (IZO), which requires an overall parking ratio of no less than 1.5 parking spaces per unit and a minimum of 1 covered or uncovered parking space for each bedroom.

Similar to the original Project, pedestrian improvements proposed as part of the Revised Project include:

- A sidewalk is provided along the east side of the Revised Project frontage along Graylawn, extending north from the current sidewalk terminus. The Revised Project includes a landscape strip between the sidewalk and the street as City Standards direct, enabling retention of existing redwood trees (the original Project did not).
- A riverside pedestrian/bicycle trail extends the full length of the site's frontage along the River, and connects to the existing trail that currently ends at the Oak Creek Apartments. This segment of trail would terminate at the site's northwesterly boundary (east of the SMART rail tracks). Like the original Project, the Revised Project does not explicitly show the path extending all the way to the site's northwesterly property line, but the Project Description and this environmental analysis include the full connection (see DEIR page 3-16). Unlike the original Project, the Revised Project proposes a small branch of the river trail providing access to the River edge.
- A publicly accessible pedestrian/bicycle trail would connect from the Graylawn Avenue turnaround to the Riverside trail

In addition, the applicant has voluntarily agreed to implement a Traffic Calming Plan as part of the Revised Project to address increased traffic on Graylawn and Jess Avenues, intended to slow traffic speeds and increase the livability of the adjacent neighborhoods (see **Appendix A**). The strategies presented within the Traffic Calming Plan are intended to be conceptual in nature and are not intended for immediate

implementation without a community engagement process followed by detailed engineering design. As part of the SPAR process, the Planning Commission will review and consider approval of a final Traffic Calming Plan, specifically determining which traffic calming measures will ultimately be implemented.

Utilities

Water, sewer, electricity, natural gas, telephone and cable services are available either at or near the site. Serving the site will not require service main extensions. Similar to the original Project, water and sewer laterals will serve the new buildings and will connect to City of Petaluma systems via pipes in Graylawn Avenue and within the existing Oak Creek Apartments site. Telephone and electricity services are currently provided by overhead lines, which will be replaced at the site with underground service in a joint trench for these utilities.

Stormwater Management

Storm runoff from the Revised Project site will be collected within an underground storm drain system. One system will collect stormwater runoff from the majority of the development site. This drainage system will first discharge via an outfall into a new stormwater detention basin constructed north of the existing Oak Creek Apartments, where the stormwater will receive water quality treatment via bioretention. The new bioretention basin will discharge via two riprap outlets into existing and newly created wetland areas within the Revised Project's terraced grading along the River, and ultimately flow out of these wetland areas over weirs and onto the bank of the River, where it will seep and flow into the River. A second, similar but smaller storm drain system will collect drainage from the most northwesterly portion of the development site. This system also includes a separate bioretention basins and system of newly created wetlands that ultimately discharge overflow over a weir at the lower bank of the River.

Consistent with Provision C.3 of the National Pollutant Discharge Elimination System (NPDES), surface runoff will be directed through graded swales and bio-retention facilities within the development area to provide passive filtration prior to discharge, where possible.

Grading and Restoration

Development Area Grading

Similar to the original Project, the grading plan for the Revised Project provides for a general leveling of the site by lowering the most southerly portion of the site and raising the northerly portion of the site nearest to the River. The finish grade across the Project site will retain the south-to-north slope toward the River. The development site will be sub-excavated to remove existing vegetation and the sub-excavated area will be scarified and re-compacted.

To provide greater consistency with Petaluma River Plan policies and Petaluma's Tree Ordinance, the grading plan for the development area within the River-Oriented Development Zone (APN-009) and within APN-006 has been redesigned in an effort to preserve more of the desirable and significant healthy trees. This redesign of the grading and development plan provides for greater preservation of oak trees than was achieved under the original Project. The grading and development plan of the Revised Project is also pulled back further away from the River, which retains all protected trees within the Petaluma River Plan Corridor (see **Figure 2-5**). The Revised Project's redesigned grading plan substantially implements Mitigation Measure Bio-11 of the Draft EIR (see additional discussion in Chapter 3: Analysis of the Revised Project related to Biology).



Figure 2-5
 Revised Project's Relationship to River Plan Corridor and
 Environmental Constraints



Petaluma River Terraced Grading Plan

The Petaluma General Plan Policy 8-P-28 provides that, “the area [adjacent to the Petaluma River] upstream of the Corps weir and below the confluence of Willow Brook Creek, and located within the floodplain, shall include a Petaluma River Corridor set-aside for the design and construction of a flood terrace system.” The purpose of the flood terrace system is to, “allow the River to accommodate a 100-year storm event within a modified River channel, to the extent feasible given existing physical and natural constraints.” Consistent with this General Plan policy and similar to the original Project, the Revised Project includes a terraced grading plan for the segment of the Petaluma River bank within the Revised Project site, and extending approximately 300 feet onto the adjacent Oak Creek Apartments parcel.

The Revised Project includes a terraced grading plan that is similar to that of the original Project, involving re-grading of the western bank of the River to improve flood capacity and flow efficiency (see **Figure 2-6**). The terraced grading plan is separated into three areas: the lower reach terrace, the middle reach terrace, and the upper reach terrace. Grading for the lower terrace is very similar to that proposed pursuant to the original Project, designed to minimize affects to an existing grove of trees and to retain the larger on-site wetland. Grading for the mid terrace provides for the creation of a new wetlands area on the terrace bench, and has been modified to avoid removal of a protected oak tree (#67) that the original Project had proposed removing. Grading for the upper terrace also provides for the creation of a new wetlands area on the terrace bench and has been modified to avoid removal of a protected oak tree (#80). These revisions serve to preserve greater numbers of protected trees to the extent feasible, while still accommodating the intended channel widening and flood control objectives.

The Revised Project’s terraced grading concept still accommodates an overall widened channel design. Like the original Project, grading for the Revised Project’s terracing plan would generally include a gradual slope from the low-flow channel of the River rising between 5 to 10 feet in elevation to a berm, with a steeper banked slope from the berm to meet existing grade at the upland portion of the site. Grading for the Revised Project’s Terracing Plan would still result in substantial cuts along the western riverbank. Approximately 20,250 net cubic yards (CY) of material would be removed from the channel banks, as compared to 21,140 CY of cut material pursuant to the original Project (or approximately 4 percent less cut). A portion of this total cut material would be redistributed onto the upper development-portion of the site, but a net surplus of approximately 15,500 CY of material will need off-site export. Pursuant to City General Plan policy and Section 6.070 of the IZO, the Revised Project’s grading plan would reduce (not increase) fill within the 100-year flood zone.

Restoration/Habitat Mitigation Monitoring Plan

The Habitat Mitigation Monitoring Plan (HMMP) prepared for the original Project would become part of the Revised Project. The HMMP provides for habitat replacement and mitigation for impacts caused to riparian habitat by the river terrace grading, and mitigates impacts to seasonal wetlands within the upland development area. The HMMP includes plans for removal of invasive monocultures of Himalayan blackberry patches, creation of new floodplain terraces, creation and restoration of riparian habitat, creation of new perennial and seasonal wetlands habitat as mitigation for impacted wetlands, and revegetation of the graded and re-contoured terrace area with native riparian vegetation. The change in terrace grading that is needed to preserve two protected valley oak trees results in slightly less created wetlands than had been proposed pursuant to the original Project, but the 0.47 acres of created wetlands will still exceed the functions and values of the approximately 0.34 acres of seasonal wetland proposed to be filled by the Revised Project. Consistent with the Petaluma River Plan, the HMMP’s planting plan provides for restoration of the riverbank with new transitional habitat.

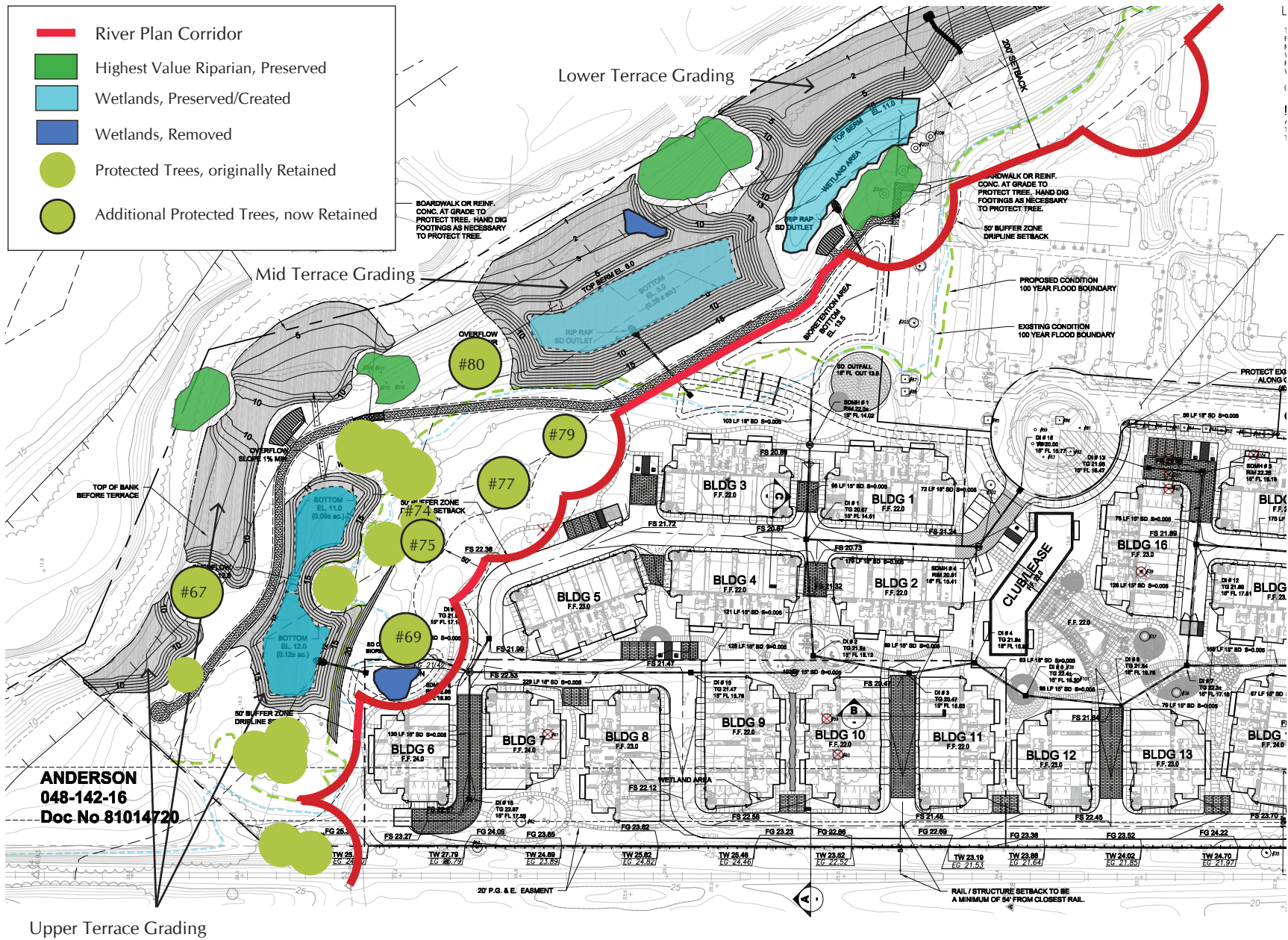


Figure 2-6
Revised Project's Terraced Grading Plan

Comparative Environmental Assessment of the Revised Project

As indicated in the previous chapter of this Final EIR, the Project applicant has prepared a Revised Project in response to environmental issues raised in the Draft EIR, as well as in response to public comments on the Draft EIR, and City Planning Commission and City Council concerns raised during the Draft EIR public hearing process. The following analysis provides an assessment of the Revised Project's environmental impacts, and as compared to the potential impacts that would have occurred under the original Project.

The following comparative analysis focuses on those environmental impacts that are substantially different from conclusions as presented in the Draft EIR based on changes made pursuant to the Revised Project, including increased setbacks from the River and railway corridor, removal of the Shasta Avenue Extension and its at-grade rail crossing, and a reduction in residential density from 278 units to 205 units. To the extent that mitigation measures from the Draft EIR (as may be modified) still apply to the Revised Project, or new mitigation measures and non-CEQA recommendations now apply to the Revised Project, these mitigations measures and recommendations are also identified as part of this assessment.¹

Substantially Different Environmental Conclusions

Biological Resources

Consistency with Petaluma River Plan Corridor

The Revised Project **substantially reduces** conflicts with local policies and ordinances as included the City's Petaluma River Plan Corridor for protecting biological resources, as compared to the original Project. **(Less than Significant with Mitigation)**

The Revised Project has a modified site plan that no longer includes any residential structures that intrude into the River Plan's designated River Corridor. The Revised Project's proposed development plan for new apartments no longer encroaches into the Petaluma River Access and Enhancement Plan (River Plan) Buffer Zone (as delineated by individual tree canopies and wetlands, the river centerline, and the new river terrace), and allows for greater retention of oak trees within the oak woodland habitat along the upper riverbank (see prior Figure 2-5). Other than a minor encroachment of the residential sidewalk and a proposed bio-retention basin, the only components of the Revised Project that are located within the River Corridor are the riverside trail, terracing and restoration activities.

¹ Generally, only the primary text of applicable Draft EIR mitigation measures is included in the following assessment, unless the details of applicable mitigation measures have been revised substantively. The details of each mitigation measure can be found in the Summary Table of Impacts and Mitigation Measures (Chapter 1) of this document)

Mitigation Measures

Since the Revised Project does not include any residential structures in the River Corridor, but the concept plan does show a minor encroachment of segments of residential sidewalk and a proposed bio-retention basin, Mitigation Measures Bio-10A (which is intended to preclude residential development and associated improvements from intruding into the Petaluma River Plan Corridor) and Bio-10B are retained and modified, as follows:

Mitigation Bio-10A, Limitations on Improvements within the Petaluma River Plan Corridor: No residential structures or directly related residential components of the Project shall extend into the Petaluma River Plan Corridor (comprised of the Preservation, Restoration, and Buffer Management Zones of the River Plan, see Corridor mapped at Figure 2-5). The only improvements allowed within the River Plan Corridor include the river trail, terracing and restoration. During the SPAR process, the Planning Commission could allow minor encroachments associated with residential improvements, such as a detention basin and/or segments of sidewalk within the outer buffer management zone, if found to be consistent with the intent of the River Plan and not impactful to the River Plan Corridor.

Mitigation Measure Bio-10B, RODZ review at SPAR: The Site Plan and Architectural Review process shall include evaluation and review of the Revised Project for consistency with River Oriented Development Zone (RODZ) policies and design guidelines (see River Plan page 79-80 and Chapter 9: Design Guidelines). As the concept plan for the apartment project is fully detailed for Site Plan and Architectural Review, the northern portion of the Project that is within the RODZ (APN -009) shall be designed pursuant to the RODZ Guidelines.

The Revised Project does not contain buildings that encroach into the River Plan Corridor Boundary and minimizes conflicts with local policies and ordinances of the River Plan for protecting biological resources. This conclusion is substantially different from the conclusion reached in the Draft EIR for the original Project, as the original Project did include residential buildings located within the River Plan Corridor and its oak woodland habitat.

Tree Removal and Tree Protection

The Revised Project would **substantially reduce** potential conflicts with local policies and ordinances protecting biological resources, including the City's tree preservation policies and ordinance. (**Less than Significant with Mitigation**)

The Revised Project has fewer units as compared to the original Project and has a modified site plan that eliminates the Shasta Avenue Extension and at-grade rail crossing. With the reduction in units and changed roadway pattern and other modifications, the Revised Project is able to reduce, by a substantial amount, the number of trees proposed for removal as compared to the original Project.

- The Revised Project's terraced grading plan has been modified to provide for protection of two additional large oak trees along the riverbank (trees #67 and 80). Additionally, the Revised Project no longer intrudes into the River Plan's designated River Corridor. Since the boundary of the River Corridor as defined for the site includes a 50-foot setback from the drip line of healthy and significant riparian oak trees, respecting the River Corridor enables preservation of four additional oaks (trees #69, 75, 77 and 79) and one smaller California bay tree (#74) along the top of bank and within the site's designated oak woodland habitat. The Revised Project does not propose removal of any protected tree within the River Corridor area.
- The Revised Project's modified site plan has been designed to preserve a greater number of isolated oak trees located within the site's River-Oriented Development Zone (RODZ). Although preservation of all existing oak trees in the site's RODZ is unlikely without conflicts with land development

considerations, the conceptual design of the Revised Project preserves substantially more trees in the RODZ than did the original Project, including preservation of five additional isolated oaks (trees #36, 37, 62, 101 and 202) and one additional redwood (#85).

- The Revised Project's site plan has also been designed to preserve a greater number of protected trees within the parcel at APN-006 (not in the River Plan jurisdiction). Trees now proposed for preservation include those protected trees along the edge of the adjacent Bernice Court neighborhood (trees #1, 2, 13, 17, and 100), protected oaks (oaks #41 and 103) along the Graylawn frontage, and most of the redwoods along the Graylawn frontage (including protected redwoods #42, 43, 46-50, 52 and 53).

A summary of changes in proposed tree removal that compares the original Project to the Revised Project is shown in **Table 3-1** and **Figure 3-1**.

Table 3-1: Status of Protected Trees
(original Project / Revised Project)

<u>Protected Species on and near Site</u>	<u>Total Protected Trees</u>	<u>Protected Trees Preserved</u>	<u>Protected Trees Removed</u>			<u>Total Removed</u>
			<u>Removed in River Plan Corridor</u>	<u>Removed in RODZ</u>	<u>Removed in APN - 006</u>	
Oaks	51	24 / 42	6 / 0	8 / 3	13 / 6	27 / 9
Redwoods	13	2 / 12	-	1 / 0	10 / 1	11 / 1
Box Elders at River ¹	4	4 / 4	0 / 0	-	-	0 / 0
Total	68	30 / 58	6 / 0	9 / 3	23 / 7	38 / 10

Source of original Project data: Becky Duckles, Oak Creek II Tree Inventory and Evaluation, revised September 2004; Sid Commons, Petaluma, CA. Arborist Report – Response to City & Tree Removal and Mitigation Calculations, Aug 2016

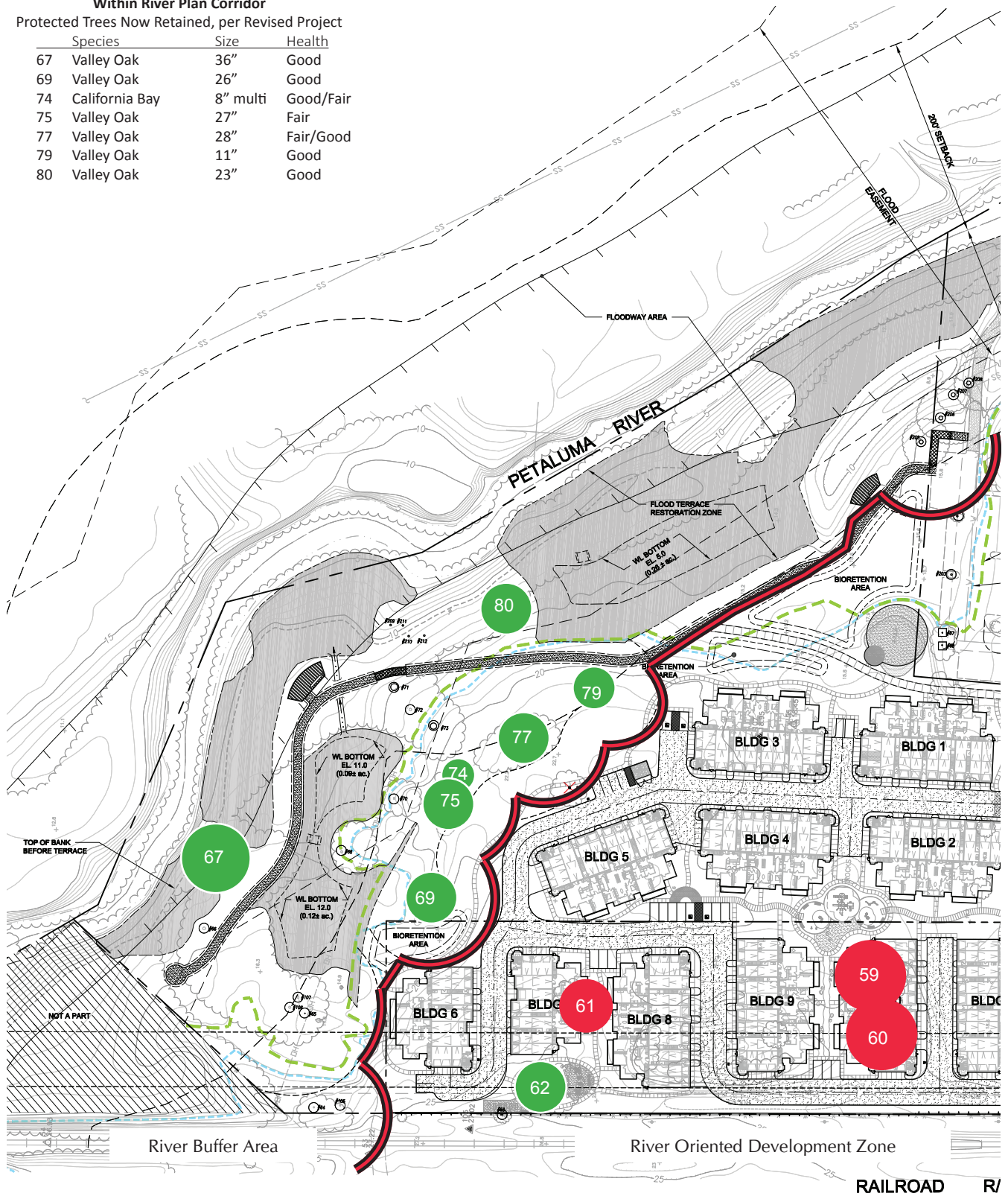
Note 1: Pursuant to the City of Petaluma Tree Preservation Ordinance, Box Elder is protected as native trees when located in a riparian corridor, and is listed here because they are within the boundaries of the River Plan Corridor and healthy

The modified site plan of the Revised Project substantially implements Mitigation Measure Bio-11A of the Draft EIR by preserving additional existing trees on the site. The modified site plan demonstrates a substantial increase in tree preservation of 28 more trees, although 10 protected trees are still proposed for removal to allow for development of the Revised Project. The Revised Site Plan is a preliminary concept plan and is subject to detailed design refinement pursuant to the Site Plan and Architectural Review (SPAR) process. During SPAR review, the following specific tree preservation requirements shall be monitored for compliance, and the SPAR process may consider additional site design modifications to further increase tree preservation.

Within River Plan Corridor

Protected Trees Now Retained, per Revised Project

Species	Size	Health
67 Valley Oak	36"	Good
69 Valley Oak	26"	Good
74 California Bay	8" multi	Good/Fair
75 Valley Oak	27"	Fair
77 Valley Oak	28"	Fair/Good
79 Valley Oak	11"	Good
80 Valley Oak	23"	Good



Protected Tree to be Preserved, originally proposed for Removal

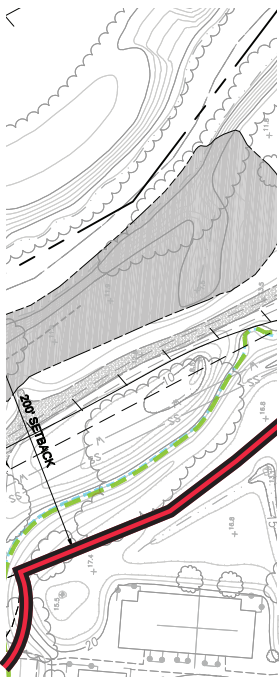


Protected Tree proposed for Removal, also originally proposed for Removal

Figure 3-1

Tree Removal, Comparison of Revised Project to original Project





Within River Oriented Development Zone

Protected Trees Now Retained, per Revised Project

	Species	Size	Health
36	Valley Oak	37"	Good
37	Valley Oak	24"	Fair
62	Valley Oak	18/20/24"	Good
85	Coast Redwood	19"	Good
101	Coast Live Oak	5/9"	Excellent
202	Valley Oak	5"	Excellent

Within River Oriented Development Zone

Protected Trees Removed, per Revised Project

	Species	Size	Health
59	Valley Oak	34"	Good
60	Valley Oak	36"	Good
61	Valley Oak	21"	Good

Outside River Oriented Development Zone

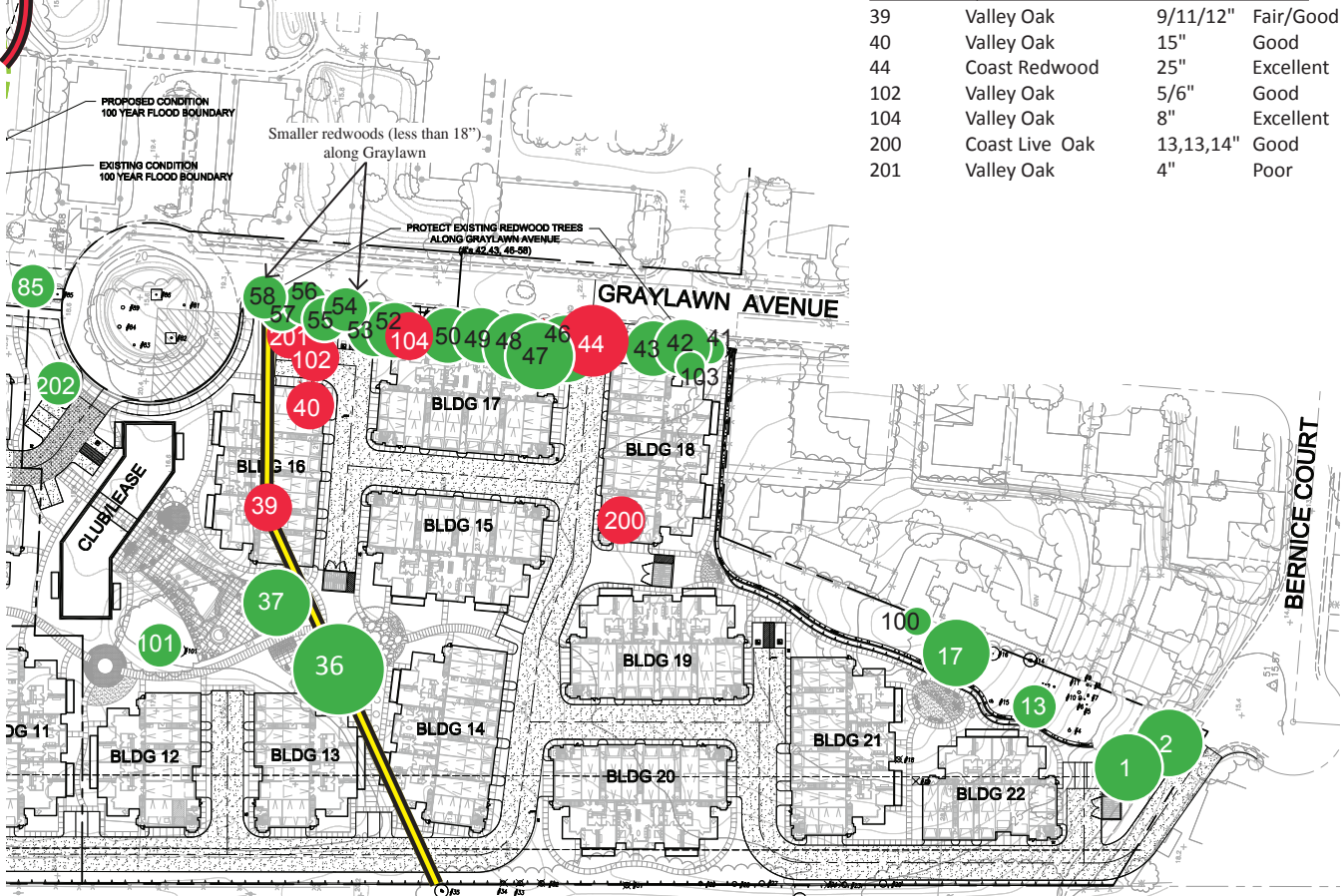
Protected Trees Now Retained, per Revised Project

	Species	Size	Health
1	Valley Oak	23"	Good
2	Valley Oak	23"	Good
13	Valley Oak	11/8"	Good
17	Valley Oak	20"	Good
41	Valley Oak	6/7"	Fair/Good
42	Coast Redwood	21"	Good
43	Coast Redwood	24"	Excellent
46	Coast Redwood	25"	Good
47	Coast Redwood	26"	Good
48	Coast Redwood	26"	Good
49	Coast Redwood	18"	Good
50	Coast Redwood	21"	Good
52	Coast Redwood	21"	Good
53	Coast Redwood	18"	Good
100	Valley Oak	6/7/9"	Fair/Good
103	Valley Oak	9"	Good

Outside River Oriented Development Zone

Protected Trees Removed, per Revised Project

	Species	Size	Health
39	Valley Oak	9/11/12"	Fair/Good
40	Valley Oak	15"	Good
44	Coast Redwood	25"	Excellent
102	Valley Oak	5/6"	Good
104	Valley Oak	8"	Excellent
200	Coast Live Oak	13,13,14"	Good
201	Valley Oak	4"	Poor



River Oriented Development Zone Outside River Oriented Development Zone

R/W

- Protected Tree (plus smaller redwoods along Graylawn) to be Preserved, originally proposed for Removal
- Protected Tree proposed for Removal, also originally proposed for Removal



Mitigation Measures

To ensure that those additional trees now identified as being protected are ultimately protected during grading and construction, Mitigation Measure Bio-11A (as modified) and Bio-11C remain applicable to the Revised Project. Additionally, although substantially fewer protected trees are now proposed for removal, Mitigation Measure Bio-11B also remains applicable to the Revised Project, providing for replacement of protected trees to be removed.

Mitigation Measure Bio-11A, Ensuring Preservation of Existing Trees: The final designs of the residential portion of the Project should be designed to reflect the goal of preserving protected trees to the greatest extent possible, particularly those protected trees located within the Petaluma River Plan Corridor and those isolated oaks in the RODZ. While it is recognized that the preservation of all existing trees on the Project site may conflict with reasonable land development considerations and with creation of the terrace directed by the General Plan, the final design of the Project, to be reviewed at SPAR, shall seek to preserve the most desirable and significant healthy trees on site.

- a) No protected tree shall be removed unless a tree removal, grading or building permit is issued by the Community Development Department.
- b) As the Revised Project depicts, the residential structures and their associated improvements shall not extend into the Petaluma River Plan Corridor. Protected healthy oak trees located within the Petaluma River Corridor (trees #69, 75, 77 and 79) shall be preserved. Within the Petaluma River Plan Corridor, the small California bay (#74) shall also be preserved as a native tree within the Corridor. The eucalyptus (#76) shall be removed as an exotic species undesirable near a riparian setting.
- c) As the Revised Project concept plan depicts, not more than three mature oak trees shall be removed from the RODZ (i.e., within APN-009) to accommodate the Project. The Revised Project's concept plan shows these as oaks #59, 60 and 61. Younger oaks #101 and 202 shall also be preserved. Should the updated arborist review (per Mitigation Measure Bio-11E) find that any of the large oaks proposed to be preserved by the concept plan is not healthy and a good candidate for preservation, the site plan designed for SPAR shall instead preserve another of the large oaks on APN-009.
- d) The SPAR process shall further consider site design modifications to preserve protected trees to the greatest extent possible at APN-006 (as directed by the Tree Ordinance). Each Protected tree shall be further considered for preservation; oaks #1, 13, 17 and 100 shall be particularly pursued. Tree protection on APN-006 shall be equal to that depicted by the Revised Project's concept plan. Thinning of the redwoods along Graylawn may be authorized by SPAR if recommended by the arborist. The EVA shall be designed to accommodate oaks 1 and 2, but should the Fire Marshal and the arborist find this impossible, SPAR is authorized to allow their removal pursuant to Mitigation Measure Bio 11-B.
- e) During preparation of the site plan for SPAR, the applicant shall work collaboratively with the arborist and the civil engineer to design a site plan that addresses Bio 11B through 11D. The arborist shall provide further tree preservation analysis as part of the SPAR submittal, and shall ensure that all trees over 4 inches at breast height are included in the analysis.

Mitigation Measure Bio-11B, Protected Tree Replacements: For all protected trees permitted by the City to be removed, the project applicant shall provide replacement trees.

Mitigation Measure Bio-11C, Tree Protection Plan: All trees designated for preservation must have a good chance of long-term survival. Consistent with the River Plan, a tree protection plan for the site shall be prepared by a licensed landscape architect, arborist or certified forester, and approved by

the City for all trees to be preserved within the site to protect them during on-site grading and construction.

Of the 68 protected trees on the site, the Revised Project results in protection of 58 trees, representing 28 more trees being protected than was proposed for protection under the original Project. The Revised Project does result in removal of 10 protected trees from within the site, but substantially fewer than the 38 trees proposed for removal under the original Project. The conclusions of this analysis are different than presented in the Draft EIR, now concluding that the Revised Project would substantially reduce conflicts with the City's tree preservation policies and ordinance.

Land Use

Conflict with a Conservation Plan

The Revised Project **substantially reduces** conflicts with the Petaluma River Plan as compared to the original Project, but does not fully resolve all conflicts. Development of the site pursuant to the Revised Project would result in the filling of wetlands within the River Oriented Development Zone (RODZ) and would result in the removal of mature oak trees at the site. These actions would not be fully consistent with objectives, policies and programs identified in the Petaluma River Plan. (**Less than Significant with Mitigation**)

The River Plan identifies a portion of the site near the Petaluma River as "Oak Grove/Riparian Woodland Preservation Zone", and identifies seasonal wetlands on APN -009. The Draft EIR determined that filling of these wetlands and removal of mature oaks in order to develop the original Project would conflict with River Plan policies. Removal of mature oaks in both the upland and riparian oak woodland areas of the site to enable development is inconsistent with Objective #3 of the River Plan to "protect and preserve the existing communities of mature riparian vegetation, and restore and enhance native riparian and upland habitats." Filling of wetlands would be inconsistent with Policy #20 of the River Plan to "protect, restore and enhance areas of fragile habitat isolated in the RODZ, such as oaks and seasonal wetlands, whenever feasible." Mitigation Measures were identified in the Draft EIR (primarily in Chapter 6: Biology), that would mitigate impacts to biological resources and would serve to minimize conflicts with objectives, policies and programs of the River Plan.

Upland Development Area

The Revised Project's modified site plan no longer includes any residential buildings that intrudes into the River Plan's designated River Corridor. The Revised Project's conceptual site plan no longer encroaches into the Preservation Zone for oak woodland habitat or into the Buffer Zone as delineated by individual tree canopies along the edges of the woodland habitat, and allows for retention of many more trees than was achieved under the original Project (see prior Figure 3-1). The only components of the Revised Project located within the River Corridor, other than sidewalks and the bio-retention basin associated with the residential development, are the riverside trail, terracing and restoration activities, which are permitted pursuant to the River Plan and/or the General Plan. This change in the site plan complies with, or largely implements Mitigation Measure Bio-10A of the Draft EIR.

The Revised Project's modified site plan better achieves the River Plan goal of preserving protected trees, particularly by preserving all protected oak trees and native trees located within the River Plan Corridor, and by protecting more of the isolated oaks within the RODZ. Preservation of all existing protected trees on the site may conflict with reasonable land development considerations, but the design of the Revised Project does preserve many more of the most desirable and significant healthy trees on site. This change in the site plan complies with and serves to implement Mitigation Measure Bio-11A of the Draft EIR.

Like the original Project, the Revised Project proposes to fill six small seasonal wetlands (comprising 0.33 acres in total) that are located within the RODZ, isolated from the river and above the 100-year flood elevation on the site's westerly side near the SMART rail line. The Revised Project also proposes to fill a small, 0.01-acre seasonal wetland near the River to accommodate the river terrace. Like the original Project, mitigation for the loss of approximately 0.34 acres of wetlands is proposed by creating new wetland areas within the terraced grading of the riverbank.

Terraced Grading Plan

The Revised Project's terraced grading plan is similar to the terraced grading plan of the original Project, with the exception of providing for the preservation of two additional oak trees (#67 and #80) along the riverbank. The Revised Project's terraced grading plan would still result in removal of approximately 1.62 acres of riparian habitat due to terraced grading, but would (like the original Project), preserve approximately 0.3 acres of higher value native willow thicket along the riverbank (see prior Figure 2-6). Following grading activities, the graded slopes will be replanted with riparian trees and shrubs providing for a total of approximately 2.8 acres of replanted riparian habitat.

Like the original Project, the Revised Project proposes creation of new perennial and seasonal wetland habitat as mitigation for impacts to wetlands, augmenting habitat value and increasing habitat complexity along the River. Terraced grading along the River edge is proposed to include creation of new seasonal wetlands with appropriate wetland hydrology and native wetland plant establishment, resulting in creation of approximately 0.47 acres of seasonal wetland habitat. In order to preserve additional oak trees in the terrace area, the Revised Project proposes 0.07-acres less created wetland than the original Project, but the proposed creation of approximately 0.47 acres of new wetlands will still replace and/or exceed the functions and values of the approximately 0.34 acres of filled seasonal wetland.

Mitigation Measures

The following mitigation measures from the Draft EIR (as modified based on the Revised Project's concept plan) remain applicable to the Revised Project to ensure that the final site plan remains consistent with the City's River Access and Enhancement Plan.

Mitigation Measure Bio-4, Compensation for Seasonal Wetlands Fill: The Project applicant shall provide on-site compensatory mitigation for fill of seasonal wetlands sufficient to achieve a no-net-loss standard (subject to additional requirements of the permitting agencies), providing new, higher quality wetlands habitat value than the low value habitat lost as a result of Project's fill and terrace grading.

Mitigation Measure Bio-5A, Riparian Preservation Zone: Final grading plans for the Project's proposed terraced grading concept along the Petaluma River shall include a Riparian Preservation Zone of a minimum of 0.30 acres in size, where the preservation of existing high quality riparian vegetation shall be achieved. All development, including trails, grading and flood control alterations shall be prohibited in this Riparian Preservation Zone, with only minimal intrusions in carefully selected locations that could be authorized by the City for interpretive purposes only.

Mitigation Measure Bio-5B, Riparian Tree Preservation: Special measures shall be implemented to protect riparian and oak woodland trees within and abutting the riparian zone (and as that zone is expanded by the river terracing project), including trees 65, 106, 107, 66-68, 70-74, 80, 209-212, and 205-208, and the 0.30 acre willow thicket designated as a Riparian Preservation Zone.

Mitigation Measure Bio-5C, Habitat Mitigation and Monitoring Plan: A final Habitat Mitigation and Monitoring Plan (HMMP) shall be submitted for review and approval by the regulatory agencies and

the City, designed and constructed such that it contributes significantly to the wildlife and fishery habitat values and water quality of the greenway.

Mitigation Measure Bio-6: Terraced Grading Erosion Control/Stormwater Pollution Prevention

Plan: The Project applicant shall prepare and implement a specific Terraced Grading Erosion Control Plan for all terrace grading work and trail construction within and abutting the Petaluma River floodplain.

Mitigation Bio-9: Incorporation of Native Plants in Landscaping Plans: The Project applicant shall submit a Landscape Plan for review and approval by the City, incorporating the planting of native trees and ground cover plants consistent with the goals and objectives for this reach of the River as described in the Petaluma River Access and Enhancement Plan.

Mitigation Bio-10A, Limitations on Improvements within the Petaluma River Plan Corridor: No residential structures or directly related residential components of the Project shall extend into the Petaluma River Plan Corridor (comprised of the Preservation, Restoration, and Buffer Management Zones of the River Plan, see Corridor mapped at Figure 2-5). The only improvements allowed within the River Plan Corridor include the river trail, terracing and restoration. During the SPAR process, the Planning Commission could allow minor encroachments associated with residential improvements, such as a detention basin and/or segments of sidewalk within the outer buffer management zone, if found to be consistent with the intent of the River Plan and not impactful to the River Plan Corridor.

Mitigation Measure Bio-10B: RODZ review at SPAR: The Site Plan and Architectural Review process shall specifically include an evaluation and review of the Project for consistency with River Oriented Development Zone (RODZ) policies and design guidelines, such that the northern portion of the Project that is within the RODZ is designed pursuant to those RODZ Guidelines.

Mitigation Measure Bio-11A, Ensure Preservation of Existing Trees: The final designs of the residential portion of the Project should be designed to reflect the goal of preserving protected trees located within the Petaluma River Plan Corridor and those oaks isolated in the RODZ. While it is recognized that the preservation of all existing trees on the Project site may conflict with reasonable land development considerations and with creation of the terrace directed by the General Plan, the final design of the Project, to be reviewed at SPAR, shall seek to preserve the most desirable and significant healthy trees on site.

Mitigation Measure Bio-11B: Protected Tree Replacements: This mitigation measure requires the project applicant to provide replacement trees for all protected trees permitted by the City to be removed.

Mitigation Measure Bio-11C: Tree Protection Plan: This mitigation measure requires the project applicant to prepare a tree protection plan that provides all trees designated for preservation with a good chance of long-term survival, consistent with the recommendations of a licensed landscape architect, arborist or certified forester and approved by the City.

Implementation of these mitigation measures would reduce potential conflicts with biological resource protection policies of the Petaluma River Access and Enhancement Plan to a level of less than significant.

Hazardous Conditions - Increased Presence along Rail Tracks

The Revised Project would result in increased presence along the rail racks, but reduces this potential safety hazards with fencing along the site frontage along the tracks. **(Less than Significant)**

The site's entire westerly boundary is parallel and immediately adjacent to the SMART railroad right-of-way. The increased presence of residents and visitors in an area immediately adjacent to the rail tracks could result in a greater potential for rail-related accidents along this portion of the line. However, pursuant to Mitigation Measure Hazards 5, the Revised Project includes a mobility barrier fence along the edge of and parallel to the rail tracks to limit access onto the railroad right-of-way.

Mitigation Measures

The following mitigation measure from the Draft EIR (as modified) remains applicable to the Revised Project.

Mitigation Measure Haz-5, Fencing: As demonstrated in the Revised Project's conceptual design, the Project shall include an open-design appropriate fence along the edge of and parallel to the rail tracks, with consideration provided to the protection of existing trees and to limit access onto the railroad right-of-way. The final fence design shall be subject to SPAR review and approval.

Noise

Land Use Compatibility

The Revised Project would **substantially reduce** exposure of new residents to future noise levels in excess of established standards as compared to the original Project.

According to the California Supreme Court's decision in *California Building Industry Association v Bay Area Air Quality Management District* (S213478, December 17, 2015), CEQA generally does not require that public agencies analyze impacts that existing (or potential future) environmental conditions might have on a project's future users or residents. An agency must analyze how environmental conditions might adversely affect a project's residents or users only where the project itself might worsen existing environmental hazards. Accordingly, the effect that existing or potential future ambient noise levels may have on the Revised Project (or the original Project) is not a CEQA matter. Therefore, the following analysis of the exposure of new residents to existing or future ambient noise levels as attributed to train noise on the adjacent SMART rail is provided for informational purposes and pursuant to General Plan policy, but is not considered a significant CEQA impact of the Revised Project.

As established in the Petaluma General Plan 2025, the policy for defining exposure of persons to noise levels in excess of established standards is an exposure to noise levels of greater than 65 dBA CNEL (a "conditionally acceptable" noise level) for multi-family residential uses. As indicated in the Draft EIR, the Environmental Noise Assessment for the North Coast Railroad Authority's (NCRA's) Russian River Freight Rail Project, expected future use of the rail track adjacent to the site is expected to increase to as many as 6 freight trains per day and up to 24 Sonoma-Marin Area Rail Transit (SMART) commuter/ passenger trains per day. At this level of expected train use, future noise along the rail tracks adjacent to the site is anticipated to be 65 dB CNEL at 54 feet from the tracks. This level of train activity was used in the Draft EIR as a reasonably foreseeable future condition. The Revised Project's conceptual site plan demonstrates that all future residential structures will be set back by a distance of at least 54 feet from the nearest rail track, such that all new multi-family residential buildings will be outside of this anticipated future 65 dB CNEL contour, and achieve "conditionally acceptable" noise levels.

The Federal Transit Agency (FTA) and Federal Rail Authority (FRA) have established guidance for defining acceptable exposure of primary outdoor use areas as an exposure to noise levels of greater than 60 dBA CNEL (a normally acceptable noise level). Based on the NCRA EIR, expected future use of the rail track adjacent to the site is expected to increase future noise along the rail tracks adjacent to the site to 60 dB CNEL at 109 feet from the tracks. The Revised Project does not propose any primary active outdoor use areas (i.e., the swimming pool and courtyard or active play areas) in areas within 109 feet of the rail centerline where noise levels are expected to be in excess of 60 dBA Ldn.

The Revised Project serves to implement Recommendations Noise 1A and Noise 1C (see Chapter 7: Revisions to the Draft EIR), to be verified at SPAR, as indicated below:

Recommendation Noise 1A – Ensure “Conditionally Acceptable” Noise Levels: No residential structure should be located closer than the calculated 65 dB CNEL contour. Based on existing rail noise levels, the 65-dBA CNEL noise contour is estimated to occur at approximately 30 feet from the center of the near set of railroad tracks. Based on potential future conditions (assuming increased freight rail traffic), the calculated 65 dB Ldn contour is estimated to be at 54 feet from the center of the near set of railroad tracks. The final design of the Project, to be reviewed at SPAR, should maintain a 54-foot setback from the center of the near set of railroad tracks.

Recommendation Noise 1C – Ensure Normally Acceptable Outdoor Noise Exposure: No primary outdoor use area (i.e., the swimming pool and courtyard or active play areas), should be located closer than the calculated 60 dB CNEL contour. Based on existing rail noise levels, the 60-dBA CNEL noise contour is estimated to occur at approximately 60 feet from the center of the near set of railroad tracks. Based on potential future conditions (assuming increased freight rail traffic), the calculated 60 dB Ldn contour is approximately 109 feet from the tracks. The final design of the Project, to be reviewed at SPAR, shall not locate any primary outdoor use areas (i.e., the swimming pool and courtyard or active play areas) closer than 109 feet from the center of the near set of railroad tracks. Alternatively, the Revised Project’s final design should incorporate noise attenuation into the design of all primary outdoor use areas that may include a fence or wall measuring at least 6 feet high and subject to SPAR approval, or placing primary outdoor use areas on the opposite side of a residential structure from the rail line.

The California Noise Insulation Standards found in CCR Title 24 provide the regulatory standard for defining noise exposure of indoor spaces in residential units as an exposure level of 45 dBA Ldn.² The Revised Project’s conceptual site plan indicates that the design and construction of residential units facing the rail tracks will comply with Recommendation Noise 1B from the Draft EIR. The Revised Project therefore commits to implementation of the following Draft EIR recommendation:

Recommendation Noise 1B, Noise Insulation: Prior to approval of building permits, a qualified acoustical consultant shall review final designs for floor plans and exterior elevations for construction of all residential buildings within the Project site. The design level acoustical report shall provide specific noise control treatment capable of achieving interior noise levels of 45 dBA or lower. The acoustical consultant shall identify and include on the plans and specifications for the Project those specific noise insulation treatments (i.e., sound rated windows and doors, sound-rated wall construction, acoustical caulking, protected ventilation openings, stucco siding, thicker walls, bedroom orientation, etc.) that are to be applied.

Throughout the remainder of the site, future noise levels from freeway traffic noise and rail noise are expected to be between 60 and 65 dBA CNEL, and within “normal” to “conditionally acceptable” noise levels. Standard residential building construction methods are generally capable of achieving a 15 to 20 dB reduction from outdoor noise, thus able to achieve the 45 dB interior noise requirement and reducing anticipated noise conditions inside buildings. This conclusion is different than the conclusion reached in the Draft EIR for the original Project. The modified site plan of the Revised Project provides for adequate setbacks from the adjacent SMART rail tracks to achieve “conditionally acceptable” noise levels at all multi-family residential units, and normally acceptable noise levels for outdoor recreational use areas under anticipated future conditions.

² California Code of Regulations, Title 24

Train Vibration

The Revised Project could potentially expose new residents to reasonably foreseeable future vibration levels in excess of applicable criteria established by the FTA and FRA for residential land uses.

Similar to noise exposure (see above) the exposure of new residents to existing or future vibration levels attributed to train traffic is provided for informational purposes and pursuant to General Plan policy and regulatory guidance, but is not considered a significant CEQA impact.

The Draft EIR's assessment of the original Project's exposure to train-related vibration levels was based on a reasonably foreseeable projection of future train activity on the adjacent SMART rail line as derived from the NCRA Russian River Freight EIR, which forecast increased rail traffic for SMART trains and freight rail use. Based on this forecast of future train activity, the Draft EIR recommended a 100-foot setback from the centerline of the rail, or incorporating structural design measures into the design of residential buildings closer than 100 feet from the tracks. As presented in the NCRA EIR, the 100-foot setback or structural design threshold was intended to address the guidance of the Federal Transit Authority (FTA) and the Federal Rail Authority (FRA) applicable to residences subjected to infrequent (less than 30 freight rail pass-bys per day) vibration occurrences at (80 VdB), plus a "penalty" threshold (down to 72 VdB) due to the anticipated extended duration of individual freight train events potentially including up to 60 cars in length).

SMART Train Vibrations

Current vibration data was obtained in May 2019 to measure SMART train pass-bys. These vibration measurements concluded that SMART trains produce vibration levels ranging from 58 to 59 VdB at 54 feet from the center of the rail tracks, well below the conservative NCRA EIR "penalty" threshold of 72 VdB. These measured vibration levels are relatively low due to the slow speed of train pass-bys, modern track conditions and vibration isolation included in the design of SMART trains. The Revised Project provides for a 54-foot residential set back from the centerline of the rails, more than adequate to meet the FTA 75 VdB criteria for the occasional (between 30 and 70 events per day) number of SMART train events that now occur. No further measures are required to address SMART train vibrations.

Freight Train Vibrations

Freight trains currently operate along the rail line adjacent to the Project site on an infrequent basis, with one or two freight trains on Monday and Thursday and some weekend nights only. It is uncertain whether freight rail will achieve either the frequency or the number of freight cars per train as was forecast in the NCRA EIR. Based on the current infrequent and relatively short-duration freight rail traffic on this track, the FTA criteria for infrequent train events is 80 VdB. This criteria is not a measurement of potential damage to buildings, but rather defines vibration levels that are distinctly perceptible and where many people may find this vibration level to be annoying. As cited in the Draft EIR, the NCRA EIR identified a "reference" freight train vibration level of approximately 74 to 78 VdB at a distance of 50 feet from the center of the tracks. The Revised Project includes a 54-foot setback from the nearest rail track, such that all new multi-family residential buildings will be outside of the current 80 VdB vibration zone (the criteria for infrequent freight rail traffic), and exposure to current heavy rail vibration would not exceed this FTA/FRA criteria.

However, as concluded in the Draft EIR, it is reasonably foreseeable that future train activity may increase to levels similar to that assumed in the NCRA Russian River Freight EIR (i.e., up to 6 freight trains per day, 5 during daytime and 1 at night), and/or that individual freight trains may increase to longer lengths of up to 60 cars per train. The Revised Project's 54-foot setback would achieve the infrequent rail traffic criteria of 80 VdB that would still apply to this condition, plus an additional "penalty" threshold (down to the "occasional event" criteria of 75 VdB) to address the potential for longer duration and/or nighttime vibration events. The 75 VdB criteria would occur at approximately 50 to 60 feet from the rail centerline, depending on the

individual train. For example, the NCRA EIR's "reference" freight train was assumed to generate vibration levels of approximately 75 VdB (between 74 to 78 VdB) at a distance of 50 feet.

Additionally, as was applied in the NCRA Russian River Freight EIR, the City of Petaluma could apply an even more conservative criteria to the Revised Project, inclusive of a "frequent event penalty" to further address the potential for longer duration and/or nighttime rail vibration events in the future. The "frequent event" criteria of 72 VdB occurs at approximately 100 feet from the rail centerline.

Vibration reduction strategies such as those identified in Recommendation Noise-2 of the Draft EIR (as amended, see below) could be incorporated into the design and construction of any new buildings located within 100-feet of the rail centerline, to effectively reduce vibration levels to below this more conservative 72 VdB criteria.

Recommendation Noise 2 - Avoidance/Vibration Attenuation Measures: The Project should incorporate the following vibration avoidance or reduction strategies as part of its final design and/or construction.

- a) The Revised Project's proposed 54-foot residential set back from the centerline of the nearest set of rails more than adequately meets the FTA 75 VdB criteria for the "occasional" SMART train events that now occur and that is expected to occur in the future (i.e., between 30 and 70 SMART trains per day), and should be retained.
- b) The Revised Project's proposed 54-foot residential set back from the centerline of the rails is also adequate to meet the FTA 80 VdB criteria for the "infrequent" heavy freight rail traffic that now occurs, and that is expected to occur in the future. This 54-foot setback also accommodates an additional "penalty" threshold (down to the "occasional event" criteria of 75 VdB) to address the potential for longer duration and/or nighttime vibration events, and should be retained.
- c) To address an even more conservative vibration criterion as was applied in the NCRA Russian River Freight EIR, the City of Petaluma could consider an additional "penalty" threshold to meet the "frequent event" criteria of 72 VdB, which occurs at approximately 100 feet from the rail centerline. To meet this more stringent criterion, structural design measures could be incorporated into the design and construction of residential buildings located closer than 100 feet from the tracks, as necessary to reduce groundborne vibration to below the 72 VdB criteria. Special building methods can be incorporated to reduce groundborne vibration from being transmitted into project structures.

Construction Noise Impacts

Similar to the original Project, construction of the Revised Project will result in temporary and periodically significant noise impacts, especially where grading and construction activities are to be conducted in close proximity to existing and new sensitive receptors, including the existing Oak Creek Apartments and neighbors along Bernice Court, Graylawn Avenue and Jesse Avenue. Although the Revised Project has fewer units than the original Project, its construction activities are assumed similar to those of the original Project, and are expected to occur over a similar period of approximately 20 months. During Project construction, temporary noise increases would result from the operation of heavy equipment. Construction noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between noise source and receptor, and presence or absence of barriers between noise sources and receptors. The increase in noise levels at nearby locations during construction would be temporary in nature and would not generate continuously high noise levels, although occasional single-event disturbances from construction are possible. The majority of construction activities would take place at a distance farther than 50 feet from existing residences. In the later phases of construction (i.e., during interior building construction) noise levels are typically reduced due to the newly erected physical structures that interrupt noise transmission. Thus, the

highest noise levels that would be experienced by adjacent sensitive receptors would only occur for a limited duration during construction activity. However, the temporary or period impact when grading or construction activities occur within 100 feet of an existing residence would be significant. To address construction-period noise impacts, the Draft EIR included the following mitigation measures, which are equally applicable to the Revised Project:

Mitigation Measure Noise 4A, Construction Hours: Due to the proximity of sensitive receptors (residences) to the development areas, construction activities shall be required to comply with following, and shall be noted accordingly on construction contracts. Construction activities for all phases of construction, including servicing of construction equipment shall only be permitted during the hours of 7:30 a.m. and 6:00 p.m. Monday through Friday, and between 9:00 a.m. to 5:00 p.m. on Saturdays. Construction is prohibited on Sundays and on all holidays recognized by the City of Petaluma. Delivery of materials or equipment to the site and truck traffic coming to and from the site is restricted to the same construction hours specified above.

Mitigation Measure Noise 4B, Construction Engine Controls: The Project Applicant shall implement engine controls to minimize disturbance to adjacent residential uses during Project construction. Construction equipment shall utilize the best available noise control techniques (including mufflers, intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) in order to minimize construction noise impacts. These controls shall be used as necessary to reduce heavy equipment noise to 75 to 80 dBA (Leq) at 50 feet to minimize noise levels at the closest residential receptors. If impact equipment such as jackhammers, pavement breakers, and rock drills is used during construction, hydraulically or electric-powered equipment shall be used to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used. External jackets on the tools themselves shall also be used, where feasible.

Mitigation Measure Noise 4C, Stationary Equipment and Staging: Locate stationary noise generating equipment that generates noise levels in excess of 65 dBA Leq as far as possible from sensitive receptors. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains, or other similar devices. The construction contractor shall not stage equipment within 200 feet of the existing residential land uses to the west and south of the project site. Heavy equipment, such as paving and grading equipment, shall be stored on-site whenever possible to minimize the need for extra heavy truck trips on local streets.

Mitigation Measure Noise 4D, Miscellaneous Construction Noise: The contractor shall minimize use of vehicle backup alarms and other miscellaneous construction noise. A common approach to minimizing the use of backup alarms is to design the construction site with a circular flow pattern that minimizes backing up of trucks and other heavy equipment. Another approach to reducing the intrusion of backup alarms is to require all equipment on the site to be equipped with ambient sensitive alarms. With this type of alarm, the alarm sound is automatically adjusted based on the ambient noise. Construction worker's radios shall be controlled to be inaudible beyond the limits of the project site boundaries.

Mitigation Measure Noise 4E, Noise Barriers: The construction contractor shall erect temporary walls, sound curtains or other similar devices along the property lines adjacent to the existing Oak Creek Apartments and neighbors along Bernice Court and Graylawn Avenue, to shield these existing sensitive receptors from construction noise. To the extent feasible, the construction contractor shall prioritize construction of buildings nearest to Graylawn/Bernice Court during the earlier phases of

construction, such that new buildings can serve as a noise barrier to further dampen construction noise as the site develops (see Chapter 7: Revisions to the Draft EIR).

Mitigation Measure Noise 4F, Noise Disturbance Coordinator: The Project applicant / construction contractor shall designate a city-approved Noise Disturbance Coordinator, designated to respond to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. The construction schedule and telephone number for the Noise Disturbance Coordinator shall be conspicuously posted at the Project construction site.

With required conformance with the City of Petaluma Noise Ordinance and implementation of recommended mitigation measures, all reasonable and feasible noise attenuation strategies will be implemented. With implementation of all mitigation measures as identified, the exposure of sensitive receptors to excessive noise during construction will be reduced to a less than significant level. The highest noise levels that would be experienced by adjacent sensitive receptors would only occur for a limited duration during construction activity. Not all construction activity associated with the Revised Project would occur in immediate proximity to adjacent neighbors, and construction that does occur adjacent to existing neighbors is unlikely to individually last for more than 1 year. **(Less than Significant)**

Train Horn Noise

The Revised Project would expose new residents to existing noise from train horns at the existing Payran crossing, but **would not** expose existing and new residents to additional train horn noise from trains crossing at an at-grade Shasta crossing. Future noise levels **will not** represent a substantial increase in ambient noise levels in the vicinity in the absence of the Project.

The exposure of new residents to existing noise from train warning horns is provided for informational purposes and pursuant to General Plan policy, but is not considered a significant CEQA impact of the Revised Project. As demonstrated in the Draft EIR, portions of the site and much of the surrounding neighborhoods are exposed to the “severe noise impact zone” (in excess of 60 dB Ldn) from train warning horns at the existing Payran crossing. The entire Project site is subject to “Category 2” moderate train horn noise impacts from this existing condition. Noise from existing train warning horns at the Payran crossing will affect new residents of the Revised Project, but this noise is not an impact attributable to the Revised Project. The Quiet Zone designation established for this existing at-grade crossing, effective May 23, 2017, significantly reduces noise from this location.

Unlike the original Project, the Revised Project does not include an extension of Shasta Avenue or an at-grade rail crossing. No additional severe train horn noise that would otherwise have been associated with this new crossing will occur. Noise from a new warning horn as was analyzed in the Draft EIR was attributable to the original Project’s proposed at-grade rail crossing, and this new noise source would not occur pursuant to the Revised Project. This conclusion is substantially different than the conclusion reached in the Draft EIR. Without the original Project’s at-grade rail crossing, the Revised Project would not introduce a significant new source of severe noise and no mitigation measures are warranted.

Traffic Noise Impacts

Impact Noise-6: Traffic generated by the Revised Project would not result in a permanent increase in ambient noise levels of 4 dBA CNEL or more, such that traffic noise would exceed “normally acceptable” noise levels at nearby land uses. **(Less than Significant)**

All traffic generated by the Revised Project would have only one means of ingress and egress via Graylawn Avenue, with a portion of those trips also using the Graylawn-to Jess alternative route to Payran. The expected ADT on Graylawn would increase from approximately 1,142 existing ADT to approximately 2,510 ADT with trips introduced by the Revised Project. The expected ADT on Jess would increase from approximately 419 existing ADT to approximately 642 ADT under the Revised Project. With this level of additional traffic, residences along Graylawn Avenue would experience increased traffic noise. Analysis has been conducted to determine whether this additional traffic noise would be a significant impact based on the threshold used in this EIR, which defines “significant” as a permanent increase in ambient noise levels of 4-dBA CNEL or more, if the resulting noise level would exceed that described as normally acceptable for the affected land use.

Recent (May 2019) measurements of traffic noise have been conducted at a location approximately 105 feet from the centerline of Graylawn Avenue along Cordelia Drive to quantify existing ambient traffic noise in the neighborhood (see **Appendix B** of this document). Based on these recent measurements, the current ambient noise level at this location ranges from 59 to 61 dBA CNEL on weekdays, and from 56 to 58 dBA CNEL on weekends. Existing ambient noise at residences along Graylawn is already at, and in certain cases already exceeds the “normally acceptable” noise level of 60 dBA CNEL. The increased traffic on Graylawn attributable to the Revised Project has been calculated as corresponding to an increase in traffic noise levels of approximately 3.4 dBA CNEL, and the increased traffic attributable to the Revised Project on Jess Avenue would equate to a corresponding increase in noise levels of approximately 1.9 dBA CNEL. The Revised Project’s traffic on Graylawn will contribute to existing ambient noise levels may exceed the “normally acceptable” noise level of 60 dBA CNEL, but neither Graylawn nor Jess would experience an increase in traffic noise that would exceed the threshold level of 4 dBA CNEL, and the impact would be less than significant. Furthermore, the applicant has voluntarily agreed to incorporate a Traffic Calming Plan into the Revised Project to address increased traffic on Graylawn and Jess Avenues (see Recommendation Transp-B, below). The Traffic Calming Plan is intended to, among other objectives, reduce vehicle speeds that will also reduce associated traffic noise.

Although the traffic characteristics for assessing increased traffic noise pursuant to the Revised Project are substantially different from the traffic characteristics assessed in the Draft EIR for the original Project, the conclusion regarding traffic noise is substantially the same. The increase in traffic on Graylawn and Jess Avenues would not result in a permanent increase in ambient noise levels of 4 dBA CNEL or more.

Transportation and Circulation

Project Trip Generation

The trip generation forecast for the Revised Project is based on average rates published in Trip Generation, 10th Edition (Institute of Transportation Engineers [ITE], 2017). The ITE trip generation rates contain data based on research conducted in the United States over the past few decades for various types of land uses. For purposes of both the original Project and the Revised Project, the trip generation rate for Land Use 220 “Apartments” was used (see additional discussion regarding trip generation rates in Master Responses to Comments on the Draft EIR). The expected trip generation for the Revised Project is as indicated in **Table 3-2**.

Table 3-2: Revised Project Trip Generation Estimates

<u>Land Use</u>	<u>Size</u>	<u>Daily</u>		<u>AM Peak Hour</u>			<u>PM Peak Hour</u>				
		<u>Trip Rate</u> ¹	<u>Trips</u>	<u>Trip Rate</u> ¹	<u>In</u>	<u>Trips Out</u>	<u>Total</u>	<u>Trip Rate</u> ¹	<u>In</u>	<u>Trips Out</u>	<u>Total</u>
Multi-family Residential (apartments)	205 DU	7.32	1,591	0.46	22	73	95	0.56	71	42	113

Notes:

1. Trip rates based on data for fitted curve equations published in ITE Trip Generation, 10th Edition (2017)

DU – dwelling units

The Revised Project is expected to generate 1,591 daily trips, with 95 of those trips occurring during the AM peak hour and 113 occurring during the PM peak hour. The Revised Project would generate approximately 217 fewer daily trips, 45 fewer AM peak hour trips and 58 fewer PM peak hour trips than would the original Project.

Trip Distribution and Assignment

Trip distribution describes the general geographic locations of origins and destinations of project-related vehicle trips. Trips associated with the Revised Project are assigned to roadways and intersections based on an evaluation of existing traffic patterns as indicated from surveys conducted at the adjacent Oak Creek Apartments (see Master Response to Comments on Trip Distribution), and complimentary land uses. Based on these trip distribution assumptions, traffic generated by the Revised Project was assigned to specific routes and intersections through the roadway network. From the Revised Project site, all trips will travel via Graylawn Avenue to Payran Street, with approximately 86% using Graylawn only, and 14% using the Graylawn/Jess Avenue alternative route to Payran Street. From there, Project trips will be distributed throughout the City's street system and to the freeway (see **Figure 3-2**).

This trip distribution assignment is substantially different than was assumed for the original Project, which had assumed that approximately two-thirds of the original Project trips would use the then-proposed Shasta Extension to Petaluma Boulevard North, and only one-third would use Graylawn Avenue. The Draft EIR also included an additional analysis of the original Project using only Graylawn Avenue (without the Shasta Avenue Extension).

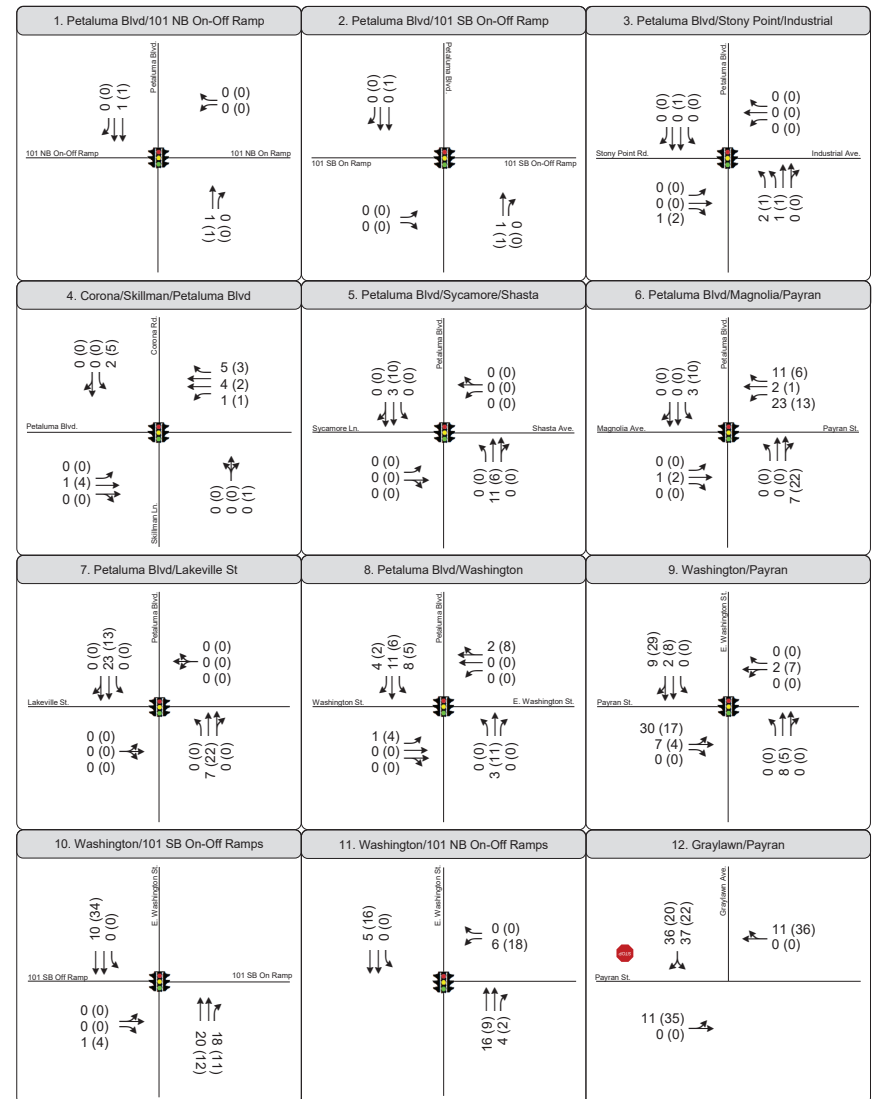
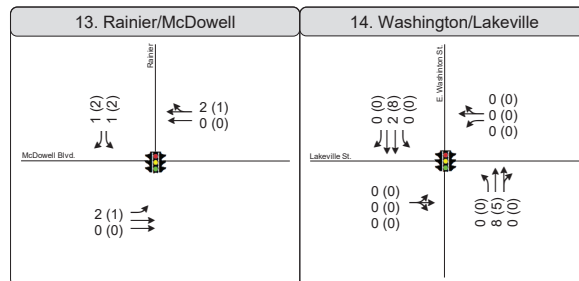
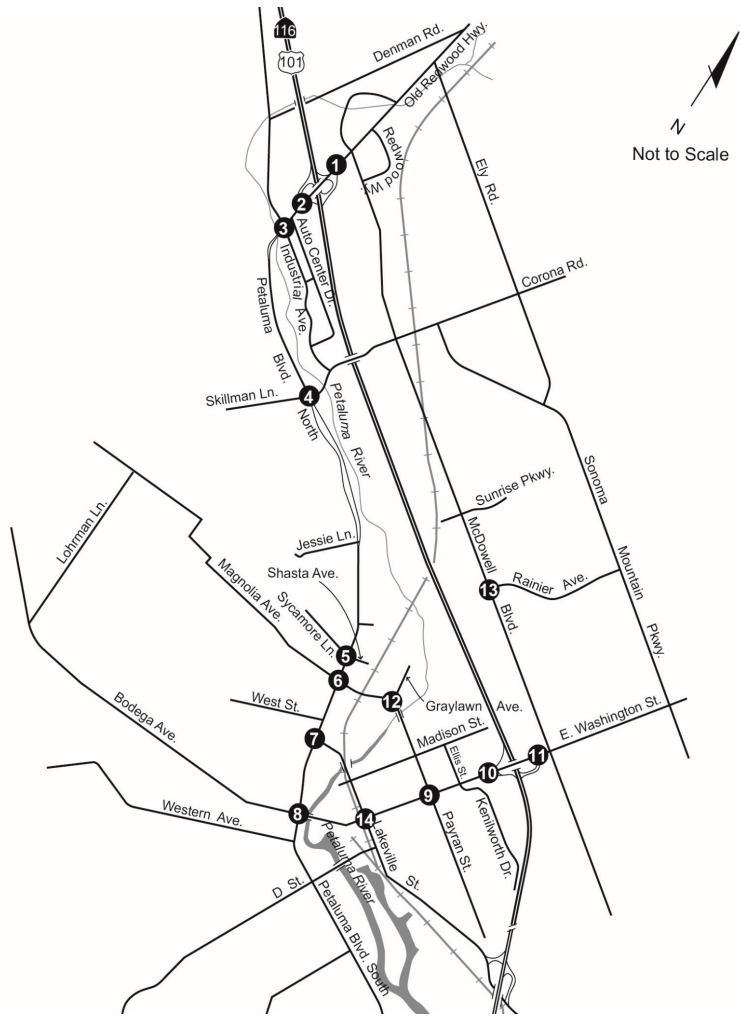


Figure 3-2
Revised Project Trip Assignments to Intersections



Existing plus Revised Project - Intersection Level of Service

Traffic generated by the Revised Project, when added to existing traffic conditions, would not cause a level of service (LOS) standard established by the City of Petaluma to be exceeded at any study area intersection. **(Less than Significant)**

The analysis presented in the Draft EIR concluded that, with the greater traffic generated by the original Project, all study area intersections would still operate at acceptable levels of service. No study area intersections that currently operate at LOS E or F, and no signalized intersections currently operating at acceptable LOS D or better under existing conditions, would have deteriorated to an unacceptable level LOS E or F when traffic generated by the original Project was added. Similarly, no unsignalized intersections currently operating at acceptable LOS D or better under existing conditions would have deteriorated to an unacceptable level LOS E or F when traffic generated by the original Project. Traffic volumes at unsignalized intersections would not have satisfied Caltrans peak-hour volume warrant criteria for traffic signal installation.

The Revised Project would generate approximately 45 fewer AM peak hour trips and 58 fewer PM peak hour trips than would the original Project. With less trips generated, the Revised Project would contribute less overall traffic to the roadway network, would have less substantial impacts at intersections throughout the City's roadway network, and would not result in any new or more severe impacts related to intersection level of service than was presented in the Draft EIR for the original Project.

Payran Street/Graylawn Avenue

The Draft EIR (page 14-70) also presented an analysis of a separate scenario assuming that all of the original Project's trips, including 143 trips during the AM peak period and 146 trips during the PM peak period, would be added to the intersection of Graylawn Avenue/Payran Street. The analysis concluded that this intersection would change from LOS B during both peak hours to still-acceptable LOS C during both peak hours if all traffic generated by the original Project were added at this intersection.

Based on more recent (2019) traffic counts conducted in the area (see Master Response to Comments on the Accuracy and Applicability of Traffic Counts), existing traffic at the Payran Street/Graylawn Avenue intersection has increased by approximately 53 percent as compared to traffic volumes presented in the Draft EIR. However, this increase in relative traffic volume has not significantly affected intersection operations, which remain at LOS B. Although existing traffic has increased, the Revised Project would contribute 65 fewer AM trips and 44 fewer PM trips than would have been contributed by the original Project under the scenario whereby all trips generated by the original Project would use Graylawn, only. Total trips at this intersection, including 2019 traffic and the Revised Project, would be 78 AM peak hour trips and 102 PM peak hour trips. With less total trips at this intersection than was assumed under the Graylawn only scenario as presented in the Draft EIR, the Revised Project would not increase traffic to an extent that would exceed an acceptable LOS C during either the AM or the PM peak hours at the Graylawn/Payran intersection.

Cumulative Plus Project - Intersection Level of Service

The addition of Project-generated traffic to the Cumulative scenario (without the Project) **would not** cause a cumulative level of service (LOS) standard established by the City of Petaluma to be exceeded at any study area intersections. **(Less than Significant)**

The Draft EIR identified two intersections that would operate at unacceptable LOS E or F conditions under the Cumulative without Project scenario: North McDowell Boulevard/Rainier Avenue (Intersection #13) and Petaluma Boulevard North/Shasta Avenue (Intersection #5). The Draft EIR concluded that traffic generated by the original Project would not cause a significant impact to North McDowell Boulevard/Rainier Avenue. The

Revised Project generates less traffic than the original Project, and therefore the conclusion of the Draft EIR for this intersection would not change.

A substantial increase in cumulative traffic is also expected at the existing intersection of Petaluma Boulevard North/Shasta Avenue due to the planned construction of the Shasta Collector Street to Rainier as set forth in the General Plan (this is not the same as the Shasta Avenue Extension as was proposed pursuant to the original Project). The Shasta Collector Street to Rainier would facilitate cumulative travel between McDowell Boulevard and Petaluma Boulevard North, increasing the number of vehicles and the congestion at this existing intersection to unacceptable LOS F conditions. The planned Shasta Collector Street extension is not a Project-related improvement, but rather is anticipated in the General Plan as part of the Rainier Cross-Town Connector. The Rainier Cross-Town Connector Draft EIR (URS Corporation, July 2014) recommended restriping the existing westbound approach to Petaluma Boulevard North/Sycamore Lane (Shasta Avenue) to provide an exclusive left-turn lane and a shared left/through/right-turn lane plus an exclusive northbound right-turn lane, and a median refuge (at least five feet wide) installed for pedestrians crossing Shasta Avenue at the Petaluma Boulevard intersection. That EIR found that these improvements would improve intersection operations to LOS C in the PM peak hour under Cumulative plus Project conditions. These improvements are required as mitigation measures for the Rainier Cross-Town Connector Project, and are not attributed to the Sid Commons project.

Whereas the original Project would have substantially increased cumulative traffic at this intersection with its proposed Shasta Avenue Extension and at-grade crossing, the Draft EIR Mitigation Measure Transp-3 indicated that, “if the at-grade crossing is approved, then the applicant shall make a fair share contribution towards the intersection improvement at Petaluma Boulevard/Shasta Avenue, in addition to applicable Traffic Impact Fees”. The Revised Project no longer proposes the Shasta Avenue Extension and will not directly contribute substantial additional traffic to the westbound approach to this intersection. The Revised Project will be subject to the City’s Traffic Impact Fees, which are collected to fund ongoing maintenance and planned improvements citywide, including the Rainier Crosstown Connector. Additional fair-share contributions to this General Plan improvement are not warranted under the Revised Project and Mitigation Measure Transp-1 is no longer applicable (see Chapter 7: Revisions to the Draft EIR).

Emergency Vehicle Access and Design Hazards

The Revised Project would **not** substantially increase roadway hazards and hazards for emergency vehicles accessing the Project site, as it would **not** include an at-grade rail crossing. (**Less than Significant**)

The Revised Project’s proposed vehicle access includes two driveway entries into the apartment complex via Graylawn Avenue, and does not include the original Project’s proposed Shasta Extension from west of the SMART rail tracks and over an at-grade crossing. The at-grade rail crossing was a design hazard of the original Project and is now removed pursuant to the Revised Project.

Like the original Project, the Revised Project also includes a proposed secondary means of emergency vehicle access (EVA) to the site at the existing approximately 32-foot wide frontage at the end of Bernice Court. As noted in the Draft EIR (page 14-67), “If no Shasta Avenue Extension across the rail tracks were provided, the Project would provide only one primary point of vehicle access (via Graylawn Avenue) with an emergency EVA access at Bernice Court. The Bernice Court frontage would be designed to provide an acceptable fire apparatus roadway meeting all turning radius and turnaround requirements of the Petaluma Fire Code and would meet emergency access requirements. Under this scenario, no roadway hazards or hazards for emergency vehicles accessing the Project site would occur, and the impact would be less than significant.” In 2019, the City Engineer and Fire Marshal reviewed this prior conclusion from the Draft EIR and accepted this

same determination for the Revised Project.³ In addition, the City Fire Marshal provided the following recommendation to be added to this EIR:

Recommendation Transp-7/Haz-7, EVA Design: To ensure that the Bernice Court EVA is continuously available for emergency use, the EVA connection at Bernice Court shall include design measures including, but not limited to bollards, red curb or red pavement striping, no-parking signage, etc., intended to prohibit parking and other obstructions at this EVA access. Final EVA design measures shall be subject to review and approval by the Fire Marshal.

The site is approximately 1.5 miles from the nearest fire station located on D Street at 2nd Street in downtown Petaluma, and emergency vehicles would be able to approach the Project site using multiple routes (Graylawn, Jess and the Bernice Court EVA).

Mitigation Measures

Emergency vehicle access to the site, including the Bernice Court EVA (with the design recommendations of the Fire Marshal), would be sufficient to meet Subdivision Map Act requirements and requirements of the Petaluma Fire Code requiring at least two points of access, and no significant access or design hazards would occur. This conclusion is substantially different that the conclusion reached in the Draft EIR for the original Project and its then-proposed at-grade rail crossing. The Revised Project eliminates the direct and immediate safety hazard that would have otherwise been introduced by the Shasta Extension and at-grade vehicle crossing of the SMART rail tracks. The Revised Project is consistent with CPUC recommendations against the creation of new at-grade rail crossings. Without the original Project's at-grade rail crossing, the Revised Project would not introduce a significant safety hazard to traveling motorists, emergency responders or the rail carriers, and no further mitigation measures (i.e., a grade-separated vehicle bridge or at-grade rail crossing safety improvements at Shasta) are warranted. Since the Revised Project no longer proposes the Shasta crossing, Mitigation Measure Transp-7A: Grade Separated Bridge and/or Mitigation Measure Transp-7B: At-Grade Rail Crossing Safety Measures, are no longer applicable or necessary to address increased roadway hazards.

Local Roadway Capacity

The Revised Project would **not** substantially increase traffic on an existing sub-standard street section.

All traffic generated by the Revised Project would have only one means of ingress and egress via Graylawn Avenue, with a portion of those trips also using the Graylawn-to-Jess alternative route to and from Payran. With the Revised Project's trips added to existing traffic, the expected combined average daily trips (ADT) on Graylawn would be approximately 2,510 vehicle trips per day, and the expected combined ADT on Jess would be approximately 642 vehicle trips per day (see additional discussion regarding Graylawn and Jess Avenue traffic in Master Responses to Comments on the Draft EIR). With this addition of traffic, residents living along Graylawn Avenue would notice a significant increase of more than twice the ADT that currently uses this street. Turning movements to and from Jess Avenue, Bernice Court, Cordelia Drive, Betty Court and the many driveways along Graylawn Avenue would experience additional delay. The Revised Project's traffic on Jess Avenue would have a less noticeable increase in ADT (approximately 50 percent more ADT than currently uses this street), and turning movements at Jess/Graylawn and the many driveways along Jess Avenue would experience some additional delay.

However, Jess Avenue and Graylawn Avenue are not sub-standard streets. Both streets have rights-of-way widths of at least 36 feet, both streets have one 10- to 12-foot wide travel lane in each direction, and both

³ Personal communication, Tiffany Robbe July 2019

streets have sidewalks on both sides. The projected increase in traffic on both Graylawn and Jess Avenues is not so high as to affect operations through these roadway corridors or at their adjoining side street intersections to a significant level (i.e., to a level that would necessitate changes in traffic controls based on CEQA LOS criteria). The stop sign-controlled intersection at Graylawn/Payran (which only stops Graylawn traffic) currently operates at LOS B during both peak hours, and would operate at acceptable LOS C or better during both peak hours with traffic generated by the Revised Project. The 4-way stop sign-controlled intersection at Jess/Payran has substantially lower side-street traffic volumes than Graylawn/Payran (but with similar volumes on Payran), and therefore would operate with less delay than Graylawn/Payran under conditions with and without the Revised Project. The addition of traffic from the Revised Project would not cause significant changes in vehicle operations for drivers along Graylawn Avenue, Jess Avenue or other adjoining side streets. The Revised Project would not result in a significant CEQA impact pertaining to local roadway capacity.

Street Design and Construction Standards

Pursuant to the City of Petaluma Department of Engineering's Street Design and Construction Standards & Specifications, local residential streets are intended to carry up to a maximum ADT of 2,000 trips, serving up to 200 dwellings.⁴ According to the City General Plan 2025 Mobility Report's Street Classifications diagram, both Graylawn and Jess Street are indicated as Residential Streets (i.e., are not classified as either Arterials, Collectors or Connector Streets), and Payran is designated as an Arterial.⁵

With the Revised Project's trips, traffic volumes on Graylawn would increase to 2,510 ADT, and traffic volumes on Jess Avenue would increase to 642 ADT. The Revised Project would cause the traffic volume standard for a local residential street as set forth in the Street Design and Construction Standards & Specifications to be exceeded on Graylawn Avenue, but not on Jess Avenue (see **Table 3-3**). These City Street Standards are not identified as CEQA thresholds for this EIR (nor have these standards been used as CEQA thresholds in other prior City of Petaluma EIRs), but they do provide a relative means of measuring the qualitative "livability" of local streets as related to increased traffic.

Table 3-3: Traffic Volumes versus Design Standards on Graylawn and Jess Avenue (ADT)

<u>Scenario:</u>	<u>Graylawn Avenue</u>	<u>Jess Avenue</u>
Existing ADT	1,142	419
Revised Project Contribution of ADT	1,368	223
Existing plus Revised Project ADT	2,510	642
Exceed Design Standard of 2,000 ADT? ¹	Yes	No

Notes: 1: Design Standard of 2,000 ADT is not used as a CEQA threshold in this EIR

Mitigation Measures

None required. Both Graylawn Avenue and Jess Avenue are standard street sections with adequate corridor capacity, and traffic generated by the Revised Project would not exceed a CEQA intersection LOS threshold.

⁴ City of Petaluma Department of Engineering, Street Design and Construction Standards & Specifications, Street Standards Design and Application Guidelines (page 3), May 1999

⁵ Petaluma General Plan 2025, Street Classifications, accessed at <http://cityofpetaluma.net/cdd/plan-general-plan.html>

Although not required as CEQA mitigation, the following traffic engineering recommendations are provided as information relevant to options for addressing conflicts with the City's 2,000 ADT design standard for Graylawn Avenue as a residential road:

Recommendation Transp-A, Reduce Revised Project Size to Fit Graylawn Capacity: If the Revised Project were to be reduced in size to approximately 108 residential units, it would produce approximately 858 daily trips, 52 AM peak hour trips, and 64 PM peak hour trips. This number of additional trips could be accommodated, in addition to the existing 1,142 daily trips currently on this roadway, such that the ADT would not exceed the City of Petaluma Department of Engineering's Street Standard Design.

Recommendation Transp-B, Introduce Traffic Calming and Enhance Livability along Graylawn Avenue: The Revised Project shall implement a Traffic Calming Plan, which may include bulb outs, street tree planting, pavement marking and other roadway livability improvements and traffic calming features to minimize conflicts with "livability" standards for local streets that exceed the 2,000 ADT design standard for this roadway. Prior to SPAR review at the Planning Commission, the applicant shall coordinate with City Public Works staff on the preferred Traffic Calming approach and design (anticipated to be similar in nature to Concept 3 as shown in the draft Traffic Calming Plan of Appendix A). The preferred Traffic Calming Plan shall be shown on the plan set for SPAR review. The Public Improvement Plan set for the Revised Project shall include the finalized Traffic Calming Plan.

This conclusion is different than was reached in the Draft EIR for several reasons. The Draft EIR assumed the original Project would add new cars to the sub-standard section of Shasta Avenue on the opposite side of the SMART tracks. Since the Revised Project does not include the Shasta Extension, no trips from the Revised Project would contribute to the sub-standard street segment on the west side of the rail tracks, the impact would not occur and mitigation for improvements to Shasta Avenue as presented in the Draft EIR (Mitigation Measure Transp-8) is not warranted.

The Draft EIR provided information regarding the number of additional trips expected to use Graylawn Avenue, assuming the Shasta Extension and rail crossing would be constructed. That number was determined to be approximately 676 vehicle trips. When added to the previous count of 954 ADTs on Graylawn Avenue, the total ADT on Graylawn were calculated to be 1,630 ADTs, which could have been accommodated within the 2,000 ADT design standard, and the original Project was found to not cause an exceedance of the City's design standard. The Draft EIR also presented an additional scenario whereby the Shasta Extension and rail crossing would not occur, and all traffic generated by the original Project would rely on Graylawn (only) for ingress and egress. That scenario indicated that if all 1,808 ADT from the original Project were added to the previous count of 964 ADT on Graylawn, it would result in 2,762 vehicle trips per day, thereby exceeding the design standard for this road. With fewer units (and a component of trips also assumed to use Jess Avenue), the Revised Project would generate fewer trips on Graylawn than was presented in the Draft EIR pursuant to this scenario.

Pedestrian and Bicycle Circulation

The Revised Project would create an inconsistency with adopted bicycle and pedestrian system plans, guidelines, policies and standards of the City of Petaluma. **(Less than Significant)**

Like the original Project, the Revised Project does include elements of a comprehensive pedestrian and bicycle circulation system that are consistent with the City of Petaluma's General Plan 2025 Mobility Report recommendations:

- A new sidewalk would be constructed along the Revised Project's frontage of Graylawn Avenue that would continue into the site. This would enhance pedestrian connectivity between the site and Graylawn Avenue and Payran Street, and provide enhanced access to local schools and shopping

centers. The Revised Project includes a landscape strip between the sidewalk and the street, as City Standards direct.

- The Revised Project also includes construction of a Class I multi-use bicycle/pedestrian path along its frontage of the Petaluma River, from the existing path's terminus at the Oak Creek Apartments to the northwesterly site boundary near the east side of the SMART rail tracks.

Walking Distance and Crossing Safety at Payran

Pursuant to the General Plan 2025 Mobility Report's goals and policies, walking distances greater than one-quarter mile (approximately a five to 10-minute walk) from a residential neighborhood to a retail center or transit stop is undesirable.⁶ The walk from the site to the nearest retail and transit facilities (which are along Petaluma Boulevard North) would be approximately one-half mile via Graylawn Avenue and Payran Street, exceeding the one-quarter mile transit accessibility standard for transit riders. Furthermore, this route would require pedestrians and bicyclists from the Revised Project to cross the existing rail tracks at Payran Street. At the time the Draft EIR was published, the crossing at Payran/SMART Rail was an at-grade crossing that had been improved to minimal safety and ADA standards, with sidewalks and crosswalk striping on both sides of the street (see **Figure 3-3**). In September of 2019, this crossing was further upgraded by SMART as part of their Payran Street Rail Crossing project, and enhancements now include two 4- to 6-foot wide low fence barriers at each sidewalk approach, curb barriers, yellow rumble strips in the sidewalk, and yellow "Watch for Train" diamonds stenciled on the sidewalk (see also Figure 3-3). While pedestrians would still have to walk beyond a typically desirable walking distance to or from retail or transit services, and the Revised Project would increase pedestrian and/or bicycle usage at the existing Payran crossing, the improvement work envisioned by Mitigation Measure Transp-9C was completed by SMART in September 2019, and no further mitigation is necessary.

Mitigation Measures

The Draft EIR included an analysis of a scenario where neither an elevated bridge nor an at-grade crossing occurred, and all pedestrian and bicycle trips to and from transit or nearby retail facilities occurred at the existing Payran rail crossing. Mitigation Measure Transp-9C was recommended to provide residents with safe and effective pedestrian and bicycle access to retail and transit facilities. Those improvements that would have been required pursuant to Mitigation Measure Transp-9C have already been made by SMART, and this measure is no longer required of the Revised Project:

The pedestrian and bicycle improvements that have been made at the Payran Street rail crossing would compensate for inconsistencies with adopted pedestrian or bicycle system plans and safety standards of the City's 2025 Mobility Report, and have reduced potential pedestrian and bicycle safety impacts of the Revised Project to a less than significant level. This conclusion is substantially different from the conclusions reached in the Draft EIR related to pedestrian and bicycle hazards associated with the Shasta at-grade crossing. Since the Revised Project no longer proposes the Shasta crossing, Mitigation Measure Transp-9A: Grade Separated Bridge and/or Mitigation Measure Transp-9B: At-Grade Rail Crossing Safety Measures, are also no longer applicable or necessary to address unsafe pedestrian and bicycle access (see Chapter 7: Revisions to the Draft EIR).

6



Prior Payran Street Crossing Improvements, at the time of publication of Draft EIR



Current Payran Street Crossing Improvements, as of September 2019

Figure 3-3
Crossing Improvements at the Payran Street/
SMART Rail Crossing



Hazardous Conditions – Rail Crossing

The Revised Project **does not** result in increased hazards associated with an at-grade rail crossing at a potentially unsafe location. **(Less than Significant)**

Unlike the original Project, the Revised Project does not propose construction of a new Shasta Avenue at-grade crossing of the SMART railroad right-of-way. If constructed as proposed pursuant to the original Project, such a crossing would have been a safety hazard for new residents, for others who may have chosen to drive across the new at-grade crossing, and for railroad operations due to the increased possibility of train collisions and train-related accidents.

This conclusion is substantially different than the conclusion reached in the Draft EIR for the original Project and its then-proposed at-grade rail crossing. The Revised Project eliminates the hazardous condition that would have otherwise been introduced by the Shasta Avenue at-grade crossing of the SMART rail tracks. The Revised Project is consistent with CPUC recommendations against the creation of new at-grade rail crossings. Without the original Project's at-grade rail crossing, the Revised Project would not introduce a significant safety hazard to traveling motorists, emergency responders or the rail carriers, and mitigation measures (i.e., a grade-separated vehicle bridge or at-grade rail crossing safety improvements as recommended pursuant to Mitigation Measures Transp-7A and -7B) are not warranted (see Chapter 7: Revisions to the Draft EIR).

Emergency Access

The Revised Project **does** provide adequate emergency access to the future residential development site. **(Less than Significant)**

The Draft EIR recognized that the original Project's Shasta Avenue Extension and at-grade rail crossing may prove to be infeasible, and included an analysis of emergency access without the Shasta Avenue Extension. Like the Revised Project, that analysis in the Draft EIR assumed access to the Project site would be limited to Graylawn Avenue and the Bernice Court EVA. Pursuant to the Petaluma Fire Code, Chapter 17.20, Section D107.1, "developments of one- and two-family dwellings, where the number of dwelling units exceeds fifty (50), shall be provided with two (2) separate and approved fire apparatus access roads." In 2014, the Petaluma City Engineer and Fire Marshal reviewed the proposed Bernice Court EVA route and found that, even with Graylawn as the only primary access route, the Bernice Court EVA provided an acceptable second emergency vehicle access road to serve the Project, but also indicated that two points of public roadway connections would be preferable.⁷ Similar to the Draft EIR conclusion with Graylawn as the only primary access route, the current Fire Marshal has reviewed the Revised Project's Bernice Court EVA and has accepted the prior 2014 determination that the Bernice Court EVA would provide emergency vehicle access to serve the Project, but indicated that two points of public roadway connections would be preferable to meet current policies and industry best practices. In addition, the City Fire Marshal provided the following recommendation to be added to this EIR:

Recommendation Transp-7/Haz-7, EVA Design: To ensure that the Bernice Court EVA is continuously available for emergency use, the EVA connection at Bernice Court shall include design measures including, but not limited to bollards, red curb or red pavement striping, no-parking signage, etc., intended to prohibit parking and other obstructions at this EVA access. Final EVA design measures shall be subject to review and approval by the Fire Marshal.

⁷ Personal communication between Tiffany Robbe (City Planner), City Engineer and Fire Marshal, October 2014. In 2019, the City Engineer and Fire Marshal reviewed the prior communication, accepted the previous determination, and recommended Recommendation Haz-7, EVA Design.

Impacts related to emergency access would be less than significant. This conclusion is different than the conclusion reached in the Draft EIR for the original Project and its then-proposed at-grade rail crossing. The Petaluma Fire Department's prior finding that access via an at-grade rail crossing would have a higher likelihood of blocking emergency vehicle access than does a typical street no longer applies to the Revised Project. Without the original Project's at-grade rail crossing, the Revised Project would not introduce a significant hazard related to emergency access and Mitigation Measure Transp-9A: Grade Separated Bridge and/or Mitigation Measure Transp-9B: At-Grade Rail Crossing Safety Measures are no longer applicable or necessary to address emergency access (see Chapter 7: Revisions to the Draft EIR).

Similar Environmental Conclusions

Whereas the Revised Project is still an apartment development with more than 200 units and is to be located on the same site, many of the environmental implications of the Revised Project are similar to those of the original Project. Those impacts of the Revised Project similar to impacts of the original Project and mitigation measures that remain applicable to the Revised Project are summarized below.

Aesthetics

Scenic Vistas

The Draft EIR concluded that the original Project would not have a substantial adverse effect on a scenic vista, or on views of significant landscape features or landforms as seen from public viewing areas. The site is not located within the foreground of, nor would it obstruct long-range views or vistas on community views of hillsides and ridgelines from any of the View Platforms identified in the Petaluma IZO section 16.040.Q. Although the site can be seen from numerous other publicly accessible vantage points, views across the site from these locations are not formally identified scenic vista. **(Less than Significant)**

Visual Character

Similar to the original Project, the Revised Project could potentially degrade the existing visual character or quality of the site and its surroundings due to the removal of mature trees and conflict with the River Plan. **(Less than Significant with Mitigation)**

There is nothing inherently degrading to visual character about the development of new residential uses on this site. The property is adjacent to existing multi-family residential development at the Oak Creek Apartments and is located in an area of primarily residential uses. The site is recognized in the General Plan as appropriate for development of a diverse range of residential densities and may be a location where infill development at equal or higher density than surrounding uses may be appropriate, when coupled with an enhanced River corridor and tree protection. Like the original Project, the Revised Project will substantially change the visual qualities and characteristics of the site. However, the introduction of a medium density multi-family residential land use at 2-stories in height (or stepping up to 3-stories where not abutting neighboring residents) is generally consistent with the visual character of the adjacent Oak Creek Apartments. Where the Project abuts the single-family (and generally single-story) homes along Graylawn Avenue and Bernice Court, the conceptual site plan maintains a distance of at least 60 feet between existing residences and the proposed new apartments, and a setback of at least 25 feet from shared property lines. Pursuant to Section 24.010 of the IZO, architectural and site plan review will take place prior to the issuance of any building permits. At that time, the precise massing and architectural design will be reviewed against required setbacks, height limitations, site coverage and other development standards. These standards, as reviewed pursuant to the SPAR process, will ensure that the proposed development is attractive and consistent with existing development in the vicinity.

To accommodate flood terracing, the Revised Project will (like the original Project), result in removal of vegetation from the western Petaluma Riverbank. However, the Revised Project maintains all protected trees within the River Corridor including oaks, box elder, and an area of high value willows and the Revised Project's HMMP will result in restoration and expansion of this riparian corridor.

As indicated in the Draft EIR, implementation of the following mitigation measures (which are applicable to the Revised Project) will reduce potential impacts to the visual character and quality of the site to less than significant levels:

Mitigation Measure Visual-3A, Inclusion in SPAR: The Site Plan and Architectural Review process shall include evaluation and review of the Revised Project's plans to accommodate significant trees, provide adequate setbacks and/or landscaping, create linear open space corridors, and potentially utilize a single-loaded street near the River corridor as means to ensure maximum public accessibility and visibility.

Mitigation Measure Visual-3B, RODZ review at SPAR: The Site Plan and Architectural Review process shall include evaluation and review of the Revised Project for consistency with River Oriented Development Zone (RODZ) policies and design guidelines (from River Plan pages 79-80, and Chapter 9: Design Guidelines.) The northern portion of the site that is within the RODZ (APN -009) shall be designed pursuant to the RODZ Guidelines.

Mitigation Measure Visual-3C, Ensuring Preservation of Existing Trees: Preservation of all existing trees on the Project site may conflict with reasonable land development considerations and with creation of the terraced grading as directed by the General Plan. However, the final design for the residential portions of the site should be designed to reflect the goal of preserving protected trees to the greatest extent possible. The final design of the Project, to be reviewed at SPAR, shall seek to preserve the most desirable and significant healthy trees on site.

With implementation of these mitigation measures, the Revised Project would comply with City of Petaluma plans, policies and ordinances pertaining to aesthetics and design, and the impact would be reduced to a level of less than significant.

Light and Glare

New development at the site will create new sources of light and glare that could adversely affect day or nighttime views, or that could be considered a nuisance pursuant to the definitions established under the City's IZO. (**Less than Significant with Mitigation**)

In order to ensure compliance with regulatory requirements for glare as found in Section 21.010 of the IZO, the Draft EIR recommended the following mitigation measure, equally applicable to the Revised Project:

Mitigation Measure Visual-4, Glare Minimization Design Standards: Measures (such as fixtures that cast light in a downward direction, lighting designed to minimize glare and direct views of light sources, lighting that does not blink, flash or of unusually high intensity, etc.) shall be applied to reduce light and glare at the site.

With implementation of this mitigation measure, the amount of light and glare emanating from the site would be reduced to less than significant levels.

Air Quality

Conflict with Air Quality Plan

Like the original Project, the Revised Project would not conflict with or obstruct implementation of the applicable air quality plan. The Revised Project will not impede implementation of air quality control measures, will have no impact related to an inconsistency with the Clean Air Plan and is consistent with development assumptions as included in the 2017 Clean Air Plan. **(No Impact)**

Construction Period PM10 Emissions

Similar to the original Project, the Revised Project could result in air quality impacts related to construction-period fugitive dust (PM10), but these impacts would be reduced with implementation of required mitigation measures as recommended by the BAAQMD. Although construction activities associated with site preparation, grading (including the terraced grading plan along the riverbank), building construction, landscape installation and site paving would be temporary, these construction activities have the potential to cause both nuisance and health-related air quality impacts. As indicated in the Draft EIR, implementation of the following mitigation measures (which are applicable to the Revised Project) will reduce potential construction-period dust impacts:

Mitigation Measure AQ-2A, Basic Dust Control: The Project shall comply with “Basic” mitigation measures as recommended by BAAQMD for reducing construction related emissions.

Mitigation Measure AQ-2B, Enhanced Dust Control: Because of the size of the site and the proximity of nearby sensitive receptors, the Revised Project shall also comply with “Enhanced” mitigation measures as recommended by BAAQMD for reducing construction related emissions.

With implementation of MM AQ-2A and -2B, potential impacts to air quality from construction-period fugitive dust emissions would be reduced to levels below significance. **(Less than Significant with Mitigation)**

Criteria Pollutant Emissions from Construction Activities

Construction of the Revised Project would generate slightly less emissions of criteria air pollutants (ROG, NOx, PM10, and PM2.5) and evaporative emissions (ROG) than the original Project due to its smaller size, and like the original Project, these emission levels would not exceed applicable air quality thresholds. At 205 units, the Revised Project is below BAAQMD’s screening size for a mid-rise apartment project (240 units) and therefore will have less than significant construction-period criteria pollutant emissions. **(Less than Significant)**

Construction-Period Toxic Air Contaminant Emissions

Use of heavy-duty, off-road and on-road construction equipment could produce emissions of toxic air contaminants (including diesel PM2.5) and, like the original Project, emissions from these construction activities could exceed thresholds for off-site community risk and hazards. To address the potentially significant construction-period health risk impacts associated with emissions of toxic air contaminants, the following mitigation measure from the Draft EIR, which are also applicable to the Revised Project, shall be implemented.

Mitigation AQ-4, Construction-Period DPM Emission Reductions: All off-road construction equipment greater than 25 horsepower shall have engines that meet or exceed either U.S. Environmental Protection Agency (USEPA) or California Air Resources Board (ARB) Tier 4 Final off-road emission standards. The Contractor may use the next cleanest piece of off-road equipment (i.e., Tier 3 Engine with Level 3 Verified Diesel Emission Control Strategy [VDECS], Tier 3 Engine with Level 2 VDECS or Tier 3 Engine with alternative fuel) under certain circumstances.

Use of Tier 4 off-road construction equipment engines can reduce tailpipe emissions of particulate matter (including PM2.5, or DPM) by as much as 95 to 97 percent over tailpipe emission levels from non-regulated engines. A 96% reduction in construction-period emissions would equate to a comparable 96% reduction in annual average DPM concentrations, and a similar 96% reduction in lifetime excess cancer risk, Chronic Health Index, and annual average PM2.5 concentrations. Implementation of the control measures identified in MM AQ-4 would reduce diesel particulate matter emissions such that health risk impacts related to construction activities would be reduced to a less than significant level. **(Less than Significant with Mitigation)**

Operational Air Quality Emissions

Operation of the Revised Project will result in new emissions, primarily associated with new vehicle trips. However, analysis included in the Draft EIR showed that the original Project would not generate new operational emissions that would violate air quality standards, contribute substantially to an existing or projected air quality violation or otherwise exceed established thresholds. Compared to the original Project, the Revised Project would have fewer residential units and would generate fewer vehicle trips. Therefore, the Revised Project would similarly not generate new operational emissions that would violate air quality standards, contribute substantially to an existing or projected air quality violation or otherwise exceed established thresholds. **(Less than Significant)**

Odors

As concluded in the Draft EIR, routine activity associated with residential uses at the site pursuant to the revised Project would not generate offensive odors that would affect substantial number of people, and this impact would be less than significant. **(Less than Significant)**

Biological Resources

Special Status Plant Species

As indicated in the Draft EIR, special status plant species were determined to have either low potential for being present, or were determined to be not present at the Project site. As concluded for the original project, the Revised Project would not result in a substantial adverse effect on candidate, sensitive or special-status plant species, either directly or through habitat modification. **(Less than Significant)**

Special Status Bird and Bat Species

The Draft EIR concluded that grading and construction activities on the site had the potential to affect special status bird species, possibly including White-Tailed Kite, Allen's Hummingbird, Loggerhead Shrike, salt marsh common yellowthroat, several raptor species and potential suitable roosting habitat for some bat species such as the pallid bat. To address the potential for grading and construction activities to affect special status bird species, the following mitigation measures, which are also applicable to the Revised Project, were recommended:

Mitigation Measure Bio-2a, Pre-Construction Nesting Surveys: If grading operations or construction is scheduled during the nesting season of migratory birds (February 1 through August 30), trees in the Project site shall be surveyed, including call surveys as appropriate for nesting migratory birds.

Mitigation Measure Bio-2b, Pre-Construction Tree Roost Surveys: For all tree removal and vegetation management activities, measures shall be implemented to protect bats.

The required nesting surveys and protection of any identified nests or roost as required pursuant to MM Bio-2a and 2b would prevent harm to special status bird and bat species, and would prevent harm to common types of birds. **(Less than Significant with Mitigation)**

Special Status Reptile, Amphibian and Fish Species

The Draft EIR concluded that grading and construction activities associated with the original Project's terraced grading plan along the banks of the River, including trimming and clearing of vegetation along the bank, could result in the removal of habitat for California red-legged frog and Western pond turtle, and degradation of special status fisheries habitat. As with similar terraced grading pursuant to the Revised Project, the applicant shall obtain all required authorizations from the U.S. Army Corps, the RWQCB, the California Department of Fish and Wildlife, and other regulatory agencies with jurisdiction for the disturbance of waters of the U.S. and their associated aquatic habitat. The applicant shall also implement the following mitigation measures, in addition to all avoidance and minimization measures as required by the resource agency authorizations:

Mitigation Measure Bio-3A, Limitations on the Grading Period: To the extent feasible, limit grading in the river area to the dry season, between June 15 and October 15, when low flow conditions are present in the River. Limit vegetation removal to the period between June 15 and November 15 to avoid potential impacts to anadromous fish species and nesting birds, and to avoid interfering with adult spawning migrations or the outmigration of smolts.

Mitigation Measure Bio-3B, Pre-Construction Surveys: A qualified USFWS-approved biologist shall conduct pre-construction surveys of all ground disturbance areas within suitable habitats in the Project site to determine if California red-legged frogs and Western pond turtles are present prior to the start of grading operations.

Mitigation Measure Bio-3C, Relocation: If any special status species are found, they shall be relocated or an exclusion zone shall be established and maintained around the occupied habitat until the biological monitor, in consultation with the resource agencies, determines construction activities can proceed in these zones.

Mitigation Measure Bio-3D, Implement Best Management Practices: Avoidance and minimization measures shall be employed prior to and during construction, as required and/or approved by the resource agencies, to protect special status species and sensitive habitats.

Implementation of the above mitigation measures would reduce potential impacts of the Revised Project on special status species and sensitive habitats, and that with a reconstructed River terrace and implementation of the HMMP complete, habitat for these species will be restored and possibly increased. **(Less than Significant with Mitigation)**

Seasonal Wetlands

The Draft EIR determined that development of the original Project would have resulted in the direct removal and fill of approximately 0.34 acres of seasonal wetlands defined by the US Army Corps of Engineers as jurisdictional wetlands under Section 404 of the Clean Water Act. A recent (January 2019) determination confirmed these jurisdictional wetland locations and extent.⁸ These wetlands are also considered Waters of

⁸ Department of the Army San Francisco District, U.S. Army Corps of Engineers Regulatory Division, Subject: File Number 2004-255710, letter to Mr. Doug Spicher, Wetland Research Associates, dated January 30, 2019

the State and regulated by the Regional Water Quality Control Board, San Francisco District (RWQCB) under CWA Section 401 and/or Porter-Cologne Act.

Seasonal wetlands on the site were found to include eight depressions and swales totaling 0.62 acres. This includes a deeper seasonal wetland of 0.28 acres near the Oak Creek Apartments and just above the river, six small isolated seasonal wetlands comprising 0.33 acres that are isolated from the river and above the 100-year flood elevation and located on the Project site's westerly side near the SMART rail line, and one small 0.01-acre wetland along the riverbank. Like the original Project, the Revised Project will involve construction work in two areas; the Petaluma River terraced grading, and the residential development on the uplands. Work in the upland development area will result in fill of the 0.33 acres of six separate small seasonal wetlands near the SMART rail corridor, and terraced grading will result in fill of the small 0.01-acre wetland lowest along the riverbank – or a total of 0.34 acres of filled wetlands. The largest seasonal wetland (approximately 0.28 acres in size) located just outside of the upper bank of the River (near the Oak Creek Apartments) will be avoided and preserved.

Like the original Project, the Revised Project's HMMP proposes creation of new perennial and seasonal wetland habitat as mitigation for impacts to wetlands by augmenting habitat value and increasing habitat complexity along the River. Terraced grading along the River edge includes construction of two new seasonal wetlands with appropriate wetland hydrology and native wetland plant establishment, and creates approximately 0.47 acres of seasonal wetland habitat. These newly created wetlands are approximately 0.07 acres less than the 0.54 acres that was proposed pursuant to the original Project. The slightly smaller size of newly created wetlands is the result of efforts pursuant to the Revised Project to retain existing oak trees rather than creating additional wetlands in these areas. The 0.47 acres of created wetlands will still replace and/or exceed the functions and values of the approximately 0.34 acres of seasonal wetland that will be filled as a result of the Revised Project. As indicated in the Draft EIR, the applicant will be required to obtain all required authorizations from the US Army Corps and RWQCB (as applicable) for the loss or disturbance of on-site seasonal wetlands resulting from development of the property. The applicant shall also implement the following mitigation measures, in addition to all permit requirements as may be established by resource agency authorizations, which may be further clarified or expanded upon through the Corps and RWQCB permitting process:

Mitigation Measure Bio-4, Compensation for Seasonal Wetlands Fill: The Project applicant shall provide on-site compensatory mitigation sufficient to achieve a no-net-loss standard, subject to additional requirements of the permitting agencies. Compensatory mitigation shall be achieved through creation, restoration and enhancement of wetland habitat acreage at appropriate locations within the Project site. The newly created, restored or enhanced wetlands shall provide higher quality wetlands habitat value than the low value habitat lost as a result of Project fill and terrace grading.

- a) Final site plans should seek to avoid and retain wetland features where feasible.
- b) Compensatory wetland habitat shall ensure no net loss of habitat functions and values.
- c) Compensatory ratios shall be based on site-specific information and determined through coordination with the Corps and RWQCB.
- d) A Restoration and Monitoring plan for the compensatory wetlands shall be developed and implemented by the applicant. The Restoration and Monitoring Plan shall describe how the new wetlands shall be created and monitored over a minimum establishment period of five years.

With implementation of the identified mitigation measure, the City will ensure that wetland mitigation fully compensates for the loss of wetland acreage and wetland habitat values resulting from the Project, such that there is no net loss of wetland acreage and values. The mitigation measure identified above is the City of Petaluma's baseline mitigation requirements (as lead agency). Subsequent permit requirements may result in

different (potentially greater) mitigation obligations, particularly regarding compensatory mitigation ratios, which shall be based on site-specific information and determined through coordination with the Corps and RWQCB. **(Less than Significant with Mitigation)**

Riparian Habitat

Similar to the original Project, the Revised Project's proposed terraced grading plan for the banks of the Petaluma River would result in adverse effects on riparian habitat. Riparian scrub vegetation occurs along the Petaluma River and extends approximately 50 to 100 feet out from the center of the River channel onto the adjacent floodplain, covering approximately 1.92 acres of the site. The vegetation consists primarily of thickets of willow, blackberry and teasel. The functions and values of these riparian scrub habitats along the River range from low to high. As habitat value, the patches of non-native Himalayan blackberry rate low because they are generally homogeneous stands and nearly impenetrable to most species of wildlife, whereas willows and other native vegetation have a high rating for wildlife habitat value.

Grading for the proposed river terraces will entail removal of existing Himalayan blackberry, followed by bank grading and re-contouring to achieve a floodway and floodplain terrace adequate to attenuate flood flows. Like the original Project, the Revised Project's river terracing will remove approximately 1.62 acres of riparian habitat (most of which is considered lower quality non-native Himalayan blackberry vegetation) but approximately 0.30 acres of higher quality native riparian vegetation along the River would be avoided, where practical, without severely diminishing the hydraulic flood flow capacity of the terracing project. Like the original Project, the Revised Project would implement a HMMP that will include preservation of existing highest value habitat along the river, removal of invasive monocultures of Himalayan blackberry patches, creation and restoration of riparian habitat and revegetation of the graded and re-contoured terrace area with native riparian vegetation. Following grading activities, approximately 2.08 acres of graded terraces will be replanted with riparian trees and shrubs, and an additional area of 0.71 acres along the River will be planted with marsh/wetland plants, for a total of 2.79 acres of replanted riparian habitat. With the 0.30 acres of avoided high quality riparian habitat, the result of on-site riparian habitat preservation and restoration will be 3.09 acres.

The Project applicant will be required to obtain all required authorizations from the CDFW (as applicable) for the loss or disturbance of on-site riparian vegetation resulting from development of the property. Any substantial change or use of any material from the bed, channel or bank of the River, or any change that may substantially adversely affect existing fish or wildlife resources will require CDFW issuance of a Streambed Alteration Agreement pursuant to Fish and Game Code 1602. The applicant shall also implement the following mitigation measures, in addition to all permit requirements as may be established by resource agency authorizations:

Mitigation Measure Bio-5A, Riparian Preservation Zone: Final grading plans for the Project's proposed terraced grading concept along the Petaluma River shall show a Riparian (Willow) Preservation Zone of a minimum of 0.30 acres in size, where the preservation of existing high-quality riparian vegetation shall be achieved, while still accommodating an overall widened channel design that provides acceptable flood control containment. As the River Plan calls for all development (including grading and flood control alterations) to be severely restricted within the high priority Riparian Preservation Zone, all development, including trails, grading and flood control alterations, shall be prohibited in this Zone. (Minimal intrusions in a carefully selected location could be authorized by the City for interpretive purposes only).

Mitigation Measure Bio-5B, Riparian Tree Preservation: Special measures (such as temporary fencing) to protect riparian and oak woodland trees within and abutting the riparian zone shall be required for river terracing and riverside path construction.

Mitigation Measure Bio-5C, Habitat Mitigation and Monitoring Plan: A final Habitat Mitigation and Monitoring Plan (HMMP) shall be submitted for review and approval by the regulatory agencies and the City. The City shall authorize the HMMP prior to issuance of the terrace grading plans. The Final HMMP shall be implemented.

With implementation of the required mitigation measures above, the City will ensure the preservation of the maximum extent of riparian habitat while balancing the need for expanded floodway capacity within the Petaluma River. Assuming that necessary permits and approvals are obtained, and their requirements are incorporated as components of (or conditions of) approval for grading permits, potential impacts on riparian habitat would be reduced to a level of less than significant. **(Less than Significant with Mitigation)**

Waters of the US

The wetlands delineation as recently verified by the Corps of Engineers in January 2019,⁹ identifies 0.92 acres of non-wetland waters regulated under Section 10 of the Rivers and Harbors Act (mapped in the Draft EIR at Figure 6-3). These non-wetland waters are also considered Waters of the State and regulated by the Regional Water Quality Control Board, San Francisco District (RWQCB) under CWA Section 401 and/or Porter-Cologne Act. Like the original Project, the Revised Project's proposed terraced grading plan is designed to avoid direct disturbance to river waters habitat. Construction activities will be confined to above the ordinary high-water mark. However, as indicated in the Draft EIR, terraced grading activity within the Petaluma River floodway could result in the disturbance of these jurisdictional non-wetland waters. These areas could be indirectly affected through hydrological interruption, alteration of bed and bank, increased sedimentation, and other construction-related activities.

As per the original Project, the Revised Project's HMMP proposes to increase the extent of aquatic habitat in the Petaluma River by grading and re-contouring the western bank of the River and creating new floodplain terraces. The applicant will be required to obtain all necessary authorizations from the U.S. Army Corps, the RWQCB, the California Department of Fish and Wildlife, and other regulatory agencies with jurisdiction (as applicable) for the disturbance of waters of the U.S. and their associated aquatic habitat. The following additional mitigation measure as recommended in the Draft EIR and equally applicable to the Revised Project would further reduce and/or avoid indirect effect to aquatic habitat during construction:

Mitigation Measure Bio-6, Terraced Grading Erosion Control/Stormwater Pollution Prevention

Plan: The Project applicant shall prepare and implement a specific Terraced Grading Erosion Control Plan for all terrace grading work and trail construction within and abutting the Petaluma River floodplain. The discharge or creation of potential discharge of any soil material including silts, clay, sand, or any other materials to the waters of the State is prohibited.

With implementation of the mitigation measure above, the City will minimize potential adverse effects to aquatic habitat within the Petaluma River associated with proposed grading along the riverbanks. The mitigation measures identified above are the City of Petaluma's baseline mitigation requirements (as lead agency). Subsequent permit requirements may result in different (potentially greater) mitigation obligations based on site-specific information and determined through agency coordination. Potential impacts on aquatic non-wetland habitat would be reduced to a level of less than significant. **(Less than Significant with Mitigation)**

Native Resident or Migratory Wildlife Corridor

As identified in the Draft EIR, the increased presence of people as well as outdoor lighting associated with new development may adversely affect the behavior of nocturnal animals using the River's riparian corridor

⁹ Ibid, January 2019

for cover or foraging. Grading of the floodway terrace and trimming and clearing vegetation next to and within the River may temporarily hinder the migration of aquatic and riparian wildlife species. The following mitigation measures are recommended to reduce and avoid substantial interference with wildlife movement within the Petaluma River corridor. The following mitigation measures as recommended in the Draft EIR are equally applicable to the Revised Project:

Mitigation Measure Bio-7A, Hooding or Shielding of Outdoor Lighting Fixtures: All outdoor lighting including any lighting along the river trail shall be focused and directed to the specific location intended (e.g., walkways, sidewalks, paths). Such fixtures shall be hooded or shielded to avoid the production of glare, minimize up-lighting and light spill. All light fixtures shall be located, aimed, or shielded to minimize spill-light into the riparian corridor and associated trees; this shall be demonstrated as a component of SPAR review. (The River Plan Design Guidelines states that some portions of the river trail may be lit.)

Mitigation Measure Bio-7B, Pre-Construction Surveys (see Mitigation Measure Bio-1A)

Mitigation Measure Bio-7C, Avoidance and Minimization (see Mitigation Measure Bio-3)

Implementation of Mitigation Measure Bio-7A would reduce the environmental impacts of nighttime lighting on native riparian habitat to a level of less than significant. The City will not issue grading permits for work within the Riverbanks prior to the applicant obtaining all necessary resource agency permits and approvals, including the incorporation of all subsequent conditions and requirements of these agency approvals into the proposed grading plans. With the incorporation of all necessary permit and approval requirements incorporated as components of, or conditions of approval for grading permits, potential impacts on aquatic and riparian wildlife corridors would be reduced to a level of less than significant. **(Less than Significant with Mitigation)**

Habitat Conservation Plans

There are no Habitat Conservation Plans, Natural Community Conservation Plans or other habitat conservation plans approved by local, regional or state agencies that apply to the site. Therefore, the Revised Project would have no impact with the provisions of such plans. **(No Impact)**

Invasive Species

New landscaping associated with development adjacent to the Petaluma River corridor could introduce invasive plant species with low habitat value to the riparian corridor, posing an increased threat to native riparian habitats. Invasion by exotic species can severely degrade the value of riparian areas for wildlife. The following mitigation measures as recommended in the Draft EIR are equally applicable to the Revised Project:

Mitigation Measure Bio-9, Incorporation of Native Plants in Landscaping Plans: As part of the Site Plan and Architectural Review process, the applicant shall submit a Landscape Plan for review and approval by the City. The Landscape Plan shall incorporate planting of native trees and ground cover plants consistent with the goals and objectives for this reach of the River as described in the River Plan.

Implementation of the detailed Landscape Plan pursuant to this mitigation measure will reduce potential impacts due to the introduction of non-native species to less than significant levels. **(Less than Significant with Mitigation)**

Spreading Sudden Oak Death

Native oaks have been dying in Sonoma County due to the disease known as sudden oak death, caused by the pathogen *Phytophthora ramorum*, a fungus associated with wet or moist climates, cool temperatures and living plants. Removal of plant materials that may host *Phytophthora ramorum* during tree removal could result in the spread of Sudden Oak Death to the Petaluma River riparian habitat. The following mitigation measures as recommended in the Draft EIR are equally applicable to the Revised Project:

Mitigation Measure Bio-12A, Infected Tree Identification: Pursuant to the City's tree removal permits, all trees of "at-risk" species to be removed shall be surveyed for sudden oak death pathogens, and individual treatment methods shall be identified.

Mitigation Measure Bio-12B, Tree Removal Precautions: If a tree needs to be removed, the tree stump should be cut as close to the ground as practical. Stump grinding is not recommended because the equipment may become contaminated by soil and result in pathogen spread when used at another location. The operation of vehicles or heavy equipment in such areas may lead to further disease spread when soil is disturbed and moved around. If at all practical, tree removal should be scheduled between June to October when conditions are warm and dry, and avoid removing diseased trees when moist conditions favor pathogen spread (November to May).

Mitigation Measure Bio-12C, Debris Removal Precautions: Proper disposal of infested material is an effective means of limiting the spread of pathogens. In infested areas, leaving infected or dead trees on site has not been shown to increase the risk of infection to adjacent trees. Removal of an infected tree from the property is only recommended if that tree is the first infected tree detected, if the fire risk is high, or if the dead tree is a safety hazard. If debris cannot be left on site, infested material should be disposed of at an approved and permitted dump facility.

Implementation of the above mitigation measures would reduce the environmental impacts associated the possible spread of sudden oak death to a level of less than significant. **(Less than Significant with Mitigation)**

Cultural Resources

Historical Resources

As indicated in the Draft EIR, no structures remain on the site and no significant historic resources were identified on the site in prior surveys. The surveys did indicate the presence of historic foundations and concrete retaining walls, but none of these was observed to be discrete historic deposits, and many of the demolished building materials had been consolidated into piles and have been since removed. Therefore, none of the buildings and structures that formerly occupied the site retains sufficient integrity to be considered significant. Both field surveys identified the presence of two wells, neither of which were found to be historically significant, but that may contain historic-era debris that might hold the potential to yield information about California History. While it is unlikely that either well contains debris and/or historical artifacts in such a concentration as to be of significant historical value, there remains the possibility that any historical artifacts located in the well could yield valuable information. As such, the following Mitigation Measure identified in the Draft EIR is applicable to the Revised Project:

Mitigation Measure Cultural-1, Monitoring of Well Abandonment: When the two existing wells on the site are removed, a qualified archaeologist shall be present to record and recover any potentially significant historic-era deposits that may be uncovered. If historic materials are observed, they shall be recorded on the appropriate DPR forms and such forms filed with the CHRIS and the Planning Division. In the event that the onsite wells are abandoned and capped in place, then monitoring would be unnecessary, as no disturbance to potential resources would occur.

With implementation of Mitigation Measure Cultural-1, any significant historic-era artifacts that may be present within the on-site well will be retrieved and evaluated, and potential impacts to significant historical resources will be reduced to less than significant levels. **(Less than Significant with Mitigation)**

Archaeological and Tribal Resources

Like the original Project, the Revised Project has the potential to affect the significance of yet-undiscovered archeological resources. Prior Cultural Resource Studies prepared in 2003 and 2007 identified the presence of a pestle, a fragment of abalone shell, two historic era wells and fragments of ceramics and glass. However, none of these resources appeared to be historically or archeologically significant. This does not preclude the potential that the site may still contain as-yet undiscovered archeological artifacts. The site is located along the banks of the Petaluma River in an area that is known to have been occupied by the Coast Miwok. Therefore, as indicated in the Draft EIR, the site exhibits heightened potential for archeological resources to be present below grade.

On behalf of the City of Petaluma and at the beginning of this EIR process, a Tribal Consultation List Request form was submitted to the Native American Heritage Commission (in October 2007), with follow-up inquiry of tribal representatives as to their interest in consultation on the Project. After State passage of AB 52, the City of Petaluma chose to re-invite the Federated Indians of Graton Rancheria to consult on the Project. Responses to these invitations to consult on tribal cultural resources provided either no comment or indicated that they were unaware of any tribal or cultural resources in the immediate area, from all but the Federated Indians of Graton Rancheria (see Draft EIR Appendices). The Federated Indians of Graton Rancheria requested consultation in December of 2007 and consultation between the City and Federated Indians of Graton Rancheria occurred in January of 2008. Based on these responses, consultation and prior investigations, the Project site is not known to contain tribal cultural resources, either as a sacred place or as a place containing objects with cultural value to a California Native American tribe. In order to ensure that undiscovered archeological resources are not adversely impacted by construction activities, the following mitigation measure from the Draft EIR, as modified based on consultation with the Federated Indians of Graton Rancheria (see Chapter 7: Revisions to the Draft EIR) is equally applicable to the Revised Project:

Mitigation Measure Cultural-2: Discovery of Unknown Archaeological or Tribal Resources. To reduce potential impacts on prehistoric site deposits and or Tribal cultural resources that may be discovered during construction:

- a) The applicant shall retain the services of a qualified archaeological consultant approved by the City of Petaluma and from the Federated Indians of Graton Rancheria's list of qualified archaeologists who have also demonstrated the ability to work cooperatively with the Tribe, to monitor ground-disturbing activity near the Petaluma River; that is during the river terrace grading work. The archeologist shall monitor ground-disturbing activities according to a schedule agreed upon by the archeological consultant and the City of Petaluma. The monitor need only be present during activities that could affect significant archeological deposits or Tribal cultural resources. After considering the types of project activities and the probabilities of encountering a significant archaeological deposit or Tribal cultural resource, the City and the archaeologist shall adjust the monitoring frequency accordingly, or implement a cessation of the monitoring schedule altogether.
- b) If a concentration of artifacts, cultural soils or Tribal cultural resources is encountered during construction anywhere on-site, all soil-disturbing activities within 100 feet of the discovery shall cease. The archaeological monitor shall have the authority to stop work and temporarily redirect crews and heavy equipment until the resource is evaluated. The archaeological monitor shall immediately notify the City of Petaluma Planning Division of resources encountered. The archeological monitor shall, after making a reasonable effort to assess the identity, integrity and

significance of the encountered resource, present the findings of this assessment to the City and provide treatment recommendations.

With implementation of Mitigation Measure Cultural-2, any potential adverse effects to buried, as-yet undiscovered archeological or Tribal cultural resources would be reduced to less than significant levels. (**Less than Significant with Mitigation**)

Paleontological Resources

Bedrock underlying the site has potential to contain significant paleontological resources. Areas with alluvium soil deposits in close proximity to rivers, such as this site, have been known to contain vertebrate fossils. Destruction of such of currently undiscovered paleontological resources would be a significant environmental impact. To ensure that ground-disturbing activities do not adversely affect any as-yet undiscovered paleontological resources, the following mitigation measure from the Draft EIR is equally applicable to the revised Project:

Mitigation Measure Cultural-3, Discovery of Unknown Paleontological Resources: In the event paleontological resources are encountered, the applicant shall procure a qualified paleontologist approved by the City of Petaluma to document, evaluate and assess the significance of the resource in accordance with the criteria set forth in the guidelines adopted by the Society of Vertebrate Paleontology, CEQA Guidelines Section 15064.5.

Implementation of Mitigation Measure Cultural-3 will ensure that potential impacts due to the discovery of unknown paleontological resources during grading operations for the Revised Project are reduced to a level below significance. (**Less than Significant with Mitigation**)

Human Remains

Ground-disturbing activities associated with site preparation, grading, and excavation could disturb human remains, including those interred outside of formal cemeteries. The potential to uncover human remains, including Native American human remains, exists throughout California. Although not anticipated, human remains may be encountered during site-preparation and grading activities. In the event that human remains may be encountered onsite, the applicant shall implement the following mitigation measure consistent with the provisions of California Health and Safety Code section 7050.5(b) during all ground-disturbing activities:

Mitigation Measure Cultural-4, Discovery of Human Remains: In the event that human remains are uncovered during earthmoving activities, all construction excavation activities shall be suspended, and measures shall be undertaken in accordance with the Health and Safety Code Section 7050.5.

With implementation of the Mitigation Measure Cultural-4, any disturbance of human remains would be handled in a manner that would avoid significant impacts, including impacts to Native American remains, and the impact would be less than significant. (**Less than Significant with Mitigation**)

Geology and Soils

Surface Fault Rupture

As documented in the Draft EIR, the site is not within an Earthquake Fault Zones as defined pursuant to the Alquist-Priolo Earthquake Fault Zoning Act of 1972. The nearest Earthquake Fault Zone is the Rogers Creek-Healdsburg Fault Zone located approximately five miles northeast of the site. Since no faults are mapped across the site on any published maps, ground rupture at the site resulting from an earthquake is unlikely, the risk of ground rupture within the site boundaries is considered very low, and the Revised Project would not expose people or structures to potentially substantial adverse effects involving rupture of a known earthquake fault. (**Less than Significant**)

Exposure to Strong Seismic Ground Shaking

As indicated in the Draft EIR, new residential development at the site could expose people or structures to potentially substantial adverse effects involving strong seismic ground shaking. The Draft EIR recommended the following mitigation measures pursuant to regulatory requirements, and these measures remain applicable to the Revised Project:

Mitigation Measure Geo-2A, Compliance with California Building Code: New development on the site shall meet all requirements of the California Building Code, as may be modified by amendments, additions and deletions as adopted by the City of Petaluma.

Mitigation Measure Geo-2B, Incorporation of Geotechnical Investigation Recommendations: Consistent with Chapter 18 of the Petaluma Building Code requirements, recommendations included in the RGH Consultants' Geotechnical Engineering Report Update for Sid Commons (January 20, 2015) regarding foundation and structural design measures shall be incorporated in final designs for each structure, contingent upon concurrence by the City's Engineer and Chief Building Official. To ensure that appropriate construction techniques are incorporated, the Project's Geotechnical Engineer shall inspect the construction work and certify to the City, prior to issuance of a certificate of occupancy, that all improvements have been constructed in accordance with the approved Geotechnical Investigation specifications.

Incorporation of seismic construction standards as required by the regulatory requirements identified in Mitigation Measures Geo-2A and -2B would reduce the potential for catastrophic effects of ground shaking, such as structural failure. These construction standards will not completely eliminate the hazard of seismically induced ground shaking, but will reduce the hazards to a level considered acceptable by the state of California for reducing seismic risks to acceptable levels, and therefore to a level of less than significant.

(Less than Significant with Mitigation)

Liquefaction

Similar to the original Project, the Revised Project would not expose people or structures to potentially substantial adverse effects involving seismic-related ground failure, including liquefaction. To assess the potential for liquefaction and the extent and consequences of liquefaction should it occur at the site, a detailed geotechnical exploration of the site was performed (RGH Engineers, Draft EIR Appendix 8B). Based on this detailed geotechnical report, the planned development area of the site and the area within the proposed River terrace do not exhibit a potential for liquefaction. Because these detailed studies indicate no potential for liquefaction within the development areas of the Project site, no mitigation measures are required. **(Less than Significant)**

Landslides

Similar to the original Project, the Revised Project would not expose people or structures to potential substantial adverse effects due to the risk of loss, injury or death involving landslides. Those portions of the Project site proposed for new development are generally flat and present no potential for landslide hazards. The only portion of the Project site where landslide potential is of concern is along the Riverbank, where the proposed terracing plan along the Petaluma River may encounter bank instability. A slope stability analysis was performed for the site (as presented in the Draft EIR), finding that there are no geotechnical hazards related to slope stability for the river terrace and as such, no mitigation measures are required. **(Less than Significant)**

Expansive Soils

Portions of the site proposed for development contain localized expansive soil, creating substantial risks to property. Expansive clay soils are potentially damaging to foundations as these soil types shrink and swell in response to changes in moisture content. Near the surface, the resulting movement can lead to cracking and settlement of lightly loaded shallow foundations (spread footings) that could eventually undermine structures. Expansive soils can also cause damage to roadways and sidewalks, as well as underground conduits. Soil borings conducted at the site encountered near-surface expansive soils that could be exposed at the surface after grading is complete. These expansive soils can affect the performance of structures, and this impact is considered potentially significant. The impacts of expansive soils can be mitigated by grading and/or foundation design measures as identified in the Draft EIR, which are also applicable to the Revised Project:

Mitigation Measure Geo-5A, Soil Treatment: The detrimental effects of expansive soil movements can be reduced by pre-swelling expansive soils and covering them with a moisture fixing and confining blanket of properly compacted non-expansive engineered fill (select fill). Select fill can consist of approved non-expansive on-site soils, imported non-expansive materials or lime stabilized on-site clay soils.

Mitigation Measure Geo-5B, Foundation Design: New structures shall be supported on either post-tension slab foundations or mat slab foundations. These foundation slabs shall be designed using the expansion characteristics of the soils. Grading to prepare the building pads shall consist of reworking the upper 2 to 3 feet of surface soils by excavating these soils, moisture conditioning them to at least 4 percent above optimum moisture content, and compacting them to at least 90 percent relative compaction, or as otherwise specified by the geotechnical engineer.

Implementation of the above mitigation measures will reduce the potential impact of expansive soils to less than significant levels. **(Less than Significant with Mitigation)**

Soil Erosion

As indicated in the Draft EIR for the original Project, the Revised Project could result in the loss of topsoil resulting from development on potentially erodible soils. Grading activities at the site pursuant to the Revised Project will be substantially similar to grading as proposed pursuant to the original Project, although grading for new development will be more substantially set back from the River Corridor. Grading will still be required to provide level surfaces for roads and structures, and excavation of expansive soils at the site will involve disturbing and removing the topsoil. Substantial grading activities will also be necessary to implement the proposed River terracing plan. To address potential erosion impacts, the following mitigation measure from the Draft EIR is also required of the Revised Project:

Mitigation Measure Geo-6, Erosion Control Plan: Prior to issuance of a grading permit, an erosion control plan, along with grading and drainage plans, shall be submitted to the City Engineer for review. All earthwork, grading, trenching, backfilling, and compaction operations shall be conducted in accordance with the City of Petaluma's Subdivision Ordinance (#1046, Title 20, Chapter 20.04 of the Petaluma Municipal Code) and Grading and Erosion Control Ordinance #1576, Title 17, Chapter 17.31 of the Petaluma Municipal Code). These plans shall detail erosion control measures such as site watering, sediment capture, equipment staging and laydown pad, and other erosion control measures to be implemented during construction activity on the project site.

Implementation of this mitigation measure would reduce potential impact of soil erosion during construction to a level of less than significant. **(Less than Significant with Mitigation)**

Septic Systems

Like the original Project, the Revised Project would not rely on septic tanks or alternative wastewater disposal systems dependent on appropriate soil capabilities. A municipal sewer system is present in the area and will be used by the Revised Project. **(No Impact)**

Loss of Mineral Resources

Development of the site would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. **(No Impact)**

Greenhouse Gas Emissions

Construction Activity Emissions

The total construction-period emissions calculated for the original Project were estimated at 1,317 MT CO₂e. By dividing these total emissions over a 1.5-year construction period, the one-year emission rate as presented in the Draft EIR was approximately 878 MT CO₂e. In the absence of thresholds for construction-related greenhouse gas emissions, emissions from construction were conservatively compared to the threshold of significance for operation (1,100 MT CO₂e/year), and found to generate emissions that fall below that threshold. Construction of the Revised Project includes less total residential units but comparable grading and paving activity. It is not expected that construction activity associated with the Revised Project would result in greater GHG emissions than assumed for the original Project, and construction period GHG emissions due to the Revised Project would be similarly less than significant. **(Less than Significant)**

Project Operational Emissions

The Draft EIR calculated that the original Project would generate greenhouse gas emissions from both direct and indirect sources that would produce approximately 2,590 metric tonnes of CO₂e per year, exceeding the annual significance threshold of 1,100 MT/year. The majority of GHG emissions attributable to the original Project (approximately 71 percent) were mobile source emissions from future resident's vehicles. The original Project would have resulted in 278 new residential units, accounting for a service population of approximately 723 people. By dividing these annual GHG emissions by the original Project's service population resulted in a service population ratio of approximately 3.58 MT CO₂e per service population per year, below the significance threshold of 4.6 MT CO₂e/SP/year, or less than significant.

The Revised Project has fewer residential units generating comparatively fewer operational GHG emissions. As a very conservative assumption, the Revised Project could result in similar levels of GHG emissions from area sources, energy, waste and water, as would the original Project. However, the Revised Project would include 74 percent of the original Project's residential units, generating 74 percent of the original Project's vehicle trips and 74 percent of its calculated mobile source emissions. By adding the lowered mobile source emissions attributable to the Revised Project to the same area source, energy, waste and water emissions as calculated for the original Project, total GHG emissions from the Revised Project are conservatively calculated at 2,104 metric tonnes of CO₂e per year. Dividing these annual GHG emissions by the effective service population of the Revised Project (calculated at 205 households times 2.6 persons per household, or 533 residents) results in a service population ratio of approximately 3.95 MT CO₂e per service population per year, below the significance threshold of 4.6 MT CO₂e/SP/year, or less than significant. **(Less than Significant)**

Consistency with GHG Reduction Plans

Similar to the original Project, the Revised Project would not fundamentally conflict with an applicable plan, policy or regulation adopted for the purposes of reducing greenhouse gas emissions. As stated in the Draft EIR, the adopted regulations pursuant to AB 32 and SB 375 are used to assess consistency. The numeric significance thresholds as used in the Draft EIR (1,100 MT/year and 4.6 MT CO₂e/SP/year) were formulated

based on the reduction strategies of AB 32. Since the Revised Project would not exceed the significance threshold, it would not conflict with applicable plans, policies and regulations adopted for purposes of reducing GHG emissions. Furthermore, the Revised Project will be required to comply with all CALGreen + Tier 1 building code requirements per City of Petaluma ordinances. Like the original Project, the Revised Project is consistent with applicable GHG Reduction Plans and impacts due to a potential conflict would be less than significant. **(Less than Significant)**

Hazards and Hazardous Materials

Registered Hazardous Materials Sites

The site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, including the DTSC's EnviroStor database and the SWRCB's GeoTracker database. A Phase 1 ESA revealed that the site has not been adversely impacted by any environmental releases, either off-site or on-site. However, the Phase 1 report did recommend that the surface soil at the site be tested for pesticides prior to development because of its former agriculture use. Consistent with that recommendation, the following mitigation measures, as amended (See Chapter 7: Revisions to the Draft EIR) are also applicable to the Revised Project:

Mitigation Measure Haz-1A, Soil Testing and Regulatory Compliance: Prior to issuance of building or grading permits, the project applicant shall conduct a soil testing program to identify the potential for agricultural chemicals, agriculture-related petroleum hydrocarbon spills, lead-based paint or elevated levels of contaminants near the rail tracks to be present in the soils at levels exceeding recommended health screening levels. Should any impacted soil be discovered that exceeds human health screening levels for residential soil as noted in DTSC's HERO HHRA Note 3 criteria and/or Environmental Screening Levels (ESLs), such soils shall be excavated and removed for appropriate off-site disposal prior to development pursuant to existing regulatory requirements.

Mitigation Measure Haz-1B, Discovery of Unknown Contaminants: If unknown contamination, underground tanks, containers or stained or odorous soils are discovered during construction activities, appropriate investigation, sampling and comparison of data collected with health-based screening levels and/or consultation with a regulatory oversight agency shall be conducted.

With implementation of Mitigation Measure Haz-1A and 1B and compliance with all applicable regulatory requirements regarding California Human Health Screening Levels for residual pesticides, the impacts of the Revised Project regarding hazardous materials exposure will be reduced to a level of less than significant. **(Less than Significant with Mitigation)**

Routine Transport, Use or Disposal of Hazardous Materials

It is likely that equipment used during construction activities will utilize substances considered by regulatory bodies as hazardous. These substances likely include diesel fuel, gasoline, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues and other substances. Construction of the Project would also require the use of gasoline and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps and air compressors. Residential uses generally do not utilize substantial amounts of hazardous materials other than incidental use of household chemicals and vehicle fuels. The Project's proposed swimming pool will also likely utilize chemicals such as chlorine as a disinfectant. Like the original Project, routine use of materials considered hazardous during the construction period, routine use of chlorine at the clubhouse pool, and incidental use of household hazardous chemicals pursuant to the Revised Project would be required to comply with applicable regulations regarding the handling of these materials. Compliance with applicable regulatory requirements would minimize hazards to workers, the public and the environment from use of these potentially hazardous products. **(Less than Significant)**

Accidental Release of Hazardous Materials

The potential for an accidental release of hazardous materials into the environment is considered most likely during the construction phase, when concrete, wood preservatives, paint, asphalt and other potentially hazardous materials would be stored, used and moved around on the site and in close proximity to the Petaluma River, potentially harming the aquatic environment. A separate risk could occur from the threat of a spill or leak during routine use of household hazardous materials and chlorine at the pool. Construction contractors will be required to comply with all existing federal and state safety regulations related to the transport, use, handling, storage and/or disposal of fuels or other potentially hazardous substances during all phases of construction. As described in the Draft EIR, the applicant will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). The purposes of the SWPPP are to control erosion, provide appropriate means for the storage, use and cleanup of fuels and hazardous materials, and to identifying best management practices (BMPs) to protect stormwater runoff. The design requirements and implementation measures to be included in the SWPPP are identified in the Hydrology chapter of the Draft EIR (**Mitigation Measure Hydro-1, SWPPP Requirements**). Implementation of project-specific details of the SWPPP pursuant to MM Hydro-1 (is also applicable to the Revised Project, see further discussion under Hydrology analysis of the Revised Project below) will reduce the potential for accidental spills of hazardous materials to enter the waterway, and the impact will be reduced to a less than significant level. (**Less than Significant with Mitigation**)

Hazardous Emissions within One-Quarter Mile of a School

The site is located one-half mile northwest of the nearest school, McKinley Elementary School. Like the original Project, the types of hazardous materials associated with the Revised Project would be limited to typical household chemicals. The Revised Project does not include any industrial uses or other stationary sources of pollution, toxic air contaminants or hazardous materials that could cause off-site hazardous emissions. The Revised Project would have a less than significant impact to schools located within ¼ mile due to the release of hazardous materials. (**Less than Significant**)

Hydrology

Increased Pollution, Erosion and Siltation during Construction

Similar to the original Project, the Revised Project's grading and construction activity could alter existing drainage patterns of the site in a manner that could result in substantial erosion or siltation, and provide substantial additional sources of polluted runoff. To address construction-period erosion and siltation, as well as the introduction of construction-related sources of water pollution, the applicant will be required to demonstrate compliance with all applicable regulatory requirements. These regulatory requirements include filing a Notice of Intent (NOI) with the RWQCB for compliance with the NPDES General Construction Activities Permit, preparing and implementing a site-specific Storm Water Pollution Prevention Plan (SWPPP) per NPDES general construction permit requirements, and preparing and submitting an Erosion Control Plan for review and approval by the City of Petaluma. All of these regulatory requirements are to be met prior to issuance of a grading permit. In furtherance of these regulatory requirements, the Draft EIR recommended the following mitigation measure, equally applicable to the Revised Project, to provide further detailed requirements and to reduce and/or avoid adversely affecting water quality during construction.

Mitigation Measure Hydro-1, SWPPP Requirements: Design requirements and implementation measures for minimizing Project-generated erosion and for controlling fuel/hazardous material spills shall be set forth in the applicant's SWPPP, in accordance with State and RWQCB design standards.

Mitigation Measure Hydro-1 represents the City of Petaluma's baseline mitigation requirements, but subsequent permit requirements may result in potentially greater mitigation obligations based on site-specific information as determined through agency coordination. With all necessary permits and approvals,

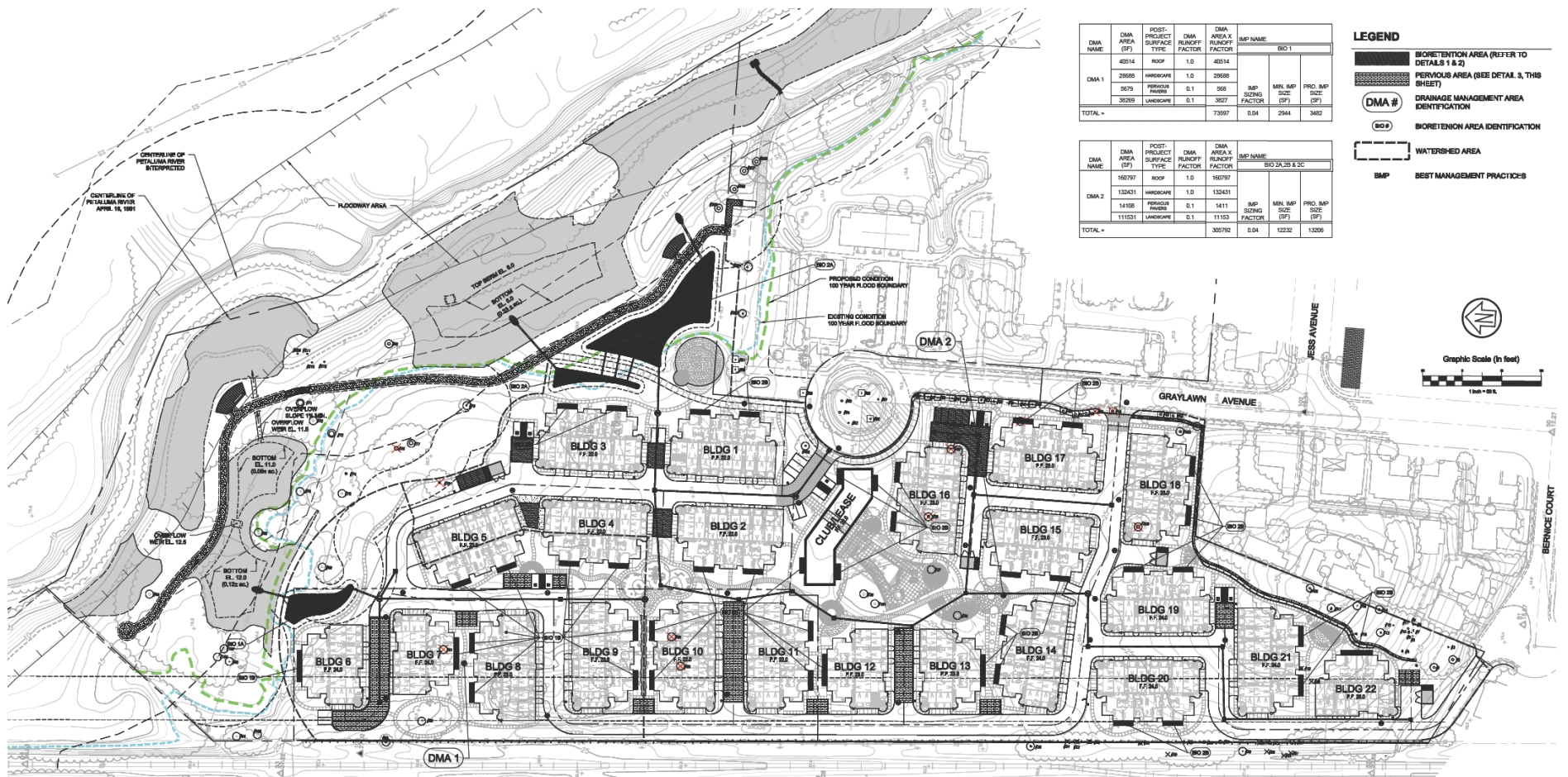
the Revised Project would not violate any adopted water quality standards or waste discharge requirements, and effects on the quality from construction would be less than significant. **(Less than Significant with Mitigation)**

Operational Water Quality

Similar to the original Project, the Revised Project would contribute stormwater runoff that could introduce pollutants that would substantially degrade water quality. The Revised Project could contribute to levels of non-point sources of pollutants and litter entering downstream waters, including the Petaluma River and the San Francisco Bay. An increase in non-point sources of pollutants could have adverse effects on wildlife, vegetation and human health. Parking areas are a source of suspended solids, petroleum hydrocarbons and heavy metals, and the landscaped areas could contribute harmful landscape chemicals, pesticides and fertilizers to runoff leaving the site.

The Revised Project includes an updated preliminary Storm Water Control Plan (SWCP) that shows how the site would be drained by two storm drainage systems (**Figure 3-4**). Prior to being discharged into the stormdrain system, much of the non-point source pollutants washed from roofs, landscape areas and streets and parking areas would be filtered through bioretention areas dispersed throughout site and/or through self-treating impervious paving blocks (e.g., within walkways). Runoff from these bioretention areas will then be collected in a series of underground storm drains that drain into larger bioretention basins located in the northerly portion of the Project site before being discharged via a new storm drain outlets along the banks of the Petaluma River.

The Revised Project will result in a total of approximately 362,430 square feet of impervious surface area, or almost identical impervious surface area as compared to the original Project. The Revised Project has fewer total units but approximately the same surface area covered with impervious surface because the Revised Project proposes 2-story, rather than 3-story, buildings. The preliminary design of stormwater treatment facilities presented in the Revised Project's preliminary SWCP demonstrate a minimum requirement for 15,176 square feet of bio-treatment facilities needed, whereas the Revised Project provides for a total of 16,688 square feet of bioretention area. The Revised Project will be required to demonstrate compliance with the NPDES General Permit for the Discharge of Storm Water from Small MS4s (SWRCB 2013). The Small MS4 General Permit requires the Revised Project proponent to incorporate site design measures, source controls, stormwater treatment measures and/or other low impact development (LID) measures to reduce stormwater runoff and limit the transport of pollutants to receiving waters, and requires implementation of source control measures for specific pollution-generating activities. Pursuant to the City of Petaluma's Stormwater Management and Pollution Control Ordinance, the Revised Project will be required to demonstrate that appropriate BMPs will be implemented to control the volume and potential pollutant load of stormwater runoff from the site. The selection and the design of the BMPs shall be per the City's Stormwater Policy and Design Standards, and per the applicable NPDES permit issued to the City and other available guidance documents (e.g., the California Stormwater Quality Association Best Management Practice Handbooks or equivalent).



DMA NAME	DMA AREA (SF)	POST-PROJECT SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA X RUNOFF FACTOR	IMP NAME
DMA 1	42014	ROOF	1.0	42014	BIO 1
	29688	HARDSCAPE	1.0	29688	
	5679	PERVIOUS PAVEMENT	0.1	568	
	36269	LANDSCAPE	0.1	3627	
TOTAL =				73997	0.04
					2964
					3462

DMA NAME	DMA AREA (SF)	POST-PROJECT SURFACE TYPE	DMA RUNOFF FACTOR	DMA AREA X RUNOFF FACTOR	IMP NAME
DMA 2	16077	ROOF	1.0	16077	BIO 2A,B & C
	13363	HARDSCAPE	1.0	13363	
	14106	PERVIOUS PAVEMENT	0.1	1411	
	11523	LANDSCAPE	0.1	1152	
TOTAL =				32572	0.04
					1232
					13206

LEGEND

- BIORETENTION AREA (REFER TO DETAILS 1 & 2)
- PERVIOUS AREA (SEE DETAIL 3, THIS SHEET)
- DMA # DRAINAGE MANAGEMENT AREA IDENTIFICATION
- BIO # BIORETENTION AREA IDENTIFICATION
- WATERSHED AREA
- BMP BEST MANAGEMENT PRACTICES

Graphic Scale (in feet)
1" = 50'

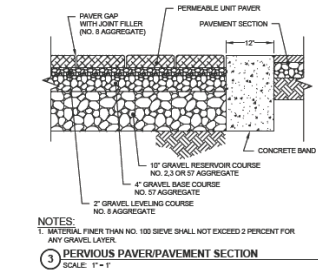
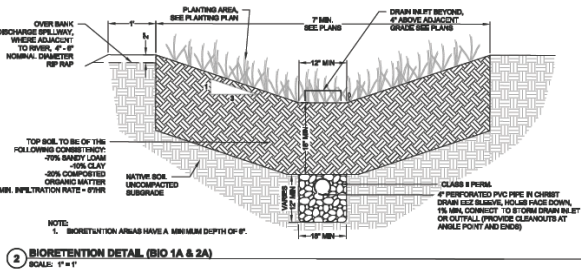
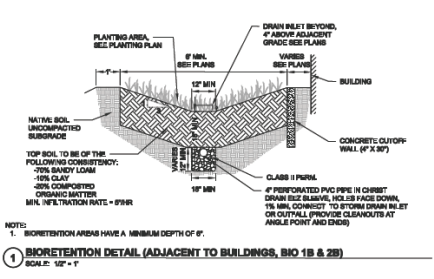


Figure 3-4
Revised Project's Preliminary Storm Water Control Plan

In furtherance of these regulatory requirements, the following mitigation measures apply to the Revised Project to reduce and/or avoid adversely affecting water quality.

Mitigation Measure Hydro-2A, SWCP Implementation: The Project shall design, construct and implement appropriate post-construction stormwater treatment measures to reduce water quality and hydromodification impacts to downstream reaches, as required by the current post-construction control requirements of the Small MS4 General Permit. Upon completion of the final project design, the applicant shall provide documentation of stormwater management measures that show compliance with the Small MS4 General Permit.

Mitigation Measure Hydro-2B, SWCP Monitoring and Maintenance Agreement: Prior to public improvement plan approval, a mechanism shall be in place to ensure funding of on-going maintenance, inspection, and as needed repair of the Project SWCP, including the maintenance of the proposed Terracing Plan.

The regulatory requirements and Mitigation Measures identified above would reduce effects on the quality of storm water runoff from the Project site to less than significant levels. The mitigation measures identified above are the City of Petaluma's baseline mitigation requirements, and subsequent permit requirements may result in different (potentially greater) mitigation obligations based on site-specific information and determined through agency coordination. **(Less than Significant with Mitigation Measures)**

Development within the Floodplain

Like the original Project, the Revised Project would not place any new housing or create any new habitable space on the first floor of a new building that is located within a regulated floodplain. The Revised Project would not place new housing within the 100-year flood hazard area as defined on applicable (February 2014) FEMA Flood Insurance Rate Maps. A more detailed floodplain delineation has also been established for the site, using the city's latest high-performance Storm Water Management Model (XP-SWMM). According to the XP-SWMM delineation, the Revised Project does not place any apartment structures within the 100-year floodplain as delineated in the City's XP-SWMM model. **(Less than Significant)**

Increased Stormwater Runoff

Similar to the original Project, the Revised Project will increase the rate and amount of surface runoff from the site, but not in a manner that will result in flooding on- or off-site, nor would it create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.

The Revised Project is set back further from the River than was the original Project and has fewer residential units, but has almost an identical coverage of impervious surface area as did the original Project (which covers approximately 8.32 acres with impervious surfaces). This same impervious surface area will result in similar increased surface runoff from the site as analyzed for the original Project in the Draft EIR.

The site is located in the lower reaches of the Petaluma River watershed. Analysis presented in the Draft EIR (beginning at page 11-26) concluded that, because of the site's location within the downstream portion of the watershed, existing runoff from the site leaves the site and passes downstream in the River prior to the onset of larger peak flows generated further upstream in the watershed. Storing runoff on-site would delay flows leaving the site and coincide with the arrival of peak flows from the upper watershed, which could increase flood levels in the River. Projects immediately adjacent to the River in this area of the watershed can minimize flood impacts by letting their runoff leave the site and enter the downstream drainages as quickly as possible.

As indicated in the Draft EIR, the increased flood flows attributable to the original Project near its outfall location showed a minor increase in the peak 100-year storm flow in the River of about 0.1 percent. This increased flow was found to be within the limits of model tolerances and was not considered significant.

Increased runoff due to the original Project, combined with increased capacity of the river channel associated with the original Project's terraced grading would result in similar, minor increases in 100-year storm flows downstream of the site (less than one-half of 1% at all measured locations). The increased flows at further downstream locations appear to be attributable to the increased capacity of the River channel and its ability to convey increased flows downstream. The Revised Project will result in a total of approximately 362,430 square feet of impervious surface area (or an almost identical coverage of impervious area as compared to the original Project). This increase in impervious surface will generate nearly identical runoff from the site as was modeled for the original Project, and will result in the same less than significant increase in peak 100-year storm flow in downstream reaches of the River. **(Less than Significant)**

River Terracing – Effects on Base Flood Elevations and Flood Boundaries

Similar to the original Project, the Revised Project's proposed riverbank terrace grading would not substantially alter the course of the Petaluma River in a manner that could cause increased risk or severity of on-site or off-site flooding. Terraced grading is required to be part of any project on this site pursuant to City General Plan policy to improve flood capacity and flow efficiency. Like the original Project, the Revised Project includes a terraced grading plan that would result in a net removal of soil from along the riverbanks, designed to expand the channel capacity to convey 100-year peak flows in the River as part of the citywide flood control efforts. The Revised Project's terraced grading plans result in an approximate 4 percent decrease in expanded channel capacity as compared to the original Project (from 21,140 cubic yards of excavation under the original Project to 20,250 cubic yards of excavation under the Revised Project). This modification to the terracing plan is to allow the Revised Project to preserve the two oak trees that the original terrace design removed.

The Draft EIR presented an analysis of the effects of riverbank terracing at the site using the City-approved 2010 XP-SWMM software. The modeling results indicated a reduction in water surface elevation just upstream of the site of approximately 0.4 feet, and a reduction in water surface elevation at the site of just under 0.4 feet. It also indicated a minor increase in the elevation of peak water surfaces downstream by an average of approximately 0.02 feet (or between 1/4 and 1/3 inch) or within the accuracy tolerances of the hydrology model, with virtually no addition to current downstream 100-year floodplain boundaries.¹⁰

As was noted in the Draft EIR, the minor increase in downstream Petaluma River water surface elevations was previously documented as part of the Denman Terracing Phase 3 study (a separate terracing project upstream of Corona Road). Therefore, an additional evaluation was conducted to consider the effects of both the approved Denman Phase 3 terracing project, and the original Project's proposed terracing. This evaluation found maximum water surface elevations to be lower than those elevations previously reported and approved for the 2012 Denman Phase 3 terracing project evaluation. The results of this combined evaluation indicate that the resulting maximum water surface elevation with both the Denman Phase 3 terracing and the original Project's terracing projects in flood-prone areas such as C Street and 1st Street in downtown would be lower than previously identified in the 2012 Denman Phase 3 terracing project only. Therefore, impacts due to a change in the surface flood elevation as result of the original Project were found to be less than significant.

A subsequent December 2018 analysis completed for the City of Petaluma evaluated the combined effect of sediment removal in the channel in the vicinity of Corona Road and a proposed detention basin at a property adjacent to the Petaluma River in the Denman Reach (Denman Phase 4). That analysis concluded that the Denman Phase 4 project would result in a further net decrease in peak flow and water surface elevations downstream, and further reductions in water surface elevations of up to about 0.9 feet upstream of Corona Road for the 100-year event. The Denman Phase 4 project is currently under construction. The analysis of base flood elevations as presented in the Draft EIR is conservative, and had the Denman Phase 4 project been

¹⁰ Per Table 11-4 of the Draft EIR

included in the hydrology modeling that was included in the Draft EIR, the resulting water surface elevations would have been lower (i.e., would have resulted in less impact).

Like the original Project, the Revised Project includes a terraced grading plan designed to convey 100-year peak flows in the River. The Revised Project's terraced grading plans result in an approximate 4 percent decrease in expanded channel capacity (from 21,140 cubic yards of excavation, to 20,250 cubic yards of excavation). This modified grading scheme would result in similar reductions in water surface elevations under 100-year flood conditions, with commensurate reductions in 100-year floodplain boundaries upstream and adjacent to the site, and similar slight increase in water surface elevations and virtually no addition to the current 100-year floodplain boundaries downstream of the site. **(Less than Significant)**

Groundwater Depletion/ Recharge

Like the original Project, the Revised Project will not draw upon or otherwise reduce groundwater resources. Development of the site would increase impervious surfaces within the groundwater basin, and to a limited extent reduce stormwater infiltration into the groundwater. However, the development portion of the site is overlain by Yolo and Clear Lake clays, which have low permeability. It is unlikely that the upper portion of the site provides extensive groundwater recharge to the Petaluma Groundwater Basin. The Petaluma River does provide extensive groundwater recharge, and the river and its associated floodway and floodplain will remain as open, impervious surface pursuant to the Revised Project. **(Less than Significant)**

Inundation by Seiche, Tsunami or Mudflow

The site is not located in an area that would expose residents of the Revised Project to inundation by seiche, tsunami or mudflow. The site is nearly level and is not in proximity to any large lake or the ocean. **(Less than Significant)**

Sea Level Rise

Like the original Project, the Revised Project site would not be subject to hazards associated with increased flooding of the Petaluma River due to sea level rise. Sea level rise will affect the Petaluma River because it is a tidally influenced river. An assumed high-level sea rise scenario of up to 5.7 feet (175 cm) coupled with an extreme high tide, a 100-year storm event, and waves would result in elevated River levels and out-of-bank flooding. Under such a scenario, the influence of sea level rise on the Petaluma River is expected to extend north of the East Washington Bridge to near Madison Street, approximately one mile south of the site. This level of sea level rise is not expected to occur until year 2100 and sea level rise conditions this far into the future cannot be presumed with a high level of confidence. Although the Revised Project is located adjacent to the Petaluma River, the site is high enough in the watershed that it will not be significantly impacted by flooding events related to sea level rise. Therefore, sea level rise would have a less than significant impact on the Revised Project. **(Less than Significant)**

Noise

Project Operational Noise

As concluded in the Draft EIR for the original Project, the Revised Project is expected to result in typical noise levels associated with residential development, including voices of the new residents, home maintenance activities, barking dogs and children. Though the noise environment may change noticeably in some areas due to the occupation of the new residences, the noise associated with the proposed residences is compatible with the surrounding land uses, is anticipated by the City's General Plan and therefore is not judged to result in a noise impact. **(Less than Significant)**

Traffic and Circulation

Pipeline plus Project - Intersection Level of Service

The Revised Project would generate less traffic than was assumed under the original Project. Since the Draft EIR concluded that the addition of traffic generated by the original Project, when added to the Pipeline scenario, would not cause a cumulative level of service standard to be exceeded at any study area intersection, the Revised Project would have a similar less than significant traffic impact under the Pipeline scenario. **(Less than Significant)**

Existing plus Project – Freeway Operations

The Draft EIR concluded that the addition of traffic generated by the original Project would not cause a freeway segment operating at LOS E or better to deteriorate to LOS F. It also concluded that the addition of traffic generated by the original Project would not cause an increase in traffic on a freeway segment already exceeding LOS E by more than one percent of the freeway segment's design capacity. Since the Revised Project would generate less traffic than was assumed under the original Project, the Revised Project would have a similar less than significant traffic impact on freeway operations. **(Less than Significant)**

Pipeline plus Project – Freeway Operations

The Draft EIR concluded that the addition of traffic generated by the original Project, when added to the Pipeline scenario, would not cause a cumulative LOS standard established for the freeway system to be exceeded. Since the Revised Project would generate less traffic than was assumed under the original Project, the Revised Project would have a similar less than significant cumulative traffic impact on freeway operations. **(Less than Significant)**

Cumulative plus Project – Freeway Operations

The Draft EIR concluded that the addition of traffic generated by the original Project, when added to the Cumulative scenario, would not cause a cumulative LOS standard established for the freeway system to be exceeded. Since the Revised Project would generate less traffic than was assumed under the original Project, the Revised Project would have a similar less than significant cumulative traffic impact on freeway operations. **(Less than Significant)**

Transit Use

The Draft EIR concluded that the original Project would not result in a significant unanticipated increase in transit patronage beyond the system's current capacity. Since the Revised Project has fewer residential units and therefore fewer anticipated transit users than the original Project, the Revised Project would have a similar less than significant impact on transit use. **(Less than Significant)**

On-Site Circulation

The Draft EIR concluded that the on-site circulation plan of the original Project provided adequate design to accommodate emergency vehicles accessing and circulating within the Project site. The on-site circulation system design of the Revised Project is very similar to that of the original Project. On-site circulation will adequately accommodate emergency vehicles accessing and circulating within the site. **(Less than Significant)**

Construction Traffic

Similar to the original Project, the Revised Project will cause temporary disruption to the transportation network due to construction. The same mitigation measures as recommended in the Draft EIR to address temporary construction impacts of the original Project equally apply to the Revised Project:

Mitigation Measure Transp-12: Prepare Construction Management Plan. A construction management plan shall be prepared for review and approval by the City of Petaluma Public Works Department.

Implementation of Mitigation Measure Transp-12 would reduce the temporary construction impacts of the Revised Project to a less-than-significant level.

Utilities

Water Supply

The Draft EIR concluded that water supplies from existing entitlements and resources are available and sufficient to serve the demands of the original Project, and new or expanded entitlements were not needed. The Revised Project has fewer residential units than the original Project, requiring less water supply. The Revised Project will add to the cumulative demand for overall water supplies, and contribute to projected dry year water shortages. Therefore, the Revised Project will be required to include water conservation strategies that will reduce overall water demands to levels projected to be sustainable on a cumulative basis, and will be subject to those water shortage contingency plans that are now in place, and may be implemented in the future. **(Less than Significant)**

Wastewater

The Draft EIR concluded that the original Project would not exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board, and would not necessitate construction of new or expanded wastewater treatment facilities. The Draft EIR also concluded the original Project would not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the Project's projected wastewater treatment demand in addition to existing commitments. The Revised Project has fewer residential units than the original Project, requiring less wastewater treatment and disposal. **(Less than Significant)**

Storm Drainage Facilities

Like the original Project, the Revised Project would not require or result in the construction of new storm water drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects. Development of the Revised Project, like the original Project, would result in an increase in impervious surface and an increase in the volume of stormwater runoff leaving the site. However, the site is located immediately adjacent to the Petaluma River and stormwater runoff from the site would not enter the City of Petaluma's stormdrain system. Rather, stormwater would be collected within an on-site storm drainage system and directed to outlets in the Petaluma River. Potential environmental impacts related to this discharge were fully analyzed in the Hydrology and Water Quality chapter of the Draft EIR. All storm drainage infrastructure to be developed pursuant to the Revised Project would be required to comply with all provisions of the Petaluma Stormwater Management and Pollution Control Ordinance. As further discussed in the Hydrology and Water Quality chapter of the Draft EIR, these infrastructure systems must incorporate best management practices (BMPs) to limit the volume, rate and potential pollutant load of stormwater runoff. These requirements are incorporated as part of all land use entitlements or building-related permits issued by the City. The City will ensure that all applicable BMPs and post-construction treatment measures are properly installed, and that provisions for long-term maintenance are acceptable to the City prior to issuance of a Certificate of Occupancy. Compliance with the provisions of the Petaluma Stormwater Management and Pollution Control Ordinance would reduce any potential impacts related to storm drainage infrastructure to a level of less than significant. **(Less than Significant)**

Construction of New Utilities

Similar to the original Project, the Revised Project would not result in construction of new water, sewer or stormdrain facilities or the expansion of such facilities, in a manner that would cause significant environmental effects. The Revised Project would include new, on-site utility infrastructure to serve its new residents. Each of these on-site utilities is an integral part of the Revised Project, and fully evaluated in the Draft EIR. As concluded in the Draft EIR, construction of utility systems for the Revised Project would not generate environmental impacts greater than, or in addition to the impacts assumed under the original Project. **(Less than Significant)**

Solid Waste

Similar to the original Project, the Revised Project will be served by a landfill with sufficient permitted capacity to accommodate the revised Project's solid waste disposal needs. The Revised Project has fewer residential units than the original Project, generating less waste that will require disposal. **(Less than Significant)**

Energy

Wasteful, Inefficient or Unnecessary Consumption of Energy

Similar to the original Project, construction and operation of the Revised Project would increase the consumption of energy, but would not result in wasteful, inefficient or unnecessary consumption of energy. **(Less than Significant)**

Other Less-than-Significant Impacts

The Draft EIR presented a list of environmental topics that were briefly assessed for the original Project and were determined not to be significant. These topics included agricultural resources, hazards (as related to airport hazards and wildland fires), mineral resources, population and housing, and public services including recreation. The Revised Project does not raise any new environmental concerns pertaining to these topics than were addressed in the Draft EIR, and impacts pertaining to these issues would remain less than significant. **(Less than Significant)**

Master Response to Frequent Comments on the Draft EIR

Introduction

This Chapter of the Response to Comments document contains master responses to comments on the Draft EIR to those issues that were frequently raised in comment letters and at oral comments at public hearings. These frequently raised issues include:

- The original Project's proposed Shasta Avenue Extension and at-grade rail crossing
- General concerns about increased traffic levels
- Accuracy and applicability of traffic counts as used in the Draft EIR to establish baseline (or existing) conditions
- Accuracy of the trip generation rates assumed for the Project in the Draft EIR
- Accuracy of the trip distribution patterns assumed in the EIR, particularly as to vehicle trips on Jess Avenue
- Concerns about increased traffic on Graylawn Avenue and Jess Avenue
- Concerns about flooding and the potential for the Project to exacerbate flood conditions
- Concerns about stormwater runoff, both volume (potentially affecting downstream flooding) and water quality
- Implications of increased sedimentation of the Petaluma River and whether current hydrology modeling accounts for this condition
- Loss of wetlands and riparian habitat

Each of the Master Responses that follow address these concerns in the context of how this information was presented in the Draft EIR, and where appropriate draws distinctions or similarities between the original Project as analyzed in the Draft EIR and the now proposed Revised Project.

Master Response - Shasta Avenue Extension and At-Grade Rail Crossing

The City has received numerous comments about the original Project's proposal to construct an extension of Shasta Avenue from North Petaluma Boulevard westerly across the SMART rail tracks and connecting to the project site. Comments have expressed both opposition and support for this component of the original Project. The following Master Response responds to each of these perspectives about the original Project's proposed Shasta Avenue extension, and clarifies that the Revised Project no longer proposes this roadway improvement.

Original Project

Benefits of Shasta Extension (at-grade crossing over SMART corridor)

The original Project provided access to and from the site via two routes - existing Graylawn Avenue, as well as an EVA at Bernice Court, and a Shasta Avenue extension from Petaluma Boulevard North to Graylawn. With these two primary access points, future trips to and from the site would have been distributed over both routes such that not all traffic would load onto one street. Traffic modeling conducted for the Draft EIR indicated that approximately two-thirds of the traffic generated by new development at the site would use the Shasta Extension to Petaluma Boulevard, and one-third of the trips would use Graylawn Avenue to Payran. From these points, trips would then be distributed throughout the City's street system and to the freeway. Based on this trip distribution, the Draft EIR found that Graylawn Avenue would have experienced an increase of approximately 45 AM peak hour trips, 52 PM peak hour trips and approximately 676 average daily vehicle trips (ADTs).

Based on roadway counts collected in November 2015, Graylawn Avenue carried approximately 954 ADTs. The addition of trips generated by the original Project would have resulted in approximately 1,630 ADTs using Graylawn Avenue (presumed to be 1/3 of all trips). The Draft EIR concluded that the original Project's vehicle trips assigned to Graylawn Avenue could have been accommodated on Graylawn without exceeding the local Residential Road Street Standards of the City of Petaluma (2,000 ADTs) and the Project would not have caused this standard to be exceeded.

The Draft EIR also presented a different scenario whereby the Shasta Avenue Extension would not have been constructed and all traffic generated by the original Project would use Graylawn Avenue only. If all 1,808 ADTs pursuant the original Project were added to existing ADTs on Graylawn, the result (2,762 ADTs) would have exceeded the local Residential Road Street Standard of the City of Petaluma. As noted in the Draft EIR, these City roadway design standards as defined in the Petaluma General Plan 2025 Mobility Report are not CEQA thresholds, and the Draft EIR did not use these standards to identify any CEQA-related environmental impacts. The Draft EIR did include a CEQA-threshold level of service analysis for the intersection of Graylawn Avenue/Payran under this single access scenario. That analysis concluded that this intersection, which currently operates at LOS B during both peak hours, would operate at acceptable LOS C during both peak hours if all traffic generated by the original Project were to be added at this intersection.

Environmental Consequences of the Shasta Extension

As noted in the Draft EIR (page 3-29), City staff had several concerns about the feasibility of the original Project. One of staff's main concerns was that the extension of Shasta Avenue as an at-grade crossing of the Sonoma Marin Area Rail Transit (SMART) tracks would need separate approval by the California Public Utilities Commission (CPUC) and CPUC staff had clearly indicated in several early communications with the City that they would oppose this at-grade crossing. City agreed to conduct the environmental review of the original Project as proposed (i.e., with the at-grade crossing), noting CPUC's jurisdiction for the rail crossing and its expressed opposition.

Based on the analysis presented in the Draft EIR, the original Project's proposed Shasta Avenue extension was found to result in several significant and unavoidable environmental impacts as summarized below.

Safety Hazard

The original Project would have resulted in increased hazards associated with the at-grade rail crossing including traffic, bicycle and pedestrian crossings at an unsafe location, and increased public presence along the rail racks. Construction of a grade-separated structure (per Draft EIR Mitigation Measure Haz-6) was considered potentially infeasible, and this impact was considered a significant and unavoidable impact of the original Project.

Noise from Train-warning Horns

The original Project would have exposed existing and new residents to reasonably foreseeable and significant noise levels associated with warning horns that would be needed at the Shasta crossing. Noise levels from these horns would have resulted in a substantial increase in ambient noise levels in the vicinity. Neither the applicant nor the City of Petaluma could ensure that a Quiet Zone could be established at this crossing (per Draft EIR Mitigation Measure Noise-3). Even with establishment of a Quiet Zone, noise from SMART train horn blowing on an as needed basis, from freight train horn blowing, as well as from potential additional wayside horns at the Shasta crossing would adversely affect both new and existing residences. This was considered a significant and unavoidable impact of the original Project.

Roadway Design Hazard

The original Project was found to result in a substantial increase in roadway hazards and hazards for emergency vehicles accessing the site across the at-grade rail crossing. Roadway design hazards could not be fully avoided with implementation of all at-grade safety measures recommended in the Draft EIR (Mitigation Measure Trans-7B), and the City of Petaluma would not have sole jurisdiction to implement these measures. Mitigation was considered potentially infeasible and this was considered a significant and unavoidable impact of the original Project.

Inconsistency with Bicycle and Pedestrian System Standards

The original Project would have created an inconsistency with adopted City of Petaluma bicycle and pedestrian system plans, guidelines, policies and standards related to the pedestrian and bicycle at-grade crossing. Even with all applicable and appropriate pedestrian and bicycle safety measures recommended in the Draft EIR (Mitigation Measure Trans-9B), the City of Petaluma would not have sole jurisdiction to implement these measures. This was considered a significant and unavoidable impact of the original Project.

Revised Project

In response to the environmental issues associated with the Shasta Avenue's at-grade rail crossing and concerns voiced by the public, the City Planning Commission, the City Council and the CPUC, the Project applicant has proposed a Revised Project that no longer includes a Shasta Avenue extension or an at-grade rail crossing. In modifying the original Project, the Revised Project avoids the significant environmental impacts related to safety hazards, noise from train-warning horns, roadway design hazards and inconsistencies with bicycle and pedestrian system standards. Mitigation measures as recommended in the Draft EIR to address impacts relating to the Shasta Avenue at-graded rail crossing are no longer necessary.

However, the Revised Project now provides primary access to and from the site via Graylawn Avenue only. The previously identified EVA at Bernice Court continues to provide limited secondary access for emergency vehicles and personnel. All trips to and from the site would load onto Graylawn Avenue, with a minor split of traffic at Jess Avenue (see Master Response to Comments on Trip Distribution). Even though the Revised Project is reduced in size, and the total number of vehicle trips is commensurately reduced, the Revised Project will increase traffic on Graylawn by an amount that is greater than traffic assumed under the original Project and presented in the Draft EIR (see Master Response to Comments on Increased Daily Traffic on Graylawn Avenue and Jess Avenue). It should be noted that the Draft EIR (pages 14-67 through 14-70) also included an analysis of traffic impacts without the Shasta Extension at grade crossing, which assumed that all trips would use Graylawn Avenue as the primary ingress and egress (see Master Responses to Comments regarding the Accuracy of Trip Distribution Patterns).

Master Responses Related to Traffic

Vehicle Miles Travelled (VMT)

Pursuant to Senate Bill 743, the Governor's Office of Planning and Research (OPR) released proposed changes to the State's CEQA Guidelines in 2016 that will amend the way transportation impacts are analyzed pursuant to CEQA. Specifically, SB 743 (Public Resources Code Section 21099) required OPR to amend CEQA Guidelines to provide an alternative to Level of Service (LOS) methodology for evaluating transportation impacts. The changes to CEQA Guidelines result in significant changes in how transportation impacts are evaluated pursuant to CEQA. These analytic changes also result in significant changes in how mitigation is imposed through the CEQA process, potentially including measures that seek to reduce or avoid impacts related to vehicle mile travelled (VMT) and/or trip generation, rather than improvements to increase levels of service (LOS) to accommodate increased traffic demands.

SB 743 Section 15064.3(c) provides that, "a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide." The City of Petaluma has yet to determine how these changes to state CEQA Guidelines will be implemented within the City, but the Petaluma City Council's Goals and Priorities Report for 2017/2018, pursuant to their review and amendments to the Petaluma General Plan 2025, include updating CEQA traffic thresholds to transition from LOS to VMT, in keeping with anticipated state CEQA Guidelines. While continuing to make progress on this goal, the City is working towards adopting local thresholds and methodology for VMT analysis consistent with provisions of SB 743 in advance of its mandated date. Since the provisions of SB 743 pertaining to VMT analysis is not mandated until July 1, 2020, a VMT analysis of the Project is not required or included as part of this EIR.

General Traffic Impacts

The City has received numerous comments from member of the public describing their perceptions of traffic, including congestions and delay along the City street system. Based on these perceptions, comments have suggested the traffic analysis prepared for the Draft EIR must be incorrect and does not present a realistic understanding of existing traffic conditions. The purpose of this Master Response is not to refute those perceptions, but to explain how the Draft EIR has relied on objective, quantifiable data and similarly quantifiable thresholds established by the City to report on traffic conditions in the City.

Methodology

As described on page 14-7 of the Draft EIR, traffic conditions at intersections and along roadway segments were assessed using a grading system called level of service (LOS). This qualitative system "grades" traffic flow conditions through an intersection or along a road segment using factors such as speed, travel time, delay and freedom to maneuver. Six "grades" or levels of operation are used, ranging from LOS A (representing the best operating conditions) to LOS F (representing the worst operating conditions). When operating conditions are at design capacity for an intersection or roadway, operations are graded as being at LOS E conditions. When traffic volumes exceed design capacity, stop-and-go traffic conditions typically result and operations are considered LOS F. LOS calculations for intersections are dependent on the type of intersection control device (i.e., a traffic signal, a stop signs or a roundabout).

The methodology used in this LOS grading system is defined in the *Highway Capacity Manual* (HCM) published by the Transportation Research Board,¹ and is consistent with the *City of Petaluma's Guide for the Preparation of Traffic Impact Studies*.²

- For signalized intersections, the methodology determines the LOS grade based on the average "control delay" experienced at the intersection (in seconds per vehicle). Control delay includes initial deceleration delay, queue move-up time, stopped delay and final acceleration. Average control delay for signalized intersections is calculated using Synchro analysis software and correlated to LOS designations.
- For unsignalized (stop controlled) intersections, the methodology also determines the LOS grade based on the average control delay. At two-way or side street stop-controlled intersections, the control delay is calculated for each movement and the LOS is reported based on the single controlled movement with the highest average delay. For single-lane intersections, the control delay is computed as the average of all movements in that lane.
- For freeway segments on U.S. 101, the methodology uses a ratio of volume to capacity (V/C). Ideal freeway capacity is 2,400 vehicles per hour per lane. Segments of U.S. 101 through Petaluma have some features that reduce these ideal capacity flow rates (i.e., heavy vehicles such as trucks and buses, short merging distances for on-ramps, and short interchange spacing). Under these conditions, the capacity is reduced to 2,200 vehicles per hour per lane.

Thresholds

The City of Petaluma has adopted a level of service standard at LOS D. This standard is derived from Petaluma General Plan 2025 policy, as indicated below:

Policy 5-P-10: Maintain an intersection level of service (LOS) standard for motor vehicle circulation that ensures efficient traffic flow and supports multi-modal mobility goals. LOS should be maintained at Level D or better for motor vehicles due to traffic from any development project.

As indicated in Table 14-1 of the Draft EIR, LOS D at a signalized intersection is generally described as conditions where drivers may wait through one red-light indication and traffic queues may develop, but queues dissipate rapidly without excessive delays. The average control delay is between 35 and 55 seconds per vehicle. As indicated in Table 14-2 of the Draft EIR, LOS D at an unsignalized intersection can be generally described as operations with an average control delay of 25 to 35 seconds per vehicle.

Throughout the Draft EIR, LOS D or better is described as being "acceptable". As used in this context, the term "acceptable" is specifically defined as satisfying the General Plan policy's standard LOS D for efficient traffic flow. Any individual's subjective or qualitative perception of "acceptable" traffic conditions may or may not align with the established LOS D standard.

Existing Traffic Conditions and Project Impacts

As demonstrated in Table 14-3 of the Draft EIR, all of the 14 intersections studied in the Draft EIR operate at acceptable levels based on City LOS standards. The intersections of Petaluma Boulevard/Corona Road, Petaluma Boulevard/Washington Street and the East Washington Street/US 101 southbound ramps operate at the City's threshold of LOS D, and all other study intersections currently operate at LOS C or better.

¹ The Transportation research Board (or TRB) is a non-profit organization and a program unit of the National Academy of Sciences, Engineering and Medicine. TRB provides independent, objective and interdisciplinary research and provides professional advice through its policy studies, including the Highway Capacity Manual.

² Guide for the Preparation of Traffic Impact Studies, City of Petaluma, 2007.

The analysis presented in the Draft EIR concluded that all study area intersections would continue to operate at acceptable levels of service with the addition of project-generated traffic. All of the signalized intersections that currently operate at acceptable LOS D or better would continue to operate at LOS D or better if traffic generated by the original Project was added. Similarly, all of the unsignalized intersections that currently operate at acceptable LOS D or better would continue to operate at acceptable LOS D or better if traffic generated by the original Project was added, and the traffic at these unsignalized intersections would not satisfy Caltrans' signal warrant criteria under peak-hour volumes for installation of a new traffic signal.

The Revised Project would generate approximately 45 fewer AM peak hour trips and 58 fewer PM peak hour trips than would the original Project. With less trips generated, the Revised Project would contribute less overall traffic to the roadway network, would have less substantial impacts at intersections throughout the City's roadway network, and would not result in any new or more severe impacts related to intersection level of service than was presented in the Draft EIR.

Accuracy and Applicability of Traffic Counts

The Project's development application process has been under review for more than ten years. In that time, the Bay Area's regional traffic congestion has increased as the economy has boomed and housing options close to jobs have not kept pace. The traffic counts used in the Draft EIR were collected in 2007 and 2008, and again in 2015 when the traffic analysis for the Project was conducted. Members of the public and City decision makers questioned whether the traffic analysis presented in the Draft EIR accurately represented current traffic conditions and/or accurately assessed traffic impacts if the existing conditions were not accurate.

Traffic Counts as Presented in the Draft EIR

As indicated in the Draft EIR (beginning at page 14-9), original peak-period traffic counts were collected at study area intersections in May and October of 2007, and in January 2008. Traffic counts were again collected in November 2015 at 13 of the 14 study intersections. The November 2015 traffic counts collected data for intersection turning movements at each intersection, and were taken during typical weekdays while school was in session. Unusual circumstances were not observed during the traffic count process that would affect traffic conditions. The traffic counts were conducted during typical peak hours for vehicle traffic, between the hours of 7:00 to 9:00 AM, and between 4:00 to 6:00 PM. The peak hour traffic counts and lane configurations were summarized on Draft EIR Figures 14-2A and -2B and documented in Draft EIR Appendix 14A.

The Draft EIR also presented a comparison of traffic volumes as counted in 2007/2008 to the traffic volumes counted in 2015, and a comparison of the resulting intersection LOS at each study intersection (Appendix 14C of the Draft EIR). The 2007/2008 intersection volumes and resulting intersection LOS conditions were generally found to be higher (i.e., more congested) than the more recent 2015 intersection volumes. While certain transportation network and land use changes had occurred since the 2007/2008 data was collected, these changes were not anticipated to change the findings of the traffic study based on the assessment presented in Appendix 14C. Therefore, the 2007/2008 intersection volumes were relied on in the Draft EIR traffic analysis because they provided the more conservative (or worst-case) basis for analysis of Project impacts. One exception was the intersection of East Washington Street/Lakeville Street. No counts were taken at this location in 2007/2008 so a separate count at this intersection conducted in September 2015 was used to analyze impacts at this intersection. These traffic conditions established the existing baseline against which the original Project was evaluated in the Draft EIR.

New Traffic Counts (2019)

New traffic volume and traffic speed data was collected near the site in January and February of 2019 to address the comments and questions about traffic levels. The new traffic count locations are shown on **Figure 4-1**. These intersections were selected due to their proximity to the site. They would experience the

greatest concentration of trips and the greatest potential for a significant impact if traffic existing traffic volumes have changed substantially.

The traffic counts were collected on typical weekdays while school was in session, and when the weather was sunny and without rain. Pneumatic tube counting machines were deployed at three locations to record average daily traffic (ADT) volumes along Graylawn Avenue and Jess Avenue, and an additional machine was deployed on Graylawn Avenue north of Cordelia Drive to record vehicle speed. The counting machines were active for a continuous 72-hour period starting Tuesday January 22, 2019 and ending Thursday January 24, 2019. For technical reasons the traffic counting equipment was placed just north of several houses on Graylawn and Jess Avenues and did not capture counts of vehicle trips from these homes to Payran Avenue. These non-counted homes are estimated to generate approximately 20 to 30 total vehicle trips per day, based on standard Institute of Transportation Engineers' Trip Generation 10th Edition trip generation rates. Trips from these non-counted homes were added manually for LOS calculations (this topic is also briefly discussed in the qualitative discussion of the results of these analyses in the Master Response to Traffic on Graylawn Avenue and Jess Avenue).

Counting cameras were also deployed on Wednesday, January 23, 2019 to capture turning movements made by motorists, bicyclists and pedestrians during typical weekday morning (7 to 9 AM) and the evening peak commute period (4 to 6 PM). These camera-captured turning movement counts were collected at the following four intersections:

- Payran Street/Petaluma Boulevard (Draft EIR intersection #6)
- Payran Street/East Washington Street (Draft EIR intersection #9)
- Payran Street/Graylawn Avenue (Draft EIR intersection #12), and
- Graylawn Avenue/Jess Avenue (new intersection #20)

The first three of these intersections were studied in the Draft EIR. The fourth intersection at Graylawn Avenue/Jess Avenue was not evaluated in the Draft EIR, but was selected to aid in evaluation of potential traffic impacts on Jess Avenue.

Supplemental peak period and 72-hour traffic counts were conducted again in March 2019 at each intersection to confirm that the January counts, which occurred Tuesday through Thursday during the one week without rain during the initial data collection period, were not influenced by the Martin Luther King Jr. holiday (Monday January 21st). The March counts are not substantially different from the January counts (see **Appendix C** to this document), confirming that the January counts adequately represent 2019 conditions.

Traffic Volume Comparison

Each of the new 2019 traffic turning movement counts collected at the three intersections nearest to the site was compared to traffic counts presented in the Draft EIR to determine whether traffic volumes have significantly changed since 2015. The turning movement counts at these three local intersection are summarized in **Table 4-1**.

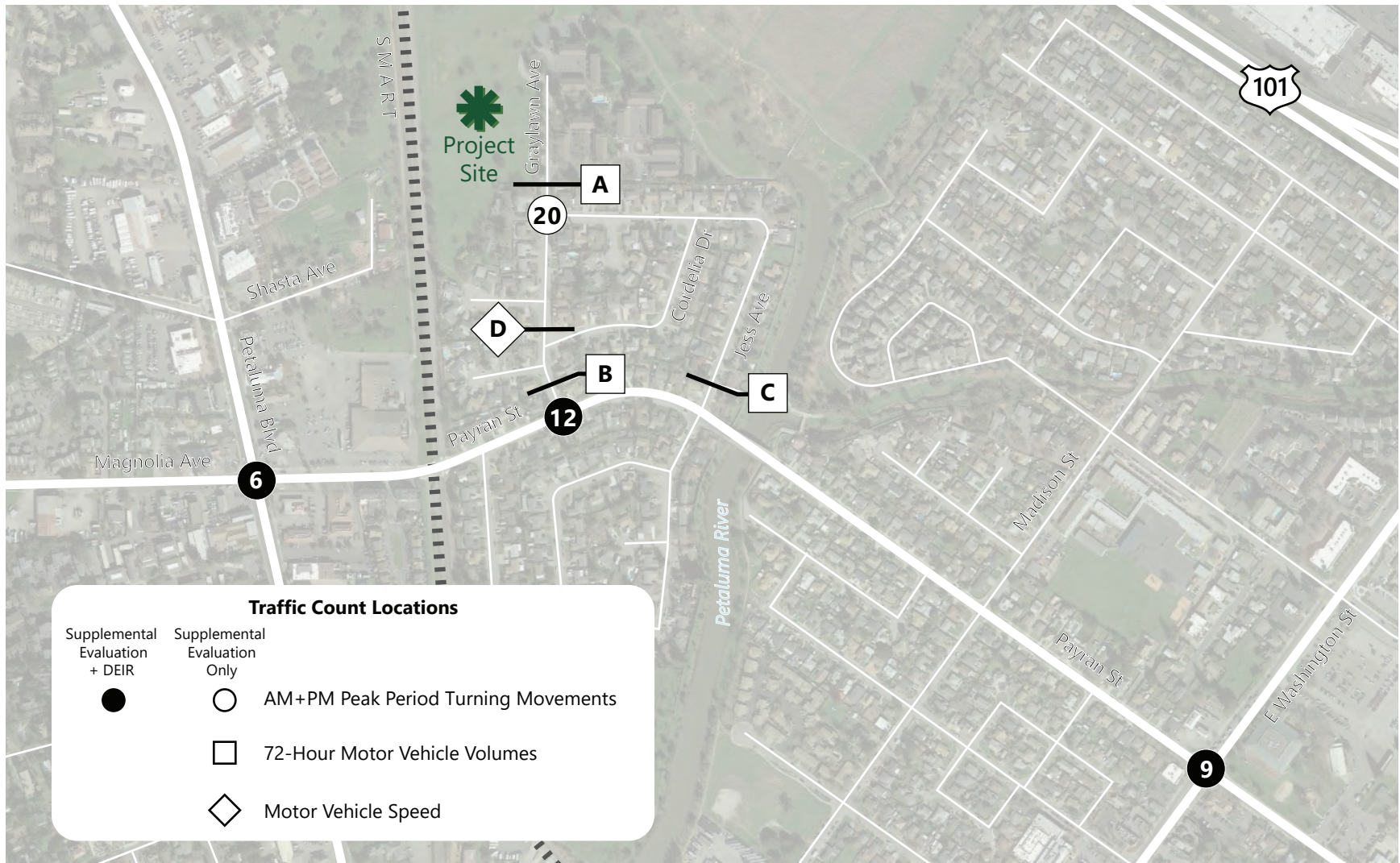


Figure 4-1
May 2019 Traffic Count Locations



Source: Fehr & Peers, May 2019

Table 4-1: Traffic Volume Comparison (Vehicles) at Study Intersections

<u>Study Intersection</u>	<u>DEIR Existing Volumes</u>		<u>2019 Counts</u>		<u>Change</u>			
	<u>AM</u>	<u>PM</u>	<u>AM</u>	<u>PM</u>	<u>Count</u>		<u>Percent</u>	
					<u>AM</u>	<u>PM</u>	<u>AM</u>	<u>PM</u>
6: Petaluma Blvd / Payran St.	2,616	2,961	2,971	2,717	355	-244	14%	-8%
9: Payran St. / E. Washington St.	2,289	3,007	2,344	2,515	55	-492	2%	-16%
12: Payran St. / Graylawn Ave.	586	908	897	817	311	-91	53%	-10%
TOTAL	5,491	6,876	6,212	6,049	721	- 827	13%	-12%

Source: Fehr & Peers, March 2019

As indicated in Table 4-1, traffic volumes at these three intersections have decreased by an average of approximately 12 percent during the PM peak hour, but have increased by an average of approximately 13 percent during the AM peak hour as compared to traffic volumes presented in the Draft EIR. Traffic data presented in the Draft EIR indicated that these intersections were more congested during the PM peak hour than during the AM peak hour, and the 2019 traffic counts now indicate that traffic congestion during the AM peak hour has increased and is now similar to the PM peak hour. One possible reason that traffic volumes adjacent to the site have decreased in the PM peak hour may be due to “peak period spreading”, where the actual traffic volumes during the peak hour do not substantially change but the length of the peak period has increased. The locations where traffic volumes have increased during the AM peak hour are discussed further below.

Payran Street/Graylawn Avenue

At the Payran Street/Graylawn Avenue intersection, traffic volumes during the AM peak period are shown to have substantially increased by approximately 300 vehicles (or by 53 percent). The Draft EIR (relying on the lower traffic volumes during the AM peak hour) indicated that with this lower level of traffic, this intersection operated at LOS B in the weekday AM peak hour, this intersection had excess capacity and that drivers experienced relatively low levels of delay. The higher 2019 traffic volumes during the AM peak hour are similar to traffic volumes presented in the Draft EIR for the PM peak hour. At these similar traffic volumes, the intersection was still shown to operate at LOS B. Therefore, although traffic volumes at this intersection have increased during the AM over the traffic volumes as presented in the Draft EIR, the increase in traffic volumes has not significantly affected intersection operations, which remain at LOS B using data from the 2019 traffic counts.

Under each of the future scenarios presented in the Draft EIR (Pipeline and Cumulative), traffic operations at this intersection were not shown to exceed LOS C during the AM or PM peak hours. This indicates that the change in traffic volumes in the AM peak hour (which are now substantially similar to the PM peak hour) would not substantially affect traffic operations and this intersection would continue to operate at acceptable LOS conditions.

Petaluma Boulevard/Payran Street

The Petaluma Boulevard/Payran Street intersection shows the largest absolute increase in traffic volumes during the AM peak hour when comparing 2015 counts (as presented in the Draft EIR) to current 2019 traffic counts. Based on 2015 traffic counts, this intersection operated at LOS C in the weekday AM peak hour. As

shown in Appendix C, nearly all of the increase in traffic volumes during the AM peak hour occurred in the northbound and southbound through movements, which were not congested and had excess capacity based on 2015 data. The higher 2019 traffic volumes during the AM peak hour at this intersection are similar to traffic volumes presented in the Draft EIR for the PM peak hour, which showed this intersection to operate at LOS C. Therefore, although traffic volumes at this intersection have increased over the traffic volumes as presented in the Draft EIR, the increase in traffic volumes has not significantly affected intersection operations, which remain at acceptable LOS conditions.

Under each of the future scenarios presented in the Draft EIR (Pipeline and Cumulative), traffic operations at this intersection do not exceed LOS C during the AM or PM peak hours. This indicates that the change in traffic volumes in the AM peak hour would not substantially affect traffic operations, and this intersection would continue to operate at acceptable LOS conditions. The effects of existing traffic volume changes on vehicle delay would be minimal, and the traffic impacts at this intersection as presented in the Draft EIR adequately reflects 2019 baseline conditions.

Payran Street/ East Washington Street

The increase in traffic volumes at the Payran Street/East Washington Street intersection shows the least increase in traffic volumes during the AM peak hour when compared to 2015 counts, with a difference of only a 2 percent increase. This minor increase in background traffic would not change the LOS analysis for this intersection as presented in the Draft EIR.

Accuracy of the Trip Generation Rates

City Council and the public questioned whether data used to generate the Project's trip generation forecast was suited to the Project's setting. The Draft EIR estimated project-generated vehicle trips for the original Project based on trip rates obtained from the Institute of Transportation Engineers' (ITE) *Trip Generation 9th Edition Manual*, which contains data based on research conducted throughout the United States over the past few decades for various land use categories, predominantly in suburban settings with limited alternatives to auto travel. These trip rates tend to overestimate vehicle travel in compact urban areas with a mix of land uses, but are generally applicable to suburban settings such as the project site.

The number of vehicle trips generated by the existing Oak Creek Apartments (a low-rise apartment building neighboring the Project site) was used to test whether the ITE trip generation rates provide an accurate estimate of expected local trip generation characteristics. Parking on Graylawn Avenue north of Jess Avenue is restricted to residents and visitors of the Oak Creek Apartments. Therefore, vehicle trips on Graylawn Avenue north of Jess Avenue are most likely associated with the Oak Creek Apartments. The actual number of vehicle trips on Graylawn Avenue north of Jess (per the 2019 traffic counts), divided by the number of occupied units at the Oak Creek Apartments, represents the trip generation rate for this apartment complex. This local trip generation rate can also be used to estimate the number of vehicle trips that the Revised Project would generate. As shown on **Table 4-2**, the actual trip generation rates from the existing Oak Creek Apartments is 6.88 daily tips per unit, 0.58 AM peak hour trips per unit, and 0.68 PM peak hour trips per unit.

Table 4-2: Oak Creek Apartments Trip Rates

<u>Occupied Dwelling Units (a)</u>	<u>Daily Volume</u>				<u>AM Peak Hour</u>				<u>PM Peak Hour</u>			
	<u>In</u>	<u>Out</u>	<u>Total (b)</u>	<u>Rate (b/a)</u>	<u>In</u>	<u>Out</u>	<u>Total (b)</u>	<u>Rate (b/a)</u>	<u>In</u>	<u>Out</u>	<u>Total (b)</u>	<u>Rate (b/a)</u>
76	266	257	523	6.88	8	36	44	0.58	31	21	52	0.68

Source: Fehr & Peers, 2019

These trip rates as calculated for the existing Oak Creek Apartment complex can be compared against estimated trip rates from the 9th Edition of the ITE Manual to assess the relative accuracy of the trip generation rates applied to the original Project and used in the Draft EIR. This comparison also helps to determine trip rates that should be attributed to the Revised Project. The comparison of trip generation rates from the 9th Edition of the ITE Manual (as used in the Draft EIR) to trip generation rates as calculated from the Oak Creek Apartments is shown in **Table 4-3**. Table 4-3 also compares ITE trip generation rates of the recently published the 10th edition of ITE's Trip Generation Manual.

Table 4-3: Project and Revised Project Trip Generation Comparison

<u>Data Source</u>		<u>Daily</u>		<u>AM Peak Hour</u>				<u>PM Peak Hour</u>			
<u>Reference</u>	<u>Size</u>	<u>Trip Rate¹</u>	<u>Trips</u>	<u>Trip Rate</u>	<u>In</u>	<u>Out</u>	<u>Total</u>	<u>Trip Rate</u>	<u>In</u>	<u>Out</u>	<u>Total</u>
DEIR Project ²	278 DU	6.5	1,808	0.50	28	112	140	0.61	111	60	171
ITE 9th Ed.	205 DU	6.5	1,366	0.51	21	84	105	0.62	85	46	131
ITE 10th Ed.	205 DU	7.32	1,591	0.46	22	73	95	0.56	71	42	113
Local Rate ³	205 DU	6.88	1,410	0.58	21	97	119	0.68	84	56	140
Net Change (original Project vs. Revised Project) ⁴	-73 DU	--	-217	--	-6	-39	-45	--	-40	-18	-58

Notes:

1. ITE-based trip rates based on data for fitted curve equations published in the respective version of ITE's *Trip Generation*.
2. Original Proposed Project was 278 units, However the DEIR analysis used trip generation for a 312-unit project to be consistent with previous analyses of the Project and to present a more conservative (worst case) analysis of the Project.
3. From Table 4-2, above
4. ITE *Trip Generation 10th ed.* trip rate was selected to forecast the Revised Project's trip generation because it results in the highest daily trip volume and the most conservative value for the local street capacity analysis.

As demonstrated in Table 4-3, the local trip generation rates from the Oak Creek Apartments do not differ substantially from the trip generation rates used in the Draft EIR as derived from the ITE Trip Generation 9th Edition. The Oak Creek Apartment trip rate of 6.88 daily trips per unit is 0.3 trips per day per unit greater than the ITE 9th Edition rate of 6.5 daily trips per unit (or approximately a 6 percent increase). The trip rate from

the ITE 10th Edition (which is the most recent nationally available data) shows the highest daily trip rate per unit (at 7.32 trips per day per unit), while the Oak Creek Apartment trip rate is the highest during the AM and PM peak hours.

Under either of the three data sources, the Revised Project (at 205 units) would generate fewer vehicle trips than would the original Project as analyzed in the Draft EIR. For purposes of analyzing effects related to the Revised Project's daily traffic on the surrounding roadways, the ITE 10th Edition trip rates were selected as representing the most conservative (i.e., highest trip rate) on a daily basis. Under either the ITE 9th Edition, ITE 10th Edition, or local trip rate, the Revised Project would generate less peak hour traffic and would not create more substantial peak hour intersection LOS impacts as compared to the original Project. As analyzed in the Draft EIR, even at the higher peak hour trips, the original Project was not found to result in significant intersection LOS impacts.

Accuracy of Trip Distribution Patterns

City Council and members of the public asked how much Project-generated traffic would use Jess Avenue and whether this traffic would create a significant impact to traffic operations.

Trips associated with the original Project were assigned to roadways and intersections based on trip distribution assumptions embedded in the traffic model. The expected distribution of trips onto the adjacent roadway network was determined based on evaluation of existing traffic patterns, data included in the City's travel demand forecasting model, and complimentary land uses. For the original Project, two primary points of access and egress were assumed: one at Graylawn Avenue and one at the Shasta Extension over the railroad tracks. The trip distribution assignments for the original Project indicated that approximately two-thirds of the original Project's trips would use the Shasta Extension and one-third would use Graylawn Avenue.

The Draft EIR also presented a scenario whereby the Shasta Avenue Extension would not be constructed. This scenario assumed that all traffic generated by the original Project would instead use Graylawn Avenue, and no trips were assigned to Jess Avenue.

Graylawn Avenue and Jess Avenue are the only two local streets that connect the site to Payran Street, and Graylawn is the more direct route. Drivers generally select the fastest and most direct routes to reach their destinations, but unique circumstances could affect route choice. To test this possibility, turning movement counts were conducted during weekday morning and evening peak-periods at the intersection of Graylawn Avenue/Jess Avenue to determine how existing drivers use each street. Given the adjacency of the Oak Creek Apartments to the project site, existing travel patterns are presumed to be similar to future project-related traffic. As shown in **Table 4-4**, 18 percent of existing drivers arriving at or leaving the Oak Creek Apartments during the AM peak hour used Jess Avenue, and 10 percent of existing drivers arriving at or leaving the Oak Creek Apartments during the PM peak hour used Jess Avenue during the data collection period. This traffic pattern matches observed conditions and daily vehicle counts on each street, which shows that traffic volumes are much lower on Jess Avenue as compared to Graylawn Avenue.

Table 4-4: Oak Creek Apartments Trip Distribution

<u>Street</u>	<u>AM Peak Hour</u>				<u>PM Peak Hour</u>				<u>Average AM + PM Peak Hour Percentage</u>
	<u>In</u>	<u>Out</u>	<u>Total</u>	<u>Percentage</u>	<u>In</u>	<u>Out</u>	<u>Total</u>	<u>Percentage</u>	
Graylawn Ave.	7	29	36	82%	29	18	47	90%	86%
Jess Ave.	1	7	8	18%	2	3	5	10%	14%
TOTAL			44				52		

Source: Fehr & Peers, 2019

Applying the same distribution of trips by percentage to the Revised Project and relying on the local trip rate as calculated from the Oak Creek Apartments, approximately 21 new vehicle trips would use Jess Avenue during the AM peak hour, and 14 new vehicle trips would use Jess Avenue during the PM peak hour. As many as 98 new vehicle trips would use Graylawn Avenue during the AM peak hour, and 126 new vehicle trips would use Graylawn Avenue during the PM peak hour (see **Table 4-5**). This level of increased traffic on Jess Avenue and Graylawn Avenue would not result in any new or substantially different operational traffic impacts at local intersections during peak hours than were disclosed in the Draft EIR.

Table 4-5: Revised Project Peak Period Trip Assignment to Jess and Graylawn Avenue

<u>Trip Rate:</u>	<u>AM Peak Hour</u>				<u>PM Peak Hour</u>			
	<u>Total Vehicle Trips</u>	<u>Percent using Jess</u>	<u>Vehicles using Jess</u>	<u>Vehicles using Graylawn</u>	<u>Total Vehicle Trips</u>	<u>Percent using Jess</u>	<u>Vehicles using Jess</u>	<u>Vehicles using Graylawn</u>
10 th Edition	95	18%	17	78	113	10%	11	102
Local Rate	119		21	98	140		14	126

Source: Fehr & Peers, 2019

Increased Daily Traffic on Graylawn Avenue and Jess Avenue

The City has received numerous comments about the amount of additional traffic that would be added to Graylawn Avenue and Jess Avenue, and that this additional traffic would result in adverse safety and quality of life implications. The following Master Response responds to these concerns and clarifies the difference between the types of traffic impacts considered significant under CEQA, versus traffic impacts that may adversely affect the livability on local residential streets.

As noted in the Draft EIR, the City's roadway design standards are not CEQA thresholds, and the Draft EIR did not use these standards to identify any CEQA-related environmental impacts. Rather, these design standards provide a relative means of measuring the qualitative effects of increased vehicle traffic on the street environment and adjacent residential uses. According to the Petaluma General Plan 2025 Mobility Report, Graylawn Avenue is identified as a local residential road. Pursuant to the City of Petaluma Department of Engineering's *Street Design and Construction Standards & Specifications*, local residential roadways are intended to carry up to a maximum average daily traffic (ADT) of 2,000 trips, serving up to 200 dwelling

units.³ Exceeding this design standard is not considered a significant environmental impact, but does indicate that the City and the project applicant should consider implementation of traffic calming measures to improve and enhance the livability of the adjacent neighborhood.

The applicant has voluntarily agreed to incorporate traffic calming measures as part of the Revised Project, and a conceptual Traffic Calming Plan has been prepared (see **Appendix A**). The Traffic Calming Plan outlines several traffic calming concepts that could be pursued in a manner consistent with the City's goals for traffic calming in residential neighborhoods, as outlined in the City's 2025 General Plan. Traffic calming concepts included in the conceptual Traffic Calming Plan include:

- Speed feedback signs that have dynamic digital displays which show the speed of the approaching motorist
- Additional signage and/or pavement markings to warn or inform people of roadway conditions, including speed limits
- Median islands located in the center of the roadway to narrow travel lanes, prevent wide turns and slow vehicle speeds
- Curb extensions that narrow the travel way at intersections or mid-block locations to reduce vehicle speeds, enhance pedestrian connectivity, safety and comfort, and create additional space for landscaping and pedestrian amenities
- Intersection curb extensions at Jess and Graylawn Avenue intersections at Payran Street, to enhance pedestrian connectivity along Payran Street
- A traffic circle at the intersection of Graylawn Avenue and Jess Avenue to control turning and through movement vehicle speeds
- Street tree planting implemented corridor-wide, where right-of-way allows

All scenarios of the Traffic Calming Plan include traffic-calming elements for both Graylawn and Jess Avenues, to avoid creating a situation where a traffic-calming program on Graylawn Avenue causes drivers to divert onto Jess Avenue. The strategies presented within the Traffic Calming Plan are intended to be conceptual in nature and are not intended for immediate implementation without a community engagement process followed by detailed engineering design. The applicant shall coordinate with City Public Works staff on the preferred Traffic Calming approach and design (anticipated to be similar in nature to Concept 3 as shown in the conceptual Traffic Calming Plan of **Appendix A**), and the preferred Traffic Calming Plan shall be shown on the plan set for SPAR review. As part of the SPAR process, the Planning Commission will review and consider approval of a final Traffic Calming Plan, specifically determining which traffic calming measures will ultimately be implemented. The Public Improvement Plan set for the Revised Project shall include the final Traffic Calming Plan.

Average Daily Traffic Levels

Table 4-6 summarizes the recent traffic volume data that was collected on Graylawn and Jess Avenue in 2019, and compares this 2019 data to the average traffic volumes for Graylawn Avenue as obtained in 2015.⁴ Based on current (2019) traffic counts, the two-way ADT (i.e., total trips on the road, counting trips in both directions) on Graylawn Avenue ranged between 1,112 and 1,161 vehicle trips per day, with a three-day

³ City of Petaluma Department of Engineering, Street Design and Construction Standards & Specifications, Street Standards Design and Application Guidelines (page 3), May 1999

⁴ 2015 counts were documented in the memorandum Graylawn Data Collection Summary and Roadway Capacity Analysis (Fehr & Peers, April 2016 as included in the Appendices to the Draft EIR)

average of 1,142 ADT. The two-way ADT on Jess Avenue ranged between 404 and 441 vehicle trips per day, with a three-day average volume of 419 ADT (all traffic count data are attached as Appendix C).

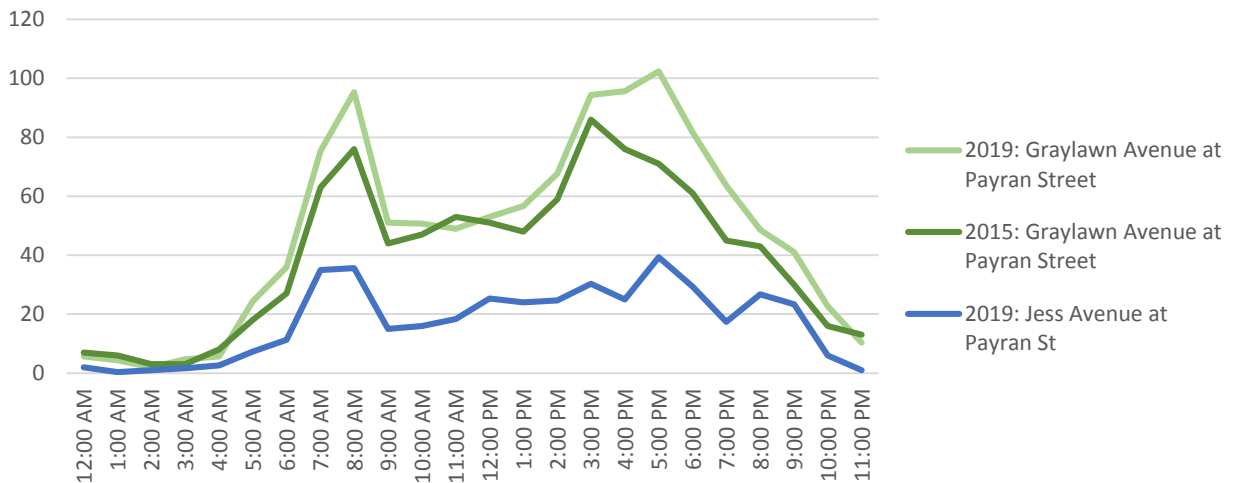
Table 4-6: ADT Count Comparison for Graylawn and Jess Avenues

<u>Count Year</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Three-Day Average</u>
<u>Graylawn Avenue</u>				
2019	1,152	1,161	1,112	1,142
2015				954
			Net Change:	+ 188
<u>Jess Avenue</u>				
2019	441	404	411	419

Source: Fehr & Peers, 2019

Since 2015, the three-day average traffic volume on Graylawn Avenue has increased by 20%, from 954 vehicles per day in 2015 to 1,142 vehicles per day in 2019. Most of this increase in traffic is generated during the AM and PM peak periods, with the peak traffic conditions occurring over a longer period in the evening, as shown in **Table 4-7**. However, traffic operations during the peak hour have not substantially changed at the intersection of Graylawn Avenue/Payran Street. Therefore, the CEQA-related traffic impact analysis as presented in the Draft EIR remains accurate and adequate.

Table 4-7: Three-Day Average Traffic Volume by Time



With the addition of traffic from the Revised Project, the ADT on both Jess Avenue and on Graylawn Avenue will increase. As shown on **Table 4-8**, daily traffic generated by the Revised Project would cause the City's

local street standard of 2,000 ADT on Graylawn Avenue to be exceeded, but would increase total ADT on Jess Avenue to only approximately one-half of the City’s local street standard. This analysis is based on the trip generation data for the Revised Project from Table 4-5 using the higher *Trip Generation 10th Edition* daily trip rates and the trip distribution split from Table 4-6. This conclusion is not fundamentally different from that presented in the Draft EIR, which indicated that with the addition of traffic generated by the original Project (assuming no Shasta Avenue Extension), traffic on Graylawn Avenue would exceed the design standard. Exceeding the design standard is not a significant environmental impact, but does indicate that the City and the project applicant should consider implementation of traffic calming measures to improve and enhance the livability of the adjacent neighborhood. A conceptual plan for traffic calming has been prepared for the Revised Project (see **Appendix A** of this document). Appropriate traffic calming measures will be established by the Planning Commission pursuant to SPAR.

Table 4-8: Traffic Volumes versus Design Standards at Graylawn and Jess Avenues

<u>Scenario</u>	<u>Graylawn Avenue</u>	<u>Jess Avenue</u>
Existing ADT	1,142	419
Revised Project Contribution to ADT	<u>1,368</u>	<u>223¹</u>
Existing plus Revised Project ADT	2,510	642
Exceed Design Standard of 2,000 ADT?	Yes	No

Notes:

1. 14 percent of daily Project vehicles are estimated to use Jess Avenue based on the average of the AM and PM peak periods presented in Table 4-5.

Traffic Speeds

The maximum speed at which 85 percent of motorists are traveling along a given distance (or the 85th percentile speed) is a standard engineering measurement of traffic speed. Neither Graylawn nor Jess Avenue have a posted speed limit, therefore the prima facie speed limit is 25 miles per hour (MPH). As noted in the 2025 Mobility Report, desired speeds for local residential streets are less than 25 mph.⁵ Speeds of 25 mph are used in this analysis as the 85th percentile speed for determining if vehicle speeds exceed the limit and warrant consideration of traffic calming measures.

Data for average vehicle speeds was collected at a mid-block location on Graylawn Avenue (between Payran Street and Jess Avenue), during a 72-hour mid-week period to capture “free-flow” driver speeds, independent from stopping and turning maneuvers at intersections. As shown in **Table 4-9**, the 85th percentile vehicle speeds on Graylawn Avenue exceed the 25-mph threshold as outlined in the 2025 Mobility Report.

⁵ City of Petaluma, Petaluma General Plan 2025 (Table 5.2-2 Typical Attributes of Different Street Types), March 2008

Table 4-9: Graylawn Avenue 85th Percentile Vehicle Speed

<u>Location</u>	<u>Northbound</u>	<u>Southbound</u>
Graylawn Ave. between Cordelia Ct. & Bernice Dr.	28.4 mph	29.4 mph
Exceed 25 mph 85 th percentile speed?	Yes	Yes

Source: Fehr & Peers, 2019

Although not required as mitigation measure for a CEQA-defined impact on the environment, implementation of traffic calming measures on Graylawn Avenue would help address conflicts with the City's design standard for residential streets. A conceptual Traffic Calming Plan has been prepared for the Revised Project (please see **Appendix A** to this document), to be implemented on Graylawn and Jess Avenue, where traffic volumes are projected to exceed the City design standards for livable streets and where traffic speeds typically exceed 25 mph.

Master Responses Regarding Flooding

The City has received numerous comments expressing concern that the Project will exacerbate existing flooding conditions along reaches of the Petaluma River. The following Master Responses provide information to address the range of flood-related questions and comments on the Draft EIR, as well as information that is not specific to the project or its analysis but rather pertains to the cumulative effects of citywide flood control efforts.

Background

Prior Flood Control Improvements

The Draft EIR (beginning at page 11-2) provides a summary from the City's General Plan that described flooding conditions along the Petaluma River. That summary noted that floods in the Petaluma River Basin normally last 3 to 4 days and typically occur between December and March. Significant flooding events have occurred in Petaluma in 1982, 1983, 1986, 1995, 1996, 1998, 2005 and 2014. The largest flood of record in the City of Petaluma occurred in January 1982, a significant flood event occurred in December 2005 and recent flooding occurred in January of 2017. Several areas in Petaluma have historically experienced significant flooding, including the Payran Street neighborhood adjacent to the project site.

The Draft EIR summarized a number of major efforts initiated by the City to address these flooding problems. Between 1997 and 2008, nearly \$40 million in improvements along the Petaluma River Flood Control Project were completed. These improvements included:

- replacement of the Lakeville and Payran Street bridges
- construction of the U-shaped channel and trapezoidal channel between the Lynch Creek confluence to below Lakeville Street
- construction of a constriction weir just upstream of Lynch Creek
- removal and replacement of the mainline railroad bridge at Lakeville Street, construction of the approaches to the mainline railroad bridge, removal of the railroad spur bridge downstream of Lakeville Street and construction of the industry railroad spur, and
- construction of the Sheetpile Wall Project directly adjacent to, and upstream of the replaced railroad trestle bridge on Lakeville Street (completed in 2015)

Existing 100-Year Floodplain Boundaries

The Draft EIR presented FEMA Flood Insurance Rate Maps (FIRMs) effective as of February 19, 2014. These maps reflect the reduced 100-year floodplain boundaries that have resulted from the City's flood control improvements. These FIRMs relied on the City's stormwater monitoring model (XP-SWMM), including its accurate topographical data, and reliance on almost 100 years of Petaluma rainfall data and previous flood events.

According to these 2014 FIRMs, a majority of the Payran neighborhood was removed from the highest risk flood zone (or Zone AE) with implementation of the Petaluma Flood Control Project. However, some properties on Jess Avenue, Cordelia Drive, West Payran Street and Pidgeon Court remain in the high-risk Flood Zone AE. The U.S. Army Corps of Engineers and City of Petaluma have completed all planned flood control improvements to the Petaluma River in the Payran area, and the Army Corps is working to finalize and certify this 30-year Flood Control Project. Once certified, it is anticipated that most or all properties in this area will be removed from the high-risk flood plain. In the meantime, the City applied for and received approval from FEMA for a special flood zone designation called "A99". The A99 designation is for areas that have received substantial flood improvements, but where flood control projects are not yet complete or not yet accounted for in FEMA mapping.⁶

The Draft EIR (Figure 11-1) also presented the boundaries of the FEMA 100-year flood boundaries at and near the site based on the 2014 FIRMs. A larger-scale image of that same Draft EIR figure is shown on **Figure 4-2**, specifically indicating where the AE zone applies to the project site, and where the A99 flood zone designation is applicable to portions of the adjacent Payran/Jess/Graylawn neighborhood.

⁶ City of Petaluma, letter to Petaluma Homeowners and Residents within the Floodplain regarding Updated Flood Insurance Rate Maps Become Effective, February 17, 2014

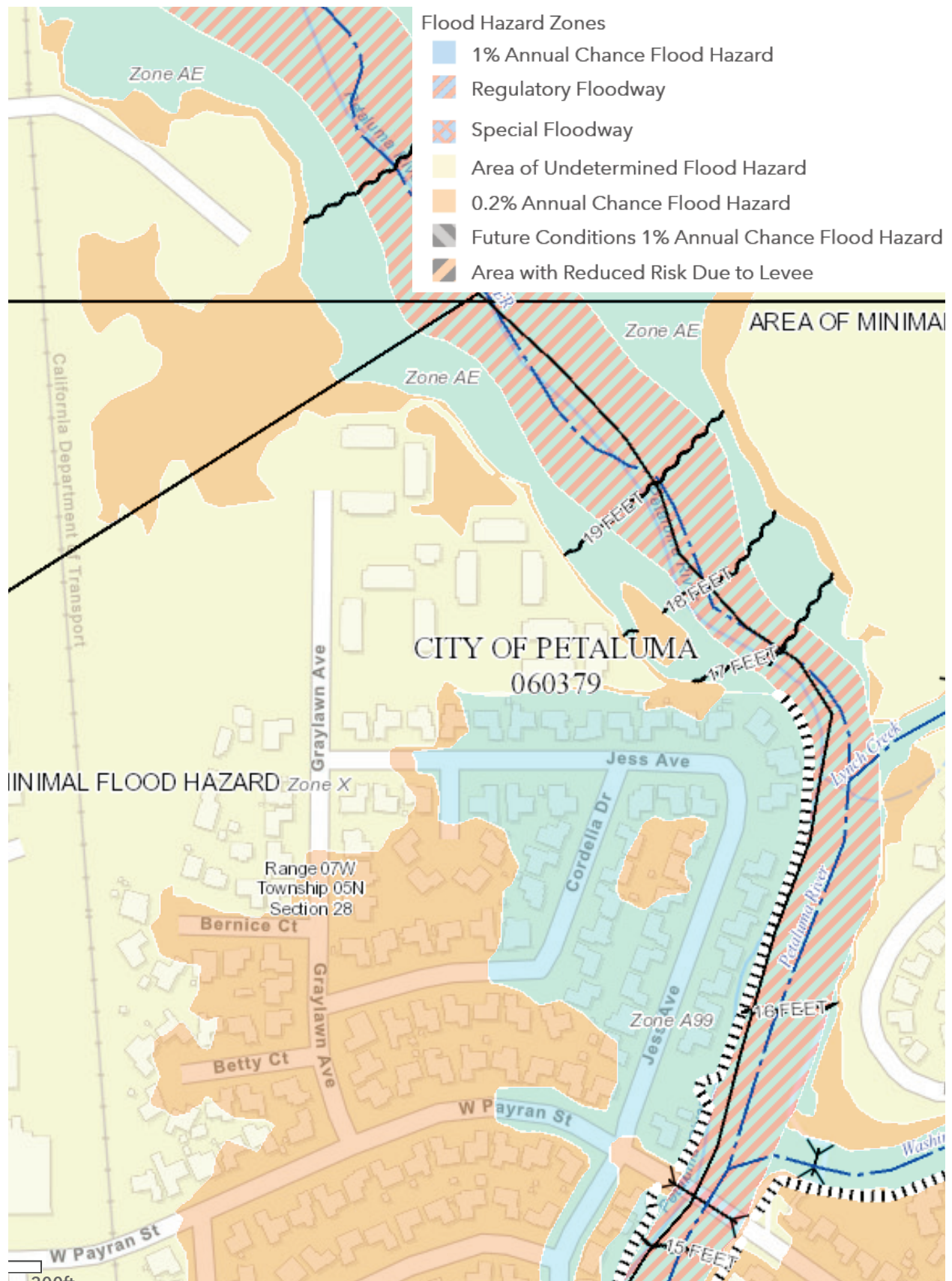


Figure 4-2
2014 FEMA Floodplain Designations,
Payran Neighborhoods



Source: FEMA Flood Insurance Rate Maps,
February 2014

Cumulative Flood Control and Management Provisions

The City of Petaluma General Plan EIR concluded that cumulative development would increase drainage flows because of increased impervious surfaces. New streets, parking lots and rooftops will prevent natural drainage and infiltration of storm water through the soil, and runoff will increase significantly when sites are paved and the capacity for surface water infiltration is reduced. To reduce the potential for exacerbated flooding in the future, the City adopted ordinances and General Plan policies that seek to reduce flooding to the greatest extent feasible. These ordinances and policies provide an approach to flood control that is applicable to all cumulative development projects (including development of the project site). This approach includes the following:

- No additional development is permitted on lands within a 200' setback from the centerline of the Petaluma River within the City's Urban Growth Boundary.
- Properties upstream of the Corps weir and below the confluence of Willow Brook Creek (which include the Project site) are to include a Petaluma River Corridor (PRC) set-aside for the design and construction of a flood terrace system to allow the River to accommodate a 100-year storm event within a modified River channel.
- Properties within the Petaluma watershed and outside of the City of Petaluma (i.e., upstream of the City boundaries) should not be modified in any manner that reduces stormwater storage capacity. Responsible public agencies should work to preserve and expand detention basin capacity within the watershed to maintain or reduce peak discharge volumes.
- New development within the floodplain shall adhere to a zero-net fill policy to preserve and enhance floodplain capacity and to ensure no detrimental impact to downstream flows, including increases in peak discharge volumes in the downstream areas.
- Where appropriate, new development shall implement zero-net runoff, and assess site-specific impacts and identification of mitigations.

Cumulative Effects of General Plan Policy Implementation

The Draft EIR (starting at page 11-36) presented a cumulative analysis that evaluated the relative benefits of increased upstream stormwater detention and river terracing. That cumulative analysis demonstrated that combining upstream detention with terraced riverbank grading provides for the most significant reduction in the River floodplain boundary of approximately 183 acres as compared to base flood flows and FEMA's February 2014 floodplain boundaries. The Draft EIR also compared different cumulative scenarios (e.g., terracing without upstream detention and upstream detention without terracing), but these different scenarios did not achieve the same level of benefits in terms of reductions in floodplain boundaries. The most significant reductions in water surface elevations throughout the River can be achieved if all future cumulative development within the City and subject to General Plan policies, as well as non-City property in the upstream watershed, were to implement policy and ordinance requirements that would provide for the following:

- development setbacks from the centerline of the Petaluma River
- construction of flood terrace systems in downstream reaches (upstream of the constriction weir)⁷
- preservation and expansion of upstream detention basin capacity⁸, and
- achieving a net-zero increase in peak discharge volume, where appropriate

⁷ The City's Denman Reach Terracing Project implements this policy.

⁸ Denman Phase 4 consists of a 10-acre detention basin and implements this policy.

The Draft EIR (Figures 11-7 through -9) presented the projected 100-year flood boundaries under a scenario with cumulative upstream detention and terracing in all downstream reaches to the point of the constriction weir. These figures showed certain (mostly upstream) areas that would receive reductions in floodplain boundaries, and certain (mostly downstream) areas that would receive minor increases in floodplain boundaries under this cumulative scenario. A larger-scale image of the same Draft EIR figure is shown on **Figure 4-3**, specifically indicating the anticipated reductions in base flood elevations within portions of the adjacent Payran/Jess/Graylawn neighborhood under this cumulative scenario (i.e., with upstream detention, and terracing in all downstream reaches including the project site).

Hydrology-Related Pros and Cons of River Terracing

Members of the public and certain Planning Commissioners and City Councilmembers have raised questions about the wisdom of the City of Petaluma's approach to addressing flooding conditions as embedded in the General Plan policies described above. These comments are not specific to the Project or the Draft EIR, but rather pertain to overall citywide planning direction for flood control. Many of these comments refer to analysis presented in the Draft EIR as well as the separate analysis of the Denman Terrace project, demonstrating that terraced grading results in increased water surface elevations at downstream reaches of the River, including in the downtown Petaluma area. Although this issue is not specific to the Sid Commons project, if the City were to consider changes to its overall approach for flood control specifically pertaining to terraced grading, such a change would have substantial implications on the Sid Commons project. Based on City staff direction pursuant to existing General Plan policies, the Sid Commons project (both the original Project and now the Revised Project) includes a required river terracing program.

Potential Cumulative Flood Control Approaches

As summarized above and as presented in the Draft EIR (starting at page 11-36), the relative benefits of increased upstream stormwater detention and river terracing provide for significant reductions in citywide water surface elevations under the 100-year flood scenario. Hydrology modeling of this combined citywide approach demonstrates that certain areas (mostly in the upstream reaches of the River) would receive reductions in floodplain boundaries, and certain areas (mostly in the downstream reaches of the River and including downtown) would receive minor increases in floodplain boundaries. Overall, this combined approach of upstream detention and terraced channel widening would result in a reduction of the citywide River floodplain boundary by approximately 183 acres as compared to base flood flows. Based on these results, the General Plan policy direction provides for upstream detention combined with River terracing.

The Draft EIR (Table 11-5) also presented the cumulative citywide implications of alternative flood control strategies including terracing only, upstream detention only, and detention with terracing only in the reaches of the River upstream of the Petaluma Outlet Mall. As re-printed below as **Table 4-10**, this comparison demonstrates the relative benefits and associated downsides of each approach. Under each scenario that includes upstream detention, the increases to the downstream floodplain are very marginal (i.e., approximately one-tenth of 1% increase to the floodplain representing less than a 1-acre increase in floodplain area). Conversely, the upstream benefits are substantial (i.e., approximately a 20% or more decrease to the floodplain, and a decrease of between 140 and 183 acres in floodplain area).

Legend

• XP-SWMM Nodes

— Stream Centerlines

▭ Parcels

▨ Buildings

- - - City Limits

■ Floodplain Area Removed

■ No Change

■ Floodplain Area Added

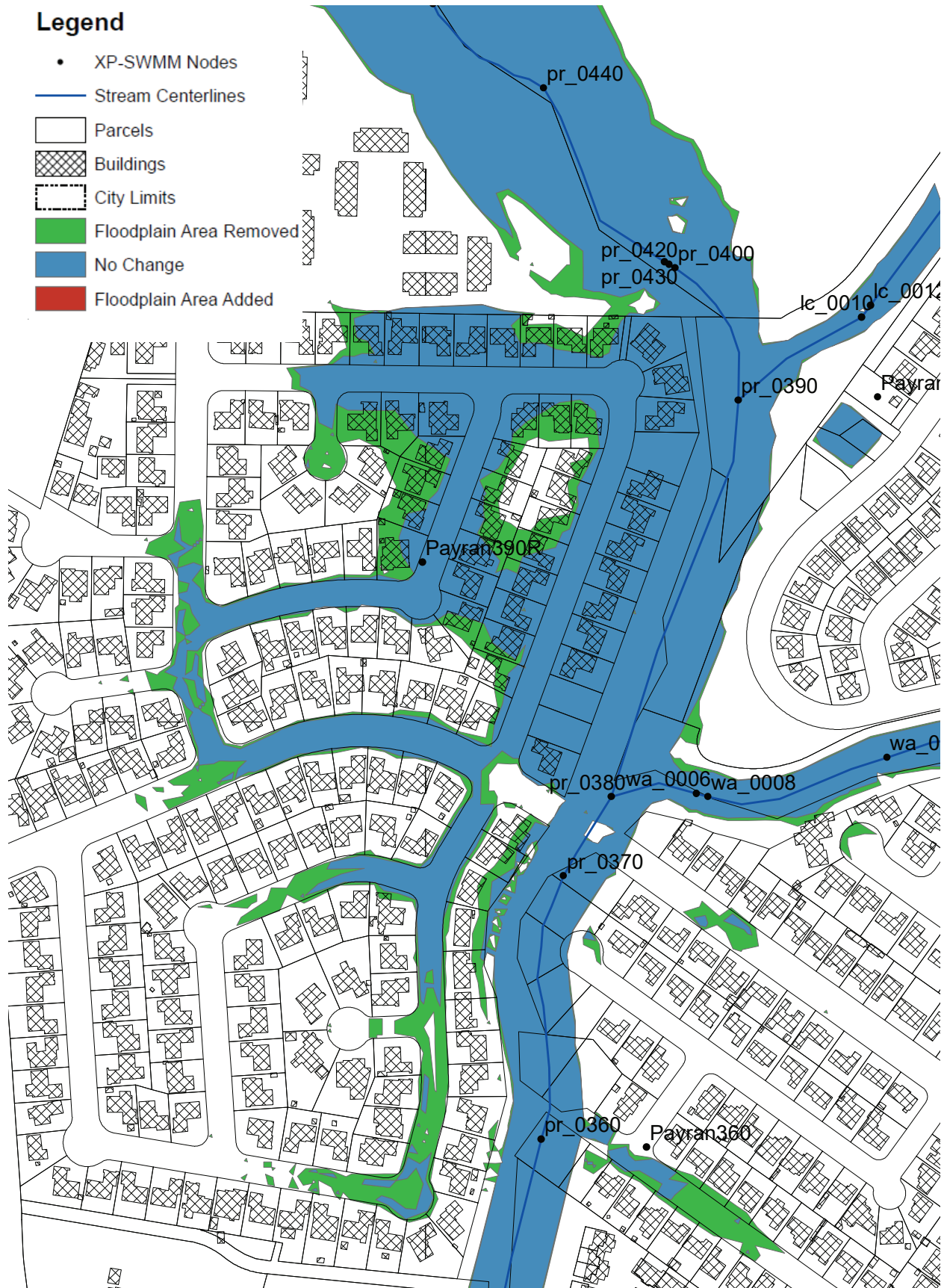


Figure 4-3
Cumulative Detention and Terraced Grading Effects
on Base Flood Boundary at Payran Neighborhoods



Table 4-10: Change in Floodplain Boundary and Area, by Scenario (from Table 11-5 of Draft EIR)

	<u>Increase ²</u>		<u>Decrease ²</u>	
	<u>Percent Increase in Floodplain Boundary</u>	<u>Area (acres)</u>	<u>Percent Decrease in Floodplain Boundary</u>	<u>Area (acres)</u>
Terracing Only	0.7%	4.9	8.3%	60.0
Detention Only	0.1%	0.8	19.5%	140.9
Terracing upstream of Mall (only), and Detention	0.1%	0.9	23.3%	168.3
Terracing and Detention	0.1%	0.9	25.3%	182.9

Notes:

1. Comparison is based on visible area shown on Figure 11-8 (per Appendix 11A)
2. "Increase" from Base condition means additional flooding (red polygons of flood boundary graphics); "decrease" means a reduction (green polygons)

The Draft EIR (Figures 11-7 through -9) presented the projected 100-year flood boundaries under the cumulative scenario with upstream detention and terracing in all downstream reaches, and this same image is presented as an enlarged version for the lower reaches of the River in the Downtown Petaluma area (see **Figure 4-4**).

Assumed Detention

Under each of the "with detention" scenarios, the following detention basin concepts were provided by the City for inclusion in the hydrology model:

- Offline detention of Willow Brook Creek upstream of the railroad crossing, totaling 202.5 acre-feet (5 feet deep over 40.5 acres)
- Offline detention of Lichau Creek downstream of Petaluma Hill Road, totaling 238 acre-feet (5 feet deep over 47.6 acres)
- Two parallel detention basins in the vicinity of the "railroad ditch" between Willow Brook Creek and Corona Road, each totaling 23 acre-feet (5 feet deep over 4.6 acres)
- Offline detention of the Petaluma River in the vicinity of Bailey Road, totaling 150 acre-feet (5 feet deep over 30 acres)
- Excavation of a portion of the Benson property to provide additional detention of approximately 15 acre-feet, and
- Excavation of the Hummel property to provide additional detention of approximately 24 acre-feet

Unless each of these upstream detention basin concepts is implemented, the full benefits under any of the "with detention" scenarios for cumulative citywide flood control will not be fully achieved.

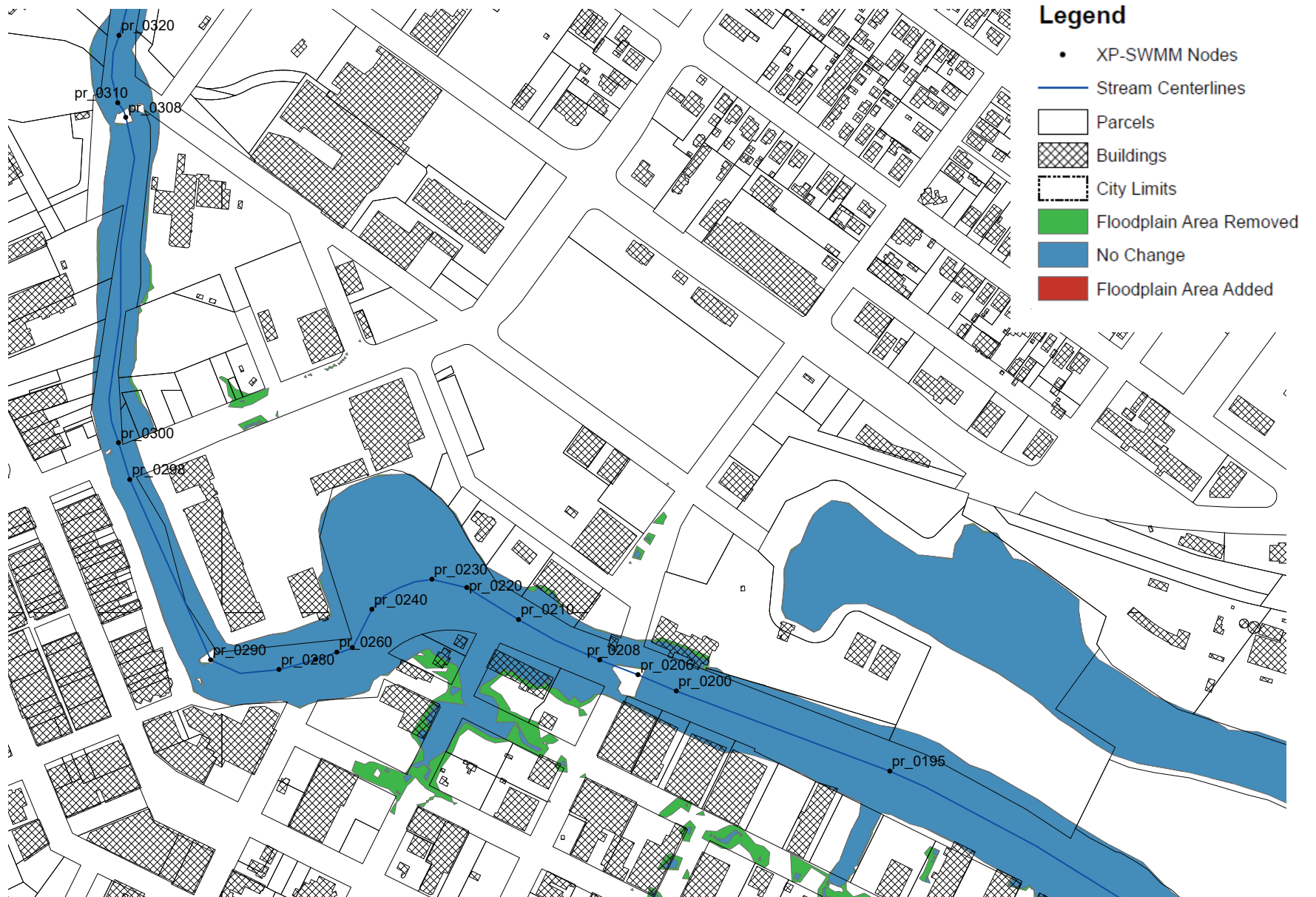


Figure 4-4
 Cumulative Detention and Terraced Grading Effects on Base Flood
 Boundary, Lower Petaluma River



Implications of No Detention

Table 4-10 also demonstrates that a scenario including River terracing only (i.e., no upstream detention) has substantially greater implications related to increases in the floodplain within certain downstream reaches of the River, including downtown. Floodplain increases under such a scenario are substantially greater (i.e., nearly 1% increase to the floodplain representing almost 5 acres of increased floodplain area), and the upstream benefits are substantially reduced (i.e., only approximately an 8% decrease to the floodplain and only about 60 acres of decrease in floodplain area). The Draft EIR Appendix 11A presented the projected 100-year flood boundaries under the cumulative scenario with terracing only, and this same image is presented as an enlarged version for the lower reaches of the River in the Downtown Petaluma area (see **Figure 4-5**). As indicated in Figure 4-5, even under this less optimal scenario, the implications of increased flooding in the downtown are minor.

Water Surface Elevations under Different Scenarios

Two separate CEQA documents prepared by the City to date have provided analysis of the effects related to River terracing. These CEQA documents include the CEQA document for the Denman Terracing Phase 3 study (a separate terracing project upstream of Corona Road) and the Sid Commons project. Both of these analyses have documented a minor increase in downstream Petaluma River water surface elevations as compared to base flood flows as being attributable to River terracing. These documented minor increases in water surface elevations at downstream locations appear to be attributable to the increase in capacity of the River channel due to terracing and its ability to convey increased flows downstream. A comparison of the relative change (increase or decrease) in water surface elevations at several selected locations (or nodes) along the River demonstrate the individual effects of each of these terracing projects (see **Figure 4-6** for select node locations along the River). These changes are also compared to the estimated changes in water surface elevations under cumulative buildout scenarios with and without upstream detention, as shown in **Table 4-11**.

Table 4-11: Relative Change in Water Surface Elevation (feet), by Project and per Cumulative Scenarios

		<u>Denman Phase 3</u> ¹	<u>Sid Commons</u> ²	<u>Cumulative (Detention plus Terracing)</u> ³	<u>Cumulative (Terracing only)</u> ³
700	Upstream of Old Redwood Hwy.	- 0.20	0	- 0.81	- 0.25
650	Downstream of N. Petaluma Blvd.	- 0.69	0	-1.18	- 0.78
540	At Capri Creek	0	- 0.15	- 1.20	- 1.06
500	Upstream of Sid Commons	0	- 0.42	- 1.25	- 0.28
400	Downstream of Sid Commons	0.01	0.02	- 0.67	0.20
300	At E. Washington Street	0.03	0.02	- 0.48	0.26
230	At C Street	0.03	0.02	- 0.44	0.27
195	At F Street	0.02	0.02	- 0.34	0.23

Sources:

1. West Consultants, Inc., Phase 3 Denman Reach Terracing Hydraulic Evaluation, March 18, 2015
2. West Consultants, Inc., Sid Commons Hydraulic Evaluation, February 22, 2017
2. West Consultants, Inc., Detention and Terracing Evaluation Results, December 22, 2016

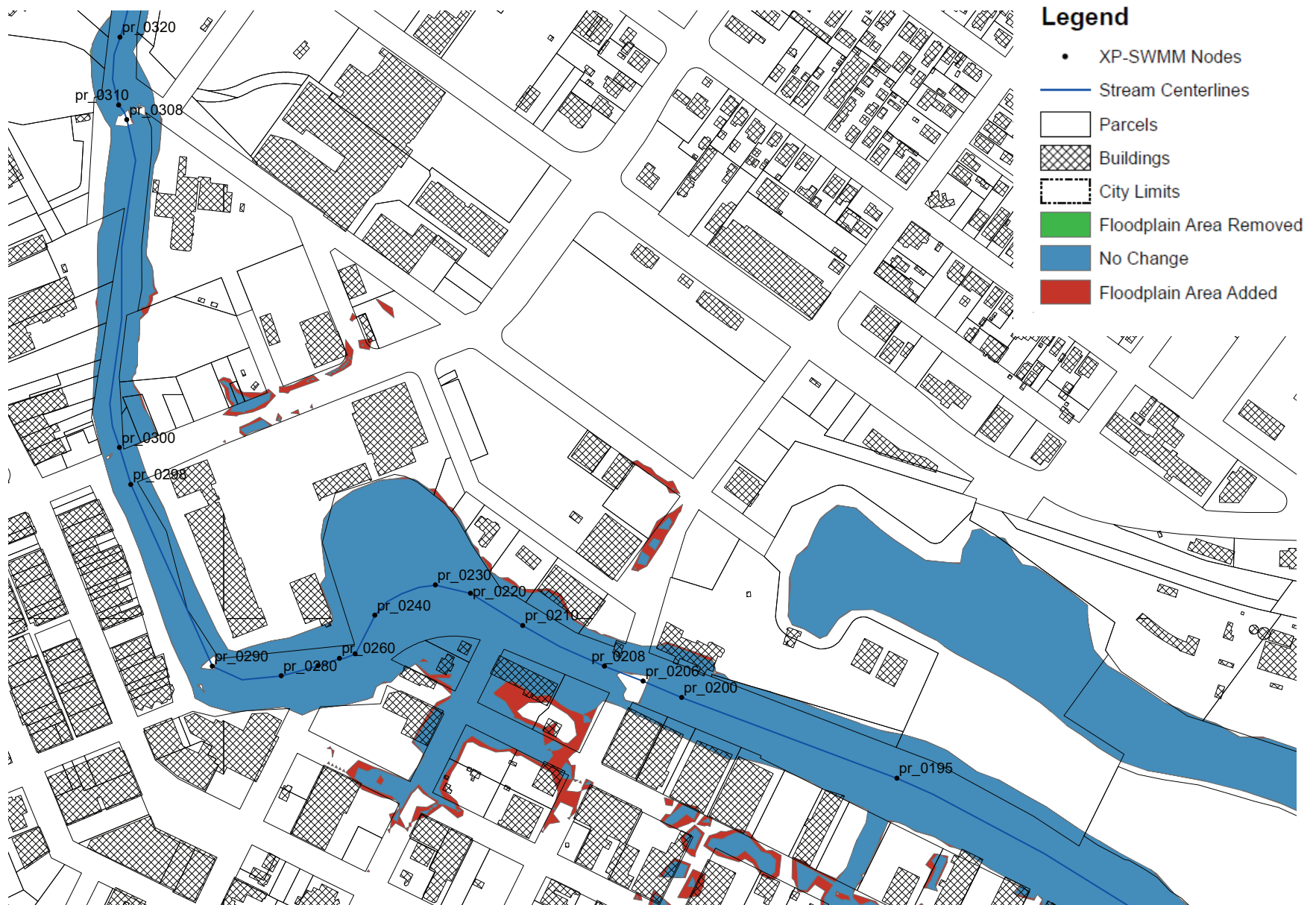


Figure 4-5
 Cumulative Effects on Base Flood Boundary with Terraced Grading Only,
 Lower Petaluma River



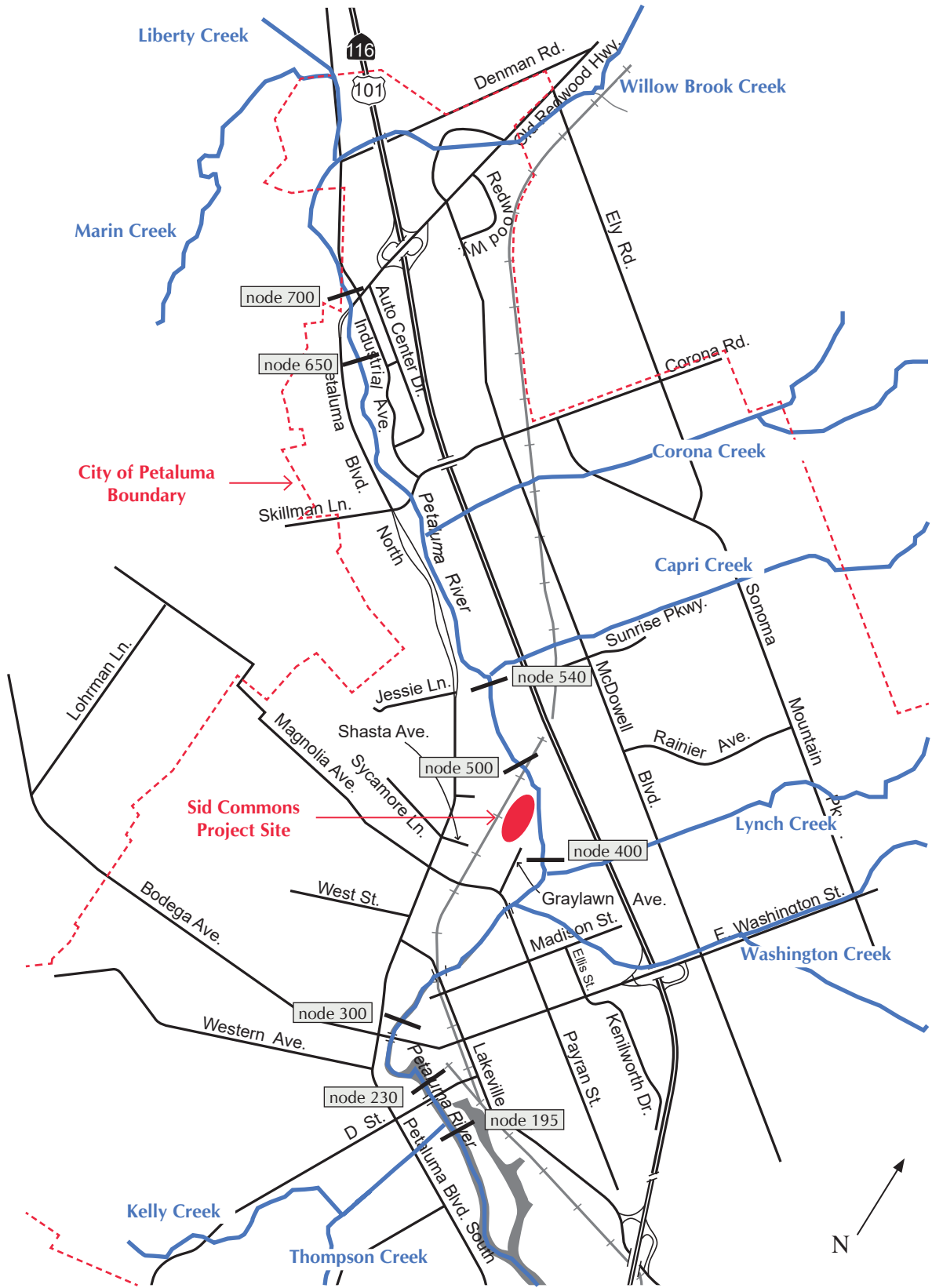


Figure 4-6
Hydrology Model “Node” Locations along Petaluma River



The sample size of only two recent projects is too small to identify a definitive future outcome of the General Plan's flood control program. Both of these projects (Denman phase 3 and Sid Commons) include terraced grading designed to convey a 100-year storm event, and the Denman Phase 3 analysis in 2015 did not yet include detention, which was added as Phase 4 of Denman.⁹ The comparisons presented in Table 4-11 represent only a conservative and partial temporary progress towards the preferred cumulative scenario of terracing combined with upstream detention (i.e., this comparison does not include the Denman Phase 4 detention), wherein the water surface elevations decrease at all locations. Although this small sample size does indicate that localized terraced grading to increase the River channel capacity does achieve localized reductions in upstream water surface elevations, the full benefits of the General Plan's flood control program will not be fully achieved without commensurate upstream detention projects to reduce flood flows.

Of the approximately 675 acre-feet of expected upstream detention capacity assumed in the City's hydrology model (see Assumed Detention, above), only about 40 acre-feet of planned detention capacity is located on sites within the City's jurisdiction. Achieving the more substantial increased detention capacity needed to meet the General Plan goals will require increased coordination and cooperation with Sonoma County and the Sonoma County Water Agency. The larger detention facilities that are part of the General Plan strategy (i.e., at Willow Brook Creek, at Lichau Creek, at the railroad ditch, and near Bailey Road) are all located outside of the City boundaries.

However, even under partial implementation efforts, the minor increases in water surface elevations attributed to the Denman Phase 3 and Sid Commons terracing projects show very little (0.02 to 0.03 feet, or approximately one-quarter inch) to no measurable increase on downstream water surface elevations and/or floodplain boundaries.

Project-Specific Effects on Flooding

General Plan flood control and management policies that apply to properties upstream of the Corps weir and below the confluence of Willow Brook Creek specifically apply to the Project site. Based on these requirements, any development on the project site is required to provide a Petaluma River Corridor set-aside for the design and construction of a flood terrace system that allows the River to accommodate a 100-year storm event. Accordingly, the original Project (and now the Revised Project) includes a terraced grading plan for the section of the riverbank located within the site and extending approximately 300 feet downstream along the adjacent Oak Creek Apartments parcel. Terracing of the River channel is designed to maintain citywide 100-year flood conveyance in conformance with the General Plan policies and seeks to balance the multiple goals of the Petaluma River Access and Enhancement Plan, specifically including improving the flood conveyance capacity and flow efficiency of the River, while preserving and enhancing habitat value and providing public access.

Relationship of Development at the Site to Citywide Flood Control Policies

Both the original Project and now the Revised Project (as described in Chapter 2 of this Final EIR) provide a 200' setback from the centerline of the Petaluma River, consistent with General Plan policy. No new apartment structures pursuant to either the original Project or the Revised Project are located within the 100-year floodplain of the Petaluma River.

⁹ The fourth phase of the Denman Reach project provides off-line detention basins to capture peak flows during storm events, and sediment removal near the Corona Road Bridge. The detention basins at Denman Reach will provide approximately 10 acre-feet of storage. According to analysis performed by WEST Consultants, Inc., the detention basins provided water surface elevation reduction through the Denman Reach area with lesser reductions downstream, and the sediment removal provides a larger water surface reduction in the area of Corona Road, but slightly increased levels downstream. Combined, the detention and sediment removal have a net result of decreased peak flow and water surface elevations.

Both the original Project and the Revised Project include a terraced grading plan along the riverbanks fronting the Project site, consistent with General Plan policies to improve flood capacity and flow efficiency. The terraced grading plan for the original Project would have resulted in removal of approximately 21,140 cubic yards of soil from along the western riverbank. Like the original terracing plan, the Revised Project's terracing plan would also result in a net removal of soil from the western riverbank, thereby expanding the channel capacity and lowering the adjacent base flood elevation. The Revised Project's terraced grading plans have been slightly modified to enable greater preservation of trees, resulting in an approximate 4 percent decrease in expanded channel capacity, from 21,140 cubic yards of excavation to 20,250 cubic yards of excavation. Both terraced grading designs provide for a flood terrace system that allows the River to accommodate a 100-year storm event within the modified River channel.

Stormwater Runoff

Petaluma General Plan Policy 8-P-2 calls for retention of stormwater storage capacity on those properties within the Petaluma watershed that are subject to periodic surface water inundation and containment, and that are outside of (i.e., upstream of) the City of Petaluma. This policy also calls for responsible public agencies with jurisdiction over these upstream properties to preserve and expand detention basin capacity within the upstream watershed to maintain or reduce peak discharge volumes. This policy does not apply to the project site, which is within the City and downstream of identified upstream containment areas. General Plan Policy 8-P-33 calls for new development to implement zero-net runoff "where appropriate" based on site-specific assessment of impacts.

The Draft EIR included this site-specific assessment (Impact Hydro-4, beginning at page 11-26) and determined that zero-net runoff at the site was not appropriate. Analysis presented in the Draft EIR (beginning at page 11-26) concluded that, because of the site's location within the downstream portion of the watershed, existing runoff from the site leaves the site and passes downstream in the River prior to the onset of larger peak flows generated further upstream. Storing runoff on-site would delay flows leaving the site such that they would coincide with the arrival of peak flows from the upper watershed, which could increase flood levels in the River. The Draft EIR indicates that Projects immediately adjacent to the River in this area of the watershed can minimize their flood impacts by letting their runoff leave the site and enter into the downstream drainages as quickly as possible.

As indicated in the Draft EIR, the majority of the Project site is underlain by low permeable soil formations of Yolo and Clear Lake clays. Generally, these soil types are poorly drained, runoff rates are high and permeability is slow to very slow. As such, stormwater does not drain off the site quickly but also does not infiltrate (or seep into the ground) quickly. Instead, stormwater tends to spread and pond on the surface until the ground is saturated, and then runs off the site towards the River.

Development of the site with residential land use will create new impervious surfaces that will result in an increase in both the rate and amount of surface runoff from the site. The original Project would have resulted in a total of approximately 364,730 square feet of new impervious surface area generating increased runoff. The original Project did not provide on-site stormwater runoff detention to contain this increased runoff. Rather, increased runoff from the original Project was to exit the site and enter directly into the River after being treated for water quality. The Draft EIR presented the results of the City's XP-SWMM hydrology model to quantify potential increases in Petaluma River flows resulting from increased runoff due to the original Project. The Technical Appendix to the Draft EIR provided detailed information about the original Project's contribution to peak flood flows, as presented in **Table 4-12**, below.

Table 4-12: Original Project's Contribution to Increased 100-Year Flood Flow (cfs),

<u>Node</u>	<u>Location</u>	<u>Base Flood Flow</u>	<u>Base plus Original Project Flood Flow</u>	<u>Original Project Contribution</u>	<u>% Original Project Contribution</u>
700	Upstream of Old Redwood Hwy.	5,380	5,380	0	0%
650	Downstream of N. Petaluma Blvd.	5,279	5,279	0	0%
550	Upstream at Outlet Mall	7,765	7,752	-13	-0.17%
500	Upstream of Sid Commons	7,778	7,778	0	0%
460	Project Site at outfall	7,798	7,806	8	0.10%
400	Downstream of Sid Commons	8,710	8,737	24	0.27%
340	At Payran Street	9,868	9,911	43	0.43%
300	At E. Washington Street	9,894	9,936	42	0.42%
230	At C Street	10,013	10,048	35	0.35%
195	At F Street	10,369	10,404	35	0.34%

Draft EIR, Appendix 11-A, West Associates

As indicated in the Draft EIR, the increased flood flows attributable to the original Project near its outfall location (node 460 in Table 4-12, above) show a minor increase in the peak 100-year storm flow in the River of about one-tenth of 1 percent. This increased flow was found to be within the limits of model tolerances and was not considered significant. Increased runoff due to the original Project, combined with increased capacity of the river channel from the original Project's terraced grading would result in similar, minor increases in 100-year storm flows downstream of the site (less than one-half of 1% at all measured locations). The increased flows at further downstream locations appear to be attributable to the increased capacity of the River channel and its ability to convey increased flows downstream.

The Revised Project will result in a total of approximately 362,430 square feet of impervious surface area (or marginally less coverage of impervious area as compared to the original Project). This similar increase in impervious surface will generate similar runoff from the site as was modeled for the original Project, and will result in a similar, less than significant increases in peak 100-year storm flows in downstream reaches of the River.

Water Surface Elevation

The Draft EIR (beginning at page 11-27) presented the results of hydrology modeling conducted to quantify the flooding effects resulting from development of the original Project, including its increased runoff from new development and the terraced grading plan along the River. That analysis indicated that the original Project would have reduced water surface elevations of the 100-year flood within the site and would have reduced water surface elevation of the 100-year flood in certain reaches upstream of the site. It also found that the original Project would have resulted in a slight increase in water surface elevations of the 100-year flood at certain downstream reaches. The Draft EIR Table 11-4 presented the results of the City's XP-SWMM hydrology model to quantify potential changes in water surface elevations of the 100-year peak flood resulting from the original Project (including both increased runoff and terraced grading), as summarized in **Table 4-13**.

Table 4-13: Original Sid Commons Project's Effects on 100-Year Water Surface Elevations (WSE, in feet NAVD88)

<u>Node</u>	<u>Location</u>	<u>Base WSE</u>	<u>Base plus Original Project WSE</u>	<u>Original Project Contribution (feet)</u>	<u>% original Project Contribution</u>
700	Upstream of Old Redwood Hwy.	34.43	34.43	0	0%
650	Downstream of N. Petaluma Blvd.	33.57	33.57	0	0%
540	Upstream at Outlet Mall	23.46	23.32	-0.15	-0.64%
500	Upstream of Sid Commons	21.93	21.52	-0.42	-1.91%
460	Project Site at outfall	19.94	19.57	-0.37	-0.36%
400	Downstream of Sid Commons	16.55	16.58	0.02	0.12%
340	At Payran Street	12.07	12.10	0.02	0.16%
300	At E. Washington Street	10.68	10.70	0.02	0.19%
230	At C Street	10.09	10.12	0.03	0.30%
195	At F Street	9.92	9.24	0.02	0.22%

Draft EIR, Table 11-4 and DEIR Appendix 11-A, West Associates

The modeling results indicate a reduction in water surface elevation just upstream of the site of just over 4/10 of a foot, and a reduction in water surface elevation further upstream of the site of just over one-tenth of a foot. The results also indicate a minor increase in the elevation of peak water surfaces downstream by an average of approximately 0.02 feet (or between 1/4 and 1/3 inch). These increases were found to be within the accuracy tolerances of the hydrology model and would result in less than significant increases to the current downstream 100-year floodplain boundaries.

The Draft EIR (Figures 11-4 through 11-6) presented the projected 100-year flood boundaries after implementation of the original Project. These figures did not include any other cumulative detention or terracing efforts, only those changes attributed to the original Project. A larger-scale image of the same Draft EIR figure is shown on **Figure 4-7**, specifically indicating the anticipated changes in base flood elevations within portions of the adjacent Payran/Jess/Graylawn neighborhood that would result from terraced grading within the site. A larger-scale image of the Draft EIR figure indicating the changes to the base flood elevations within lower reaches of the River in the Downtown Petaluma area that would result from terraced grading within the site is shown in **Figure 4-8**.

As was disclosed in the Draft EIR, the minor increase in downstream Petaluma River water surface elevations was also previously documented as part of the Denman Terracing Phase 3 study (a separate terracing project upstream of Corona Road). Therefore, an additional evaluation was conducted for the Draft EIR to consider the effects of both the approved Denman Phase 3 terracing project and the original Project's proposed terracing. This evaluation found maximum water surface elevations to be lower than those elevations previously reported for the 2012 Denman Phase 3 terracing project evaluation. The results of this combined evaluation indicate that the maximum water surface elevation with both the Denman terracing and the original Project's terracing projects in flood-prone areas such as C Street and 1st Street in downtown would be lower than previously identified in the approved 2012 Denman Phase 3 terracing project only. Therefore, impacts due to a change in the surface flood elevation as a result of the original Project were found to be less than significant.

Legend

• XP-SWMM Nodes

— Stream Centerlines

▭ Parcels

▨ Buildings

▭ City Limits

■ Floodplain Area Removed

■ No Change

■ Floodplain Area Added

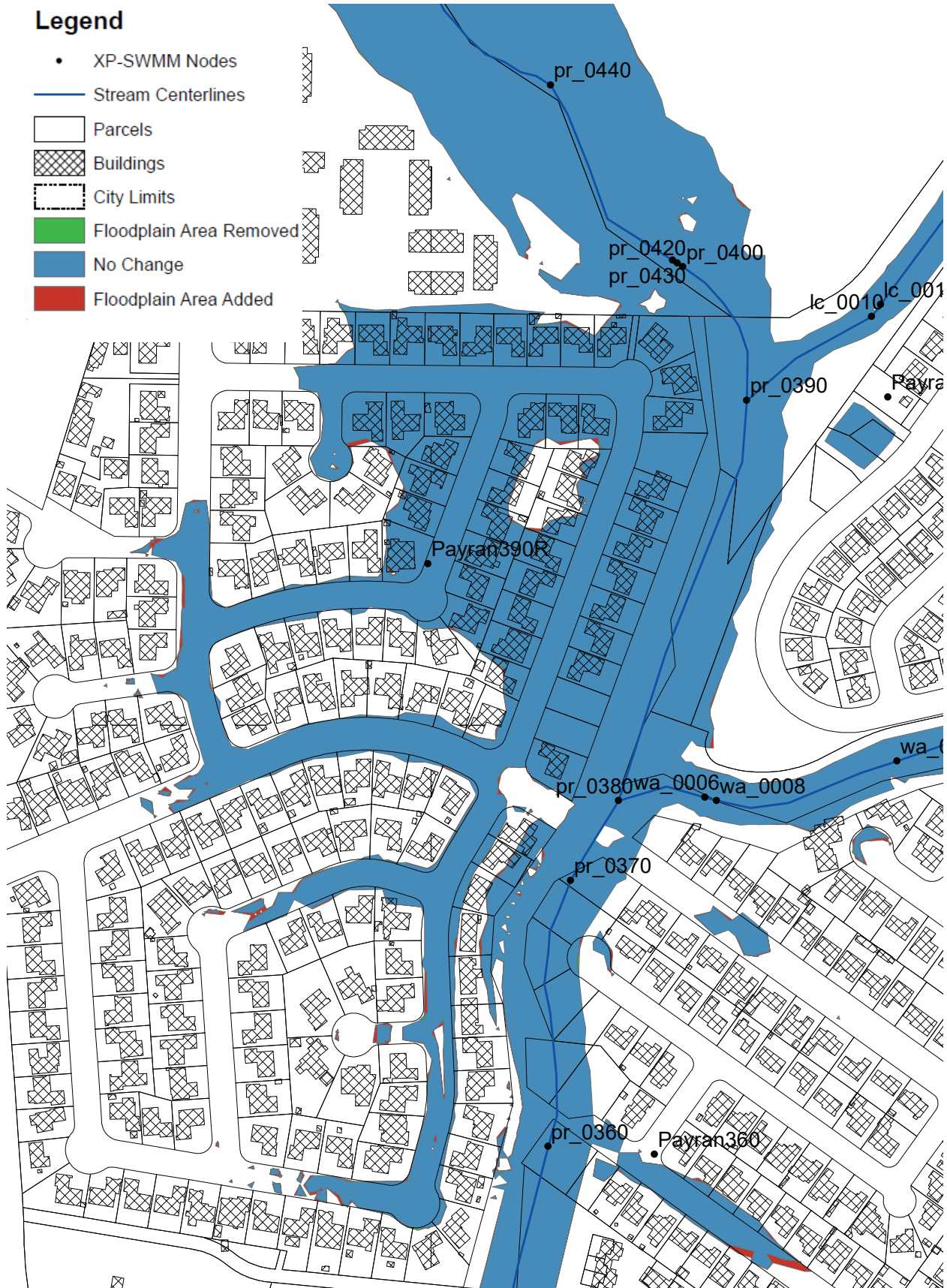


Figure 4-7
Sid Commons Terracing Effects on Base Flood
Boundary at Payran Neighborhoods



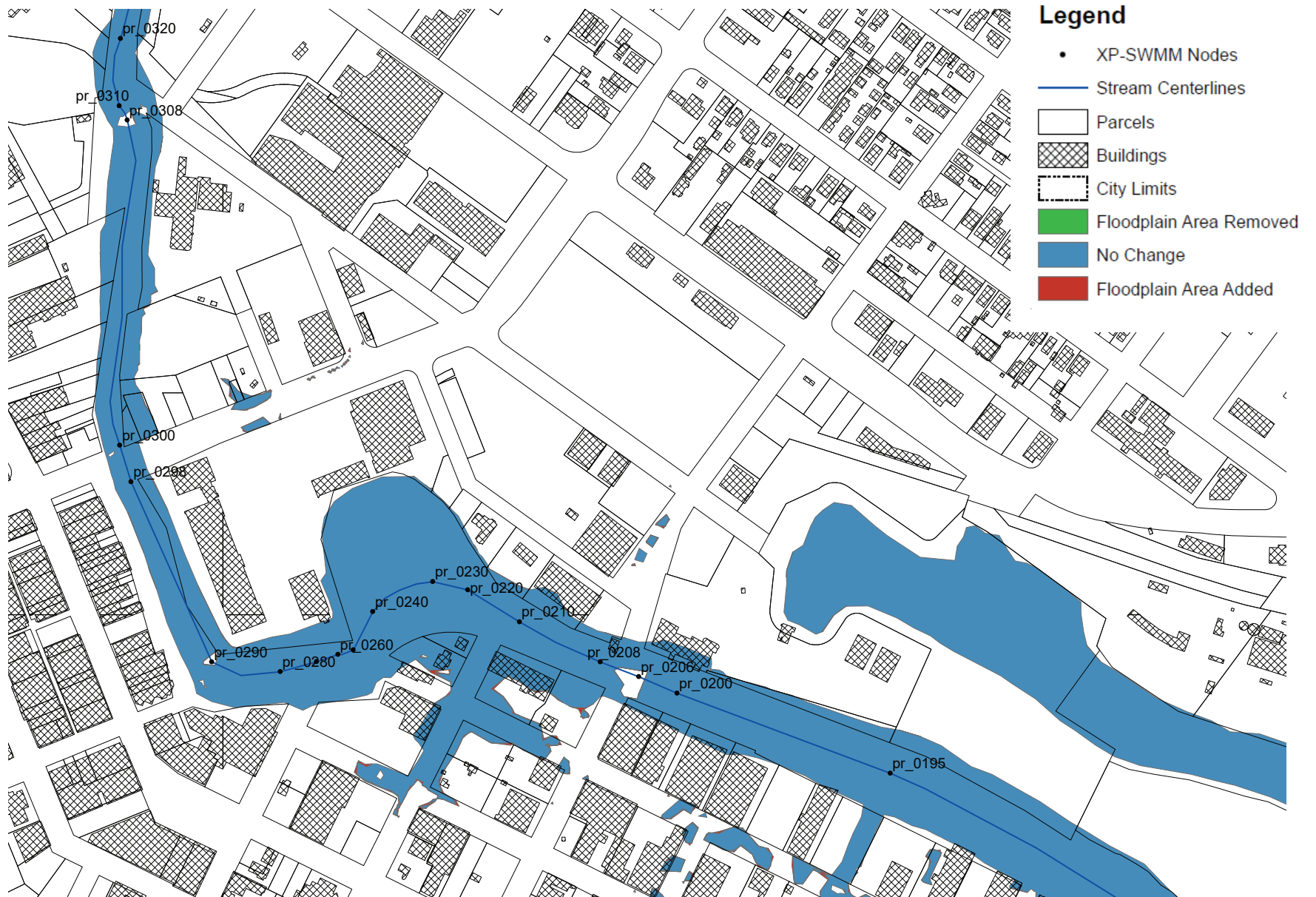


Figure 4-8
 Sid Commons Terracing Effects on Base Flood Boundary, Lower
 Petaluma River



Like the original Project, the Revised Project includes a terraced grading plan designed to convey 100-year peak flows in the River. The Revised Project's terraced grading plans result in an approximate 4 percent decrease in expanded channel capacity (from 21,140 cubic yards of excavation, to 20,250 cubic yards of excavation). This modified grading scheme would result in the same reductions in water surface elevations under 100-year flood conditions, with commensurate reductions in 100-year floodplain boundaries upstream and adjacent to the site, and similar slight increase in water surface elevations and less than significant additions to the current 100-year floodplain boundaries downstream of the site.

River Sedimentation

The City has received numerous comments from the public, Planning Commissioners and City Council members about the effects of increased levels of sediment in the Petaluma River, and questioned whether the hydrology modeling presented in the Draft EIR adequately addressed the effects of River sedimentation.

Background

A thorough examination of the historical hydrology and ecology of the Petaluma River watershed is provided in the *Petaluma Valley Historical Hydrology and Ecology Study*. This Study finds that profound landscape changes have affected ecosystem functions and decreased the overall ecosystem services that the River's watershed once provided. Included among the factors that continue to threaten the Petaluma River watershed over the coming decades include, *"erosion and sedimentation, driven by a combination of urban and agricultural development, vegetation removal and hydrologic changes . . . throughout the watershed."*¹⁰

A separate study of the Petaluma River describes erosion as, *"a natural process that is an important component of landscape and channel evolution. However, urban development and agricultural land management within the watershed can exacerbate natural erosional processes. The increased erosion creates excessive volumes of sediment that, when delivered to the Petaluma River can degrade water quality and can impact beneficial uses."*¹¹

The California State Water Resources Control Board (WRCB) publishes a list of the state's impaired water bodies. The 2010 WRCB list identifies the Petaluma River as being impaired by a number of pollutants, but specifically including sediment. This listing identifies the source of sediment pollution as being construction and land development, and urban runoff and storm sewers.¹² Additionally, sediment in the Petaluma River is influenced by tidal activity, which carries sediment from San Pablo Bay upstream twice a day and deposits sediment in the turning basin and along the River margins.

Sediment Deposition

Certain effects of increased erosion and sedimentation are well known to the City of Petaluma. The deposition of sediment has long been evident near the River channel mouth to the San Pablo Bay, affecting the overall channel gradient and surface flow regime, and limiting watercraft navigation because of lowered water depth. For decades, the US Army Corps of Engineers had conducted operations and maintenance activities that dredged the River channel to 200-feet in width and to a depth of 8 feet mean lower low water (MLLW) elevation. Although the maintenance dredging cycle was to be conducted every three to four years, the last time the channel flats were dredged was in 1998 and the last time the River channel was dredged was in 2003. Since then, federal funds have not been made available to award a maintenance contract for

¹⁰ San Francisco Estuary Institute and Aquatic Science Center, *Petaluma Valley Historical Hydrology and Ecology Study*, March 2018

¹¹ Aquatic Science Center, *Petaluma River Impairment Assessment for Nutrients, Sediment/Siltation, and Pathogens*, March 31, 2010

¹² State Water Resources Control Board, Final 2010 Integrated Report (CWA Section 303(d) List / 305(b) Report)

needed dredging.¹³ The lack of dredging could have substantial impacts on the City's flood control measures and may compound revenue losses to the local economy from watercraft and waterfront-based businesses.

Increased sedimentation also results in buildup of silt and sediment within the river channel, especially where bridges structures or river bends enable buildup of sediment to occur. The City's current Denman Phase 4 Project includes acquisition of a flood-prone parcel located on the Denman Reach of Petaluma River, creation of additional flood water storage in a detention basin and/or terracing, revegetation and habitat enhancement, and removal of an approximately 8,000 cubic yard sediment plug from the River in the vicinity of the Corona Road bridge crossing. The purpose of the entire Denman Reach Project (Phases 1 through 4) is to restore flow-carrying capacity of the River and manage sediment buildup.¹⁴

Other Adverse Effects of Increased Sedimentation

Excessive sediment delivery to the Petaluma River can also have many other adverse effects on the physical River channel, causing changes in its geometry, habitats, landform, and water and sediment transport capabilities.

- Sediment buildup in the River channel bed can cause an increase in overall channel width, exposing the riverbanks to faster and deeper water during high flow events and potentially causing instability and even further erosion.
- Changes in River flow due to sediment may undercut established riparian vegetation and ultimately may reduce the quality of the riparian corridor.
- Excess sediment can have adverse effects on fish communities by degrading potential spawning gravels, affecting the food supply for salmonids like steelhead, and already low springtime surface flows may be decreased by an aggraded channel bed, limiting the ability of fish to out-migrate.
- Excess sedimentation can also partially contribute to frictional resistance that water experiences when passing over land and channel features. An increase in frictional resistance in the River's flow can cause a decrease in the velocity of floodwaters flowing through the River channel.¹⁵

Impacts and Mitigation Requirements of the Project

Although not the focus of most comments about cumulative River sedimentation, it is important to note that mitigation measures and compliance with applicable regulatory requirements such as the city's erosion control ordinance and compliance with storm water pollution prevention (SWPPP) measures will reduce the Project's contribution to cumulative River sedimentation to levels of less than significant, as indicated below.

Construction Period

As disclosed in the Draft EIR, when the Project site is prepared for development the earthwork required to establish roads, building sites and to implement the river terrace grading will expose soils that are prone to erosion, and can cause large quantities of sediment to be washed into the adjacent River through surface runoff, especially after heavy rainfall. To address construction-period erosion and siltation, the Project applicant will be required to demonstrate compliance with the NPDES General Construction Activities Permit, prepare a site-specific Storm Water Pollution Prevention Plan (SWPPP) per NPDES general construction permit requirements and obtain approval by the City of an Erosion Control Plan prior to the issuance of any

¹³ <https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Projects-by-Category/Projects-for-Navigable-Waterways/Petaluma-River-O-M----/>

¹⁴ City of Petaluma, Denman Reach Phase 4 - Petaluma River Flood Management Project, Initial Study Document Supporting the approval of a Mitigated Negative Declaration, August 2018

¹⁵ Aquatic Science Center, March 2010

grading permits. City requirements for the Erosion Control Plan include measures that trap sediment such as inlet protections, straw bale barriers, straw mulching, straw wattles, silt fencing, check dams, terracing and siltation, or sediment ponds. These requirements are further specified in Mitigation Measure Hydro-1, which establishes design requirements and implementation measures for minimizing Project-generated erosion to be set forth in the applicant's SWPPP and in accordance with State and RWQCB design standards. Mitigation Measure Hydro-1 requires, at a minimum, the following or similar erosion control provisions:

- leave existing vegetated areas undisturbed until construction of improvements on each portion of the development site is ready to begin
- immediately re-vegetate or otherwise protect all disturbed areas from both wind and water erosion upon the completion of grading
- collect storm water runoff into stable drainage channels, from small drainage basins, to prevent the buildup of large, potentially erosive storm water flows
- direct runoff away from all areas disturbed by construction
- use sediment ponds or siltation basins to trap eroded soils before runoff is discharged into on-site or off-site drainage culverts and channels
- install straw rolls, straw bales or other approved materials below all disturbed areas adjacent to the Petaluma River and surrounding all wetland areas to be retained, to prevent eroded soils from entering the river channel and maintain these facilities until all disturbed up-slope areas are fully stabilized
- to the extent possible, schedule major site development work involving excavation and earthmoving for construction during the dry season
- after construction is completed, inspect all drainage facilities immediately downstream of the grading site for accumulated sediment, and clear these facilities of debris and sediment as necessary

The mitigation measures identified above are the City of Petaluma's baseline mitigation requirements. Subsequent permit requirements may result in different and potentially greater mitigation obligations based on site-specific information and determined through agency coordination. As concluded in the Draft EIR, when properly designed and implemented, the requirements of Mitigation Measure Hydro-1 can reduce effects on the quality of storm water runoff from construction sites to less than significant levels.

Post Construction / Operations

As described in detail in the Master Response regarding Stormwater Quality (below), the Project will be subject to federal Clean Water Act mandates to control the discharge of stormwater from municipal separate storm sewer systems (MS4s), including implementation of best management practices (BMPs) to minimize the amount of pollutants, including sediment, in runoff. Permits required of the Project call for the design and implementation of post-construction Stormwater Management Programs with features and facilities to control pollutant sources and treat runoff prior to discharge from the site. Pursuant to Mitigation Measures Hydro-2A and -2B of the Draft EIR, the Project applicant will be required to obtain all permits and authorizations from applicable regulatory agencies, and BMP design elements shall demonstrate how the Project's post-construction runoff treatment is designed in accordance with requirements of the City's Storm Water Management regulations and NPDES MS4 requirements. When properly designed and implemented, these regulatory requirements and mitigation measure can reduce effects on the quality of storm water runoff from the site during operations, including sedimentation, to less than significant levels.

Effects of Cumulative Sedimentation on Hydrology Modeling

The majority of comments on the Draft EIR pertaining to River sedimentation questioned whether hydrology modeling prepared for inclusion in the Draft EIR adequately addressed the cumulative effects of River sedimentation, particularly as to potential downstream flooding conditions.

Hydraulic Roughness

In hydrology modeling, hydraulic roughness is defined as the measure of frictional resistance that water experiences when passing over land and within channel features (vegetation, rocks, and to a lesser degree sediment). Frictional resistance to river flow is an important determinant in calculating flow velocity. An increase in frictional resistance can cause a decrease in the velocity of water flowing through a channel or across a surface. Hydrology modeling calculations of stream discharge and floodwater elevations requires inclusion of the flow-impeding characteristics of the stream channel and its banks. Manning's roughness coefficient (or, as used in the City's XP-SWMM hydrology model, the "n value") is commonly used to assign a quantitative value to represent the collective effects of roughness, including vegetation, rocks and gravel, and the relative level of sediment carried in River flows. An increase in this "n value" will cause a decrease in the velocity of River flows, potentially affecting both the volume of flood flow at any given point and the resulting water surface elevation.

Pursuant to separate citywide hydrology modeling purposes, the City hydrology consultants (WEST Consultants, Inc.) conducted an evaluation of potential changes to the most recent hydrology model to evaluate the impacts of a number observed and possible changes in assumptions with the model. This included a preliminary evaluation of increased flooding potential due to the lack of dredging the Federal Channel, which extends from Washington Street Bridge downstream into San Pablo Bay. In this evaluation the hydrographic survey of the Petaluma River completed by the U.S. Army Corps in late 2017 and early 2018 was used as the existing "un-dredged" condition, and the dredged contours were removed from the model. The model was not revised to include the Corona Road sediment cleanout or the Denman property detention facility (Denman Phase 4) or the Sid Commons terraced grading concept. The purpose of this effort was to isolate the effects of increased sedimentation of the River. An abbreviated summary of the modeling results are presented in **Table 4-14**.

Table 4-14: Effects of Un-Dredged Conditions on 100-Year Flood Water Surface Elevations (feet)

<u>Node</u>	<u>Location</u>	<u>Updated Base WSE</u>	<u>WSE with new "N" Values (feet)</u>	<u>Changes in Calculated WSE (feet)</u>
700	Upstream of Old Redwood Hwy.	33.975	33.975	0.00
650	Downstream of N. Petaluma Blvd.	32.148	32.148	0.00
540	At Capri Creek	24.727	24.727	0.00
500	Upstream of Sid Commons	21.894	21.894	0.00
400	Downstream of Sid Commons	16.875	16.898	0.02
300	At E. Washington Street	11.022	11.176	0.15
230	At C Street	10.241	10.409	0.17
195	At F Street	9.565	9.605	0.04
110	Highway 101	8.502	8.502	0.00

Source: West Associates, May 2018

As indicted in Table 4-14, model changes in water surface elevation attributed to the increased sedimentation of the River (i.e. the dredged channel versus the un-dredged channel) generally account for less than 0.2 feet (or approximately 2.5 inches) of increased water surface elevation in the Turning Basin area of the river channel (near node 230 at C Street), with minimal to no effects upstream of Washington Street Bridge and downstream of F Street.

Follow-up Recommendations

Sedimentation in the Petaluma River occurs from fluvial and tidal processes, with sediment inputs from flooding events and tidal action that circulates suspended sediment and induces scouring currents on the Petaluma River channel network. The un-dredged condition of the River minimally increases the modeled flood elevation in the downtown area, but does not affect the Sid Commons area. The maintenance dredging of the River is for both vessel navigation and flood protection. The City is actively pursuing maintenance dredging to reestablish hydraulic design capacity. The current volume of sedimentation has a negligible effect on flood water surface elevation. If the un-dredged conditions of the river persists, the impacts on increased sedimentation will continued to be monitored by the City as part of ongoing flood control management efforts.

Master Response Regarding Stormwater Quality

The federal Clean Water Act mandates that controls on the discharge of stormwater from municipal separate storm sewer systems (MS4s) and Best Management Practices (BMPs) are required to minimize the amount of pollutants in runoff. In 2013, the California Water Resources Control Board issued permits for small MS4s pursuant to the National Pollutant Discharge Elimination System. These permits require design and implementation of post-construction Stormwater Management Programs and mandate that each municipality require development projects to include features and facilities that control pollutant sources, control runoff volumes, rates and durations, and treat runoff before discharge from the site. The Bay Area Stormwater Management Agencies Association (BASMAA) has created a Manual to assist applicants of development approvals to prepare materials that demonstrate their project complies with NPDES permit requirements.

Original Project

The original Project included a Stormwater Control Plan (CSW/Stuber Stroeh Engineering Group, Inc., July 2015) that was summarized in the Draft EIR (starting at page 11-16). The original Project's Stormwater Control Plan was prepared using the template and manual as provided by BASMAA.

As documented elsewhere in the Draft EIR, the original Project did not fully comply with site design measures of the BASMAA manual in that it did not conserve natural areas of the site as much as possible consistent with local General Plan policies, and did not fully comply with all stream setback ordinances and requirements. The Revised Project now includes setbacks from the River that demonstrate greater compliance with these site design measures.

The original Project's Stormwater Control Plan did comply with other site design measures for regulated projects that included:

- identifying potential sources of stormwater pollutants and providing for source control measures
- routing stormwater runoff to bioretention or other facilities that were sized and designed according to BASMAA criteria, and
- providing for ongoing maintenance of bioretention facilities

As documented in the Draft EIR (starting on page 11-18) the original Project would have resulted in approximately 364,730 square feet of impervious surface area. Bio-treatment facilities for the original Project

were based on runoff factors of 1.0 (i.e., 100% runoff) for pervious surfaces and runoff factors of 0.1 (i.e., 10% runoff) for landscaped areas, and a sizing factor of 4 percent (consistent with BASMAA criteria). The minimum size of bio-treatment facilities for the original Project was calculated to be approximately 14,589 square feet, whereas the original Project proposed a total of 19,249 square feet of bioretention area, or approximately 4,660 square feet more bio-retention facility area than required. The Draft EIR recommended Mitigation Measure Hydro-2A (SWCP Implementation) that required the original Project to be designed, constructed and implemented with all appropriate post-construction stormwater treatment measures to reduce water quality impacts to downstream reaches as required by the current post-construction control requirements of the Small MS4 General Permit. Upon completion of the final project design, the applicant is required to provide documentation of stormwater management measures that show compliance with the Small MS4 General Permit.

Revised Project

These requirements for the design and implementation of post-construction Stormwater Management Program remain applicable to the Revised Project. The Revised Project better complies with site design measures of the BASMAA Manual in that it conserves more natural areas of River Corridor, and (with a few minor exceptions) better complies with all stream setback ordinances and requirements. The Revised Project also complies with site design measures for regulated projects by incorporating impervious surfaces and source control measures, routing runoff to bioretention areas, and providing for ongoing maintenance. Implementation of these requirements will similarly reduce impacts to stormwater quality of the Revised Project to less than significant. The EIR mitigation measure represents the City of Petaluma's baseline mitigation requirement as lead agency, but subsequent permit requirements may result in different and potentially greater mitigation obligations based on site-specific information as determined through agency coordination.

Master Response Regarding Loss of Wetlands and Riparian Habitat

The City has received numerous comments expressing concern that the Project will result in the loss of wetlands and riparian habitat, and that this loss might exacerbate existing flooding conditions along reaches of the Petaluma River and adversely affect habitat values at the site. The following Master Response is intended to clarify the extent of wetland and riparian habitat at the site, the extent to which these habitat types currently retain or detain runoff from the site, and the significance of habitat loss and mitigation measures required of the Project to compensate for this loss.

Seasonal Wetlands

As presented in the Draft EIR and reconfirmed in a recent (January 2019) determination by the US Army Corps of Engineers, the approximately 15.45-acre net developable portion of the site contains approximately 0.62 acres of wetlands as defined pursuant to Section 404 of the Clean Water Act. These wetland areas include one deeper seasonal wetland of 0.28 acres and one 0.01-acre wetland near the River, and six small seasonal wetlands comprising 0.33 acres located on the Project site's westerly side near the SMART rail line. These smaller wetlands along the rail line are isolated from the River and above the 100-year flood elevation (see prior Figures 2-5 and 2-6).¹⁶

The majority of the remainder of the approximately 15.45-acre net developable upper portion of the site is underlain by low permeable soil formations of Yolo and Clear Lake clays. These soil types are poorly drained, have high runoff rates and slow permeability and as such, stormwater does not rapidly drain off the site or

¹⁶ Department of the Army San Francisco District, U.S. Army Corps of Engineers Regulatory Division, Subject: File Number 2004-255710, letter to Mr. Doug Spicher, Wetland Research Associates, dated January 30, 2019

infiltrate into the ground quickly, but tends to spread and pond on the surface until the ground is saturated, then stormwater gradually drains towards the River. Although these soil types become saturated and may pond during heavy rainfall events, they are not jurisdictional wetlands, nor do they accommodate groundwater recharge because infiltration rates are low.

Unless avoidance of certain seasonal wetlands can be achieved pursuant to final site plan review during SPAR (for example, potential avoidance of the small seasonal wetland identified as a future detention basin site within the River Corridor), the Revised Project proposes to fill 0.33 acres of isolated seasonal wetlands near the SMART rail corridor, and fill of the 0.01-acre seasonal wetland near the River to accommodate the river terrace (0.34 acres total). Some of these depressions contain typical wetland-associated vegetation, but they are dominated by non-native grasses and herbs, with native species typically not represented as dominant species. The functions and values of these seasonal wetlands rate as low to moderate. They are dry most of the year and subject to discing as part of non-native grassland fire control, which further reduces their value to both aquatic and terrestrial wildlife species. The larger 0.28-acre seasonal wetland located along the upper bank of the Petaluma River near the Oak Creek Apartments will be preserved under both the original Project and the Revised Project.

Like the original Project, the Revised Project includes a Habitat Mitigation and Monitoring Plan (HMMP) that provides for the creation of new perennial and seasonal wetland habitat as mitigation for impacts to wetlands. These newly created wetlands will augment habitat value and increase habitat complexity along the River. Terraced grading along the River edge is proposed to include new seasonal wetlands with appropriate wetland hydrology and native wetland plant establishment. The original Project had proposed to create a total of 0.54 acres of new seasonal wetland habitat. As a result of grading design changes made to preserve additional oak trees along the River, the Revised Project will result in creation of approximately 0.47 acres of seasonal wetland habitat, or approximately 0.07 acres less new wetlands. Pursuant to Draft EIR Mitigation Measure Bio-4, these new wetlands will still meet the requirement to replace and/or exceed the functions and values of the approximately 0.34 acres of seasonal wetlands filled for new development and terracing, sufficient to achieve a no-net-loss standard. The applicant will also be required to obtain all required authorizations from the US Army Corps and Regional Water Quality Control Board (RWQCB) as applicable for the loss or disturbance of on-site seasonal wetlands, and will be subject to any additional requirements of these permitting agencies. The loss and replacement of these seasonal wetlands is not expected to have any quantifiable effect on flooding at or downstream of the site. With implementation of the identified mitigation measures, the City will ensure that wetland mitigation fully compensates for the loss of wetland acreage and wetland habitat values resulting from the Project, such that there is no net loss of wetland acreage and values. Subsequent permit requirements may result in different (potentially greater) mitigation obligations, particularly regarding compensatory mitigation ratios, which shall be based on site-specific information and determined through coordination with the Corps and RWQCB.

Riparian Habitat

Riparian woodland vegetation occurs along the Petaluma River and extends approximately 50 to 100 feet from the bank, covering approximately 1.92 acres of the site (see prior Figure 2-6). The vegetation consists primarily of thickets of willow, blackberry and teasel in almost impenetrable swaths along the riverbank. The functions and values of these riparian scrub habitats along the River range from low to high. The flood attenuation potential of these habitats and their respective topography is low. The dense vegetation along the river does rate high for riverbank protection and preventing erosion, and serves to improve water quality by reducing toxics and excess nutrients in the water. As habitat value, the patches of non-native Himalayan blackberry rate lower because they are generally homogeneous stands and nearly impenetrable to most species of wildlife. The willows and other native vegetation have a high rating for wildlife habitat value. The dense vegetation also contributes a high amount of primary production with gradual decomposition that provides a steady food chain source. The riparian habitat is fully contained within the River bank and below the top of slope.

Development of the site (including apartment buildings, roadways, parking areas, etc.) is set back from the riverbank slope and would not directly affect riparian habitat. However, consistent with Petaluma General Plan policies to improve flood capacity and flow efficiency, both the original Project and now the Revised Project include a terraced grading plan along the riverbanks fronting the site, designed to accommodate a 100-year storm event within a modified River channel. The terraced grading plan will result in the removal of more than 20,000 cubic yards of soil from along the riverbanks. The Revised Project's terraced grading plans have been slightly modified to enable greater preservation of trees, but the re-contouring of the riverbank will remove approximately 1.62 acres of riparian habitat. Most of the riparian habitat to be removed consists of lower quality non-native Himalayan blackberry vegetation. Approximately 0.30 acres of higher quality native riparian vegetation along the River as determined by the presence of native willow thicket will be protected and retained as part of the terracing plan (see prior Figure 2-6).

Like the original Project, the Revised Project's Habitat Mitigation and Monitoring Plan (HMMP) provides for preservation of the highest value existing riparian habitat along the river, removal of invasive monocultures of Himalayan blackberry patches, and creation and restoration of riparian habitat to maintain beneficial functions and values. Following grading activities, the HMMP proposes that approximately 2.08 acres of graded slopes will be replanted with riparian trees and shrubs, and an additional area of 0.71 acres along the River will be planted with marsh/wetland plants, for a total of 2.79 acres of replanted riparian habitat. With the 0.30 acres of existing high-quality riparian habitat retained, the total on-site riparian habitat will be 3.09 acre (or a proposed replacement ratio of 1.7:1). Willows that currently exist within the riparian zone will be sourced for species harvesting to revegetate the newly established riparian areas. To augment those existing trees that will be preserved, mitigation for the removal of other vegetation will include installing new trees and shrubs in positions in the ecotone between the developed uplands and the riparian and wetlands mitigation habitat areas, creating a transition zone between the two habitat types.

The applicant will be required to obtain all required authorizations from the California Department of Fish and Wildlife (CDFW) as applicable for the loss or disturbance of riparian vegetation. Pursuant to Mitigation Measure Bio-5A, the final grading plans for terraced grading shall show Riparian (Willow) Preservation Zones of a minimum of 0.30 acres where the preservation of existing high-quality riparian vegetation shall be achieved, with special measures to protect the riparian zone during construction. Mitigation Measure Bio-5C requires the final HMMP to include a landscape and biological restoration plan designed and constructed to contribute to wildlife and fishery habitat values and water quality.

The loss and replacement of these riparian areas is not expected to have any quantifiable effect on flooding at or downstream of the site. With implementation of the identified mitigation measures, the City will ensure that riparian habitat mitigation fully compensates for the loss of riparian acreage and habitat values resulting from the Project. Subsequent permit requirements may result in different (potentially greater) mitigation obligations, particularly regarding compensatory mitigation ratios, to be based on site-specific information and determined through coordination with the CDFW.

Master Response to Comments Regarding Noise

Numerous comments have questioned whether the effects of ambient noise and vibration on the Project (under existing or projected future conditions) are applicable CEQA impact concerns. Comments have also questioned whether the projected future train-related noise and vibration levels as presented in the Draft EIR provide a reasonable basis for assessment of the Project, and whether the Project's increased traffic will result in significant traffic-related noise on Graylawn and/or Jess Avenue. The following Master Responses address each of these issues.

Effects of the Environment (Ambient Noise) on the Project

It had been the City of Petaluma's standard practice (consistent with CEQA Guidelines, Appendix G) to consider a project's impact as significant if a project would expose its residents to noise levels in excess of standards established in the City General Plan or Noise Ordinance, or if a project would expose its residents to excessive groundborne vibration. However, the California Supreme Court holding in *California Building Industry Association v. Bay Area Air Quality Management District* (2015, 62 Cal. 4th 369) and the corresponding October 2018 revisions to CEQA Guidelines Appendix G (which were published after the December 2017 release of the Draft EIR) have clarified that the effects of the environment on a project are not to be considered a significant impact under CEQA. Therefore, the exposure of new project residents to excessive ambient noise or groundborne vibration is no longer considered a significant impact threshold in this EIR.

This understanding of CEQA does not preclude the City of Petaluma from implementing noise or vibration standards established in the General Plan, Noise Ordinance or other applicable standards of other agencies as conditions of project approvals, pursuant to its discretionary actions on the Project. Therefore, discussion of the Project's relationship to noise and vibrations standards is not removed from the Draft EIR, but is instead re-cast as relevant informational analysis related to General Plan consistency and regulatory guidance. Mitigation measures are re-defined as recommended conditions of approval pursuant to these applicable General Plan and regulatory standards and guidelines (see Chapter 7: Revisions to the Draft EIR).

Applicability of Projected Future Train Noise and Vibration Levels

North Coast Rail - Cumulative Assumptions

The Draft EIR's assessment of the original Project's compatibility with ambient noise levels was based on a reasonably foreseeable projection of future train activity on the adjacent SMART rail line as derived from the *Environmental Noise Assessment for the North Coast Railroad Authority (NCRA) Russian River Freight Rail Project*.¹⁷ That Environmental Noise Assessment projected that freight train traffic along the segment of rail adjacent to the project site would increase to 6 trains per day, and that Sonoma-Marín Area Rail Transit (SMART) commuter/passenger train operations would increase to 24 trains (or 48 diesel multiple unit trains) per day. Because the environmental reviews for these expanded rail services were complete and both projects had been approved by their respective Authorities, the Draft EIR identified this level of rail traffic as a reasonable and foreseeable future condition along the segment of rail line adjacent to the site. Pursuant to information contained in the NCRA EIR:

- Projected future noise along the rail line adjacent to the site was estimated to generate noise levels of 70 dB Community Noise Equivalent Level (CNEL) at 25 feet from the tracks, 65 dB CNEL at 54 feet from the tracks and 60 dB CNEL at 117 feet from the tracks.
- This level of train activity was also projected to result in maximum train-related decibel vibration velocity levels of approximately 74 to 78 VdB at 50 feet from the tracks, with a conservative 72 VdB vibration velocity threshold for a residential receiver occurring at approximately 100 feet from the tracks.

Based on these cumulative noise and vibration assumptions from the NCRA EIR, the Draft EIR recommended a residential structure setback of 54 feet, at the projected future "conditionally acceptable" 65-dBA CNEL contour (Mitigation Measure Noise-1A). The Draft EIR also recommended either an additional 100-foot setback or incorporation of structural measures into the design and construction of residential buildings

¹⁷ North Coast Railroad Authority (NCRA) *Freight Rail Project EIR*, prepared by Kleinfelder Associates (November 5, 2009) and Bollard Acoustical Consultants, Inc., Appendix H to the NCRA Rail Project EIR, *Environmental Noise Assessment NCRA RRD Freight Rail Project* (May 2008)

located closer than 100 feet from the tracks to address train-related ground vibration (Mitigation Measure Noise-2).

Current (May 2019) Noise Measurements

A follow-up noise and vibration monitoring survey was completed in May 2019 to quantify the current ambient noise and vibration levels produced by current rail operations (see **Appendix B** of this document). The 2019 noise monitoring survey included long-term measurements adjacent to the SMART corridor along the westerly boundary of the site, conducted from Wednesday, April 24 to Wednesday, May 1, 2019. The sound monitor was placed approximately 23 feet east of the centerline of the near set of tracks. During the noise monitoring survey, SMART train pass-bys occurred approximately 34 times per day during weekdays and approximately 10 times per day during weekends, passing the site at speeds ranging from 21 to 26 mph. Heavy freight train pass-bys occurred on an infrequent basis, with only one train on Thursday night (April 25) and two trains on Monday night (April 29). The freight train pass-bys were not observed, but the speed of freight train pass-bys is presumed to be relatively slow.

The current (May 2019) noise level measurements concluded the following:

- Maximum instantaneous noise levels produced by SMART train pass-bys typically ranged from 80 to 90 dBA Lmax, and the freight train pass-bys generated maximum instantaneous noise levels of 90 to 100 dBA Lmax at 23 feet east of the centerline of the near set of tracks.
- The nighttime train events (both SMART and freight) contributed to higher average daily noise levels. The Community Noise Equivalent Level as measured at the noise monitor (located 23 feet east of the centerline of the near set of tracks) ranged from 62 to 67 dBA CNEL on weekdays, and from 58 to 63 dBA CNEL on weekends
- Based on the worst-case CNEL noise levels as measured during the survey, the 65-dBA CNEL noise contour was estimated to occur at approximately 30 feet from the center of the near set of railroad tracks.

These current noise measurements recorded train noise levels that are substantially lower than the projected future cumulative rail noise as estimated in the NCRA EIR.

Current (May 2019) Vibration Measurements

Vibration levels due to SMART trains were measured at the site in May 2019, with the vibration monitor placed at approximately 54-feet from the center rail. Vibration data was obtained during five SMART train pass-bys, but no heavy freight train pass-bys occurred during the monitoring period. Vibration levels measured on the site are representative of vibration levels at ground level (i.e. vibration levels that would enter the building foundation). The vibration measurements at the site concluded the following:

- Vibration levels measured at this location indicate that SMART trains produce vibration levels ranging from 58 to 59 VdB at 54 feet from the center of the rail tracks. These measured vibration levels are well below the conservative 72 VdB threshold as used in the Draft EIR. The low level of vibrations is likely a function of the relatively slow speed of train pass-by, modern track conditions and vibration isolation equipment that is included in the design of SMART.
- Although the May 2019 vibration monitoring did not capture vibration levels associated with current freight trains, the NCRA EIR's cited "reference" freight train vibration level of approximately 74 to 78 VdB at a distance of 50 feet from the center of the tracks is likely representative of current, individual freight train vibration effects.

Implications Based on Current (Existing) Conditions

Train Noise

Based on current train traffic conditions (both SMART and freight rail), the calculated setback necessary to achieve the 65-dBa CNEL “conditionally acceptable” noise levels for multi-family residential use is at 30 feet from the center of the rails, rather than at 54 feet as calculated under the future cumulative scenario of the NCRA EIR. A setback of approximately 30 feet from the rail centerline would satisfy land use compatibility standards of the Petaluma General Plan for “conditionally acceptable” noise levels (i.e., 65 dBA CNEL) at multi-family residential uses, based on current train noise.

The calculated setback necessary to achieve the 60 dBA CNEL “normally acceptable” noise level for outdoor uses in residential areas under current train noise conditions (both SMART and freight rail) is at approximately 60 feet from the center of the rails, rather than at 117 feet as calculated under the future cumulative scenario of the NCRA EIR.

The Revised Project’s 54-foot setback from the rail centerline would be more than adequate to meet “conditionally acceptable” noise levels (i.e., 65 dBA CNEL) for multi-family residential uses, and the Revised Project would not place any primary active outdoor use areas (i.e., the swimming pool and courtyard or active play areas) in areas subject to current noise levels that would exceed “normally acceptable” noise (i.e., greater than 60 dBA CNEL).

The regulatory requirement for indoor space in residential units is an exposure level of 45 dBA Ldn, as established in the California Noise Insulation Standards found in CCR Title 24. The Revised Project’s conceptual site plan indicates that typical balcony and window treatments for units facing the rail tracks will comply with recommendations of the Draft EIR, which call for specific noise control treatments capable of achieving interior noise levels of 45 dBA or lower (i.e., sound rated windows and doors, sound-rated wall construction, acoustical caulking, protected ventilation openings, stucco siding, thicker walls, bedroom orientation, etc.). Throughout the remainder of the site, future noise levels from freeway traffic noise and rail noise are expected to be between 60 and 65 dBA Ldn and within “normal” to “conditionally acceptable” noise levels. Standard residential building construction methods are generally capable of achieving a 15 to 20 dB reduction from outdoor noise, thus able to achieve the 45 dB interior noise requirement and reducing anticipated noise conditions inside buildings.

SMART Train Vibrations

The May 2019 vibration measurements of SMART trains found that these trains produce vibration levels ranging from 58 to 59 VdB at 54 feet from the center of the rail tracks. These vibration levels at 54 feet are well below the FTA threshold of 72 VdB for “frequent” train events. The measured vibration levels are relatively low due to the slow speed of train pass-bys, modern track conditions and vibration isolation included in the design of SMART trains. The Revised Project’s 54-foot residential set back from the centerline of the rails more than adequately meets FTA criteria for “frequent” SMART train events that now occur. For reference, the 72 VdB threshold for SMART trains (only) occurs at approximately 15 to 20 feet from the rail centerline.

Freight Train Vibrations

As noted in the Draft EIR (Table 13-6), the FTA has three ground-borne vibration impact criteria, generally based on the frequency of vibration event occurrences and/or the duration of individual freight train events. A criteria of 80 VdB applies to locations subject to “infrequent events” (conditions of less than 30 vibration events of the same source per day). A criteria of 75 VdB applies to locations subject to “occasional events” (conditions where between 30 and 70 vibration events of the same source occur per day), and a criteria of 72 VdB applies to locations subject to “frequent events” (conditions of more than 70 vibration events of the same source per day). In addition to these frequency criteria, the NCRA EIR conservatively applied the

“frequent event” threshold of 72 VdB, irrespective of train frequency, due to the anticipated extended duration of individual future freight train events. The NCRA EIR assumed that freight train traffic would ultimately include 60-car trains from Willits to Lombard.

Although the number of cars that travelled past the project site during the noise and vibration monitoring period were not counted, the noise measurements do not suggest that these individual freight train events occurred over an extended duration, but rather were relatively short duration events consisting of a limited number of cars (i.e., not as many as 60 cars per train). Current freight trains are generally smaller in car length, mostly carrying grains bound for feed businesses or to the Lagunitas Brewing Co. in Petaluma.

Based on NCRA EIRs “reference” vibration levels for freight trains (ranging from 74 to 78 VdB at 50 feet from the center of the rail tracks), and without the ‘extended duration penalty’ for individually long freight trains, the frequency thresholds that would be currently applicable to the site would include the following:

- The 72 VdB threshold that applies to locations subject to “frequent events” (conditions of more than 70 vibration events of the same source per day) occurs at approximately 40 feet from the rail centerline
- The 75 VdB threshold that applies to locations subject to “occasional events” (conditions where between 30 and 70 vibration events of the same source occur per day) occurs between 50 and 65 feet from the rail centerline
- The 80 VdB threshold that applies to locations subject to “infrequent events” (conditions of less than 30 vibration events of the same source per day) occurs at approximately 100 feet from the rail centerline

The Revised Project’s 54-foot residential set back from the centerline of the rails more than adequately meets the criteria for the “infrequent” number of freight train events that now occur, and is approximate to the location of where the “occasional” freight train event criteria occurs, potentially accounting for a less substantial ‘extended duration penalty’. The Revised Project’s 54-foot setback does not meet the frequent event setback criteria, but current train traffic is neither frequent (i.e., is not more than 70 events per day) nor are current freight trains of a particularly extended duration (i.e., not as many as 60 cars each).

Implications Based on Potential Future (Cumulative) Conditions

The potential future conditions as forecast in the NCRA EIR assume that freight train traffic along the segment of rail adjacent to the project site would increase to 6 trains per day and with individual freight trains of up to 60 car lengths each, and that SMART commuter/passenger train operations would operate up to 24 trains (or 48 diesel multiple unit trains) per day. Although SMART trains have already exceeded these forecast frequencies, freight rail has not. This EIR makes no assumptions as to whether freight rail operations will or will not ultimately achieve the train frequencies or other operational characteristics as presented in the NCRA EIR.

Train Noise

Based on the projected future train traffic conditions (both SMART and freight rail), the calculated setback necessary to achieve the 65-dBa CNEL “conditionally acceptable” noise levels for multi-family residential use at the Project site would be at 54 feet from the center of the rails, as indicated in the Draft EIR. The calculated setback necessary to achieve the 60-dBa CNEL “normally acceptable” noise level for outdoor uses in residential areas under projected future train traffic conditions (both SMART and freight rail) is at approximately 109 feet from the center of the rails, as also indicated in the Draft EIR. The Revised Project’s 54-foot setback from the rail centerline would to meet the potential future “conditionally acceptable” noise level of 65 dBA CNEL at all multi-family residential uses, and the Revised Project does not place any primary active outdoor use areas (i.e., the swimming pool and courtyard or active play areas) as close as 109 feet from the tracks.

SMART Train Vibrations

Based on the May 2019 measurements, SMART trains produce vibration levels ranging from 58 to 59 VdB at 54 feet from the center of the rail tracks. The Revised Project's 54-foot residential set back from the centerline of the rails more than adequately meets FTA criteria for future "frequent" SMART train events.

Freight Rail Vibrations

If future freight rail use were to increase to levels as forecast in the NCRA EIR (i.e., up to 6 freight trains per day, with 60-car trains from Willits to Lombard), the Revised Project's 54-foot setback from the rail centerline would not meet the "frequent event" threshold, inclusive of the 'extended duration penalty' for long duration vibration events. The Revised Project's 54-foot setback would approximate the "occasional event" threshold and would include a less substantial (but still conservative) 'extended duration penalty' for long duration vibration events. As part of its discretionary considerations of project approvals, the City may consider application of the Draft EIR's recommendation to incorporate structural design measures into the design and construction of any residential buildings located closer than 100 feet from the tracks to reduce future residents' annoyance from anticipated vibration levels. As indicated in the introductory paragraphs to this topic, effects of the environment on the Project are not considered a significant impact under CEQA, and the exposure of new residents to ambient noise or groundborne vibration is not considered a significant impact threshold in this EIR. This does not preclude the City of Petaluma from implementing noise or vibration standards established in the General Plan, Noise Ordinance or other applicable standards of other agencies as conditions of project approvals.

Traffic Noise at Graylawn Avenue

As more fully described under the Master Response to comments regarding Traffic on Graylawn and Jess Avenue (above), all traffic generated by the Revised Project would have only one means of ingress and egress via Graylawn Avenue, with a portion of those trips (estimated at approximately 14%) also using the Graylawn-to Jess alternative route to Payran. Under this scenario, the expected ADT on Graylawn would increase from approximately 1,142 ADT to approximately 2,510 ADT. The expected ADT on Jess would increase from approximately 419 ADT to approximately 642 ADT. With this level of additional traffic, residences along Graylawn Avenue would experience increased traffic noise. Further analysis has been conducted to determine whether this additional traffic noise would be a significant impact based on the threshold used in this EIR, which defines significant as a permanent increase in ambient noise levels of 4-dBA CNEL or more, if the resulting noise level would exceed that described as normally acceptable for the affected land use.

Recent (May 2019) measurements of traffic noise have been conducted at a location approximately 105 feet from the centerline of Graylawn Avenue along Cordelia Drive to quantify existing ambient traffic noise in the neighborhood (see **Appendix B**). Based on these recent measurements, the current ambient noise level at this location ranges from 59 to 61 dBA CNEL on weekdays, and from 56 to 58 dBA CNEL on weekends. Existing traffic noise on Graylawn is already at, and in certain cases slightly exceeds the "normally acceptable" noise level of 60 dBA CNEL at residences along Graylawn. The increased traffic on Graylawn attributable to the Revised Project has been calculated as corresponding to an increase in noise levels of approximately 3.4 dBA CNEL, and the increased traffic attributable to the Revised Project on Jess Avenue would equate to a corresponding increase in noise levels of approximately 1.9 dBA CNEL (Illingworth & Rodkin, May 2019). Although the Revised Project's traffic noise on Graylawn would increase traffic noise such that ambient noise levels would exceed the "normally acceptable" noise level of 60 dBA CNEL, neither Graylawn nor Jess would experience an increase in traffic noise that exceeds the threshold level of 4 dBA CNEL or more, and the impact would be less than significant. The applicant has voluntarily agreed to implement a Traffic Calming Plan as part of the Revised Project to address increased traffic on Graylawn and Jess Avenues (see Appendix A). The strategies presented within the Traffic Calming Plan are intended to be conceptual in nature and are

not intended for immediate implementation without a community engagement process followed by detailed engineering design. The applicant shall coordinate with City Public Works staff on the preferred Traffic Calming approach and design (anticipated to be similar in nature to Concept 3 as shown in the conceptual Traffic Calming Plan of Appendix A), and the preferred Traffic Calming Plan shall be shown on the plan set for SPAR review. As part of the SPAR process, the Planning Commission will review and consider approval of a final Traffic Calming Plan, specifically determining which traffic calming measures will ultimately be implemented. The Public Improvement Plan set for the Revised Project shall include the final Traffic Calming Plan. One of the objectives of the Traffic Calming Plan is to reduce vehicle speeds on these roadways, which will also further reduce associated traffic noise.

Response to Comment Letters on the Draft EIR

Introduction

This chapter includes copies of written comments received by hand-delivered mail or electronic mail during the public review and comment period on the Draft EIR. Specific responses to the individual comments in each correspondence follow each letter.

Each correspondence is identified by an alphabetical designator (e.g., “A”). Specific comments within each correspondence are identified by a numeric designator that reflects the numeric sequence of the specific comment within the correspondence (e.g., “A-1” for the first comment in Comment Letter A).

Responses focus on comments that pertain to the adequacy of the analysis in the Draft EIR or to other aspects pertinent to the potential effects of the Project on the environment pursuant to CEQA. Comments that address topics beyond the purview of this EIR or CEQA are noted as such for the public record. Where comments have triggered changes to the Draft EIR, these changes are indicated in the response, and all changes to the Draft EIR are consolidated in Chapter 7: Revisions to the Draft EIR.

Master Responses to recurring comments may be found in the prior Chapter 4 of this document, and individual responses that are addressed by a Master Response are cross-referenced.

List of Comment Letters

The following is a list of letters received by the City, commenting on the Draft EIR.

Public Agencies

- Letter A: California Department of Toxic Substances Control (DTSC)
- Letter B: California Public Utilities Commission (CPUC)
- Letter C: California Department of Transportation (Caltrans)
- Letter D: Sonoma-Marín Area Rail Transit (SMART)

Project Applicant

- Letters E: Project Applicant, and representatives of Reuben, Junius & Rose

Members of the Public

- Letter F: Kallie Kull, 4-22-18
- Letter G: Taryn Obaid, 4-24-18
- Letter H: Donna Smith, 4-24-18
- Letter I: Petition against Sid Common Project
- Letter J: Taryn Obaid, 5-12-18
- Letter K: Kallie Kull, 5-15-18
- Letter L: Roger Huffman, 5-17-18
- Letter M: Steve Armstrong, 5-20-18

Letter N: Linda Speel, 5-20
Letter O: Julia Vanderham, 5-20-18-18
Letter P: Mary Alice Reis, 5-20-18
Letter Q: Rachel Kaplan, 5-20-18
Letter R: William Lee, 5-20-18
Letter S: David Dimmitt, 5-20-18
Letter T: Shanna Fleming, 5-20-18
Letter U: Carol Latvala, 5-21-18
Letter V: Don Forman, 5-21-18
Letter W: Janice Gordon, 5-21-18
Letter X: William Rogers, 5-21-18
Letter Y: Kim Wilson, 5-21-18
Letter Z: Nicole Victor, 5-21-18
Letter AA: Sue Hirsch, 5-21-18
Letter AB: Catherine Thompson, 5-21-18
Letter AC: Sherry Kamages, 5-21-18
Letter AD: Samer Rabadi, 5-21-18
Letter AE: Cynthia Murray, North Bay Leadership Council, 5-21-18

Letter A - California Department of Toxic Substances Control (DTSC)

Ervin, Olivia

From: Pettijohn, Julie@DTSC <Julie.Pettijohn@dtsc.ca.gov>
Sent: Wednesday, March 07, 2018 3:13 PM
To: Ervin, Olivia
Cc: Gray, Rebecca@DTSC
Subject: RE: Sid Commons Project Comments

Hi Ms. Ervin,

Thank you for the Phase I ESA. The information was very helpful. I have reviewed that and the Executive Summary of the DEIR for the proposed project.

You may wish to consider adding to the types of analyses for surface soil sampling as per MM Haz-1; this would be in addition to pesticides that may be associated with past use of the land for agricultural land uses.

If known or suspected areas of fueling were historically present at the site (for farm and other agricultural equipment), petroleum hydrocarbons could be present in soils and/or groundwater at the site. Elevated concentration of lead may also be present on-site associated with former painted structures that have since been demolished (if soil was not sampled and analyzed for lead following demolition activities and determined not to present an unacceptable risk for future site users).

A-1

In addition, if there will be redevelopment/soil disturbance near the railroad tracks (the Phase I ESA indicates two railroad tracks present in a 1957 photo), pesticides, herbicides, heavy metals (particularly chromium, copper and arsenic), and polycyclic aromatic hydrocarbons may also be present in surface soils which, if present at elevated levels, could present a health risk to future site users or construction workers. It was not uncommon for railroad ties to have been treated with chromated copper arsenate as a wood preservative. The wooden ties may also have been treated with creosote also for wood preservation purposes. Elevated levels of lead and arsenic along freight corridors associated with coal ash and cinder may also be present at the site.

Finally, you may wish to add contingency language in MM Haz-1 (or part of a separate mitigation measure) that provides for investigation of unknown contamination, underground tanks, containers, stained or odiferous soil etc. if encountered as part of the site redevelopment activities. Appropriate investigation, sampling, and comparison of data collected with health-based screening levels and/or consultation with a regulatory oversight agency should be conducted.

A-2

Please note that DTSC no longer uses California Human Health Screening Levels (CHHSLs) which are referenced in MM Haz-1. Instead, DTSC HERO Note 3 screening levels should be consulted. See the following link which has information about HERO Note 3 (and other topics) <http://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm>

A-3

Thank you for the opportunity to comment on your project. Please let me know if you have any questions.

Julie Pettijohn, MPH, CIH
Sr. Environmental Scientist Supervisor
Brownfields and Environmental Restoration Program Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710
510-540-3843

-----Original Message-----

Response to Letter A California Department of Toxic Substances Control (DTSC)

Response to Comment A-1

As indicated on page 10-2 of the Draft EIR, a Phase 1 Environmental Site Assessment (ESA) was prepared for the property and surrounding area in January 2004. The Phase 1 found no indication of any hazardous substance releases associated with the property and no evidence or indication of any hazardous substance containers in connection with the site. There have been no activities on the site since preparation of the Phase I ESA that would suggest a need to update or re-validate this information. The Phase 1 ESA was prepared in conformance with the scope and limitations of ASTM Practice E 1 527 for the site, and revealed that the site had not been adversely impacted by any environmental releases, either off-site or on-site.

However, no detailed soil or groundwater testing has been conducted for possible prior agriculture-related petroleum hydrocarbon spills, lead-based paint from former structures, or elevated levels of contaminants near the rail tracks. The Phase 1 report recommended that the surface soil at the site be tested for pesticides prior to development and this recommendation was incorporated as Mitigation Measure Haz-1 in the Draft EIR. Based on these comments, Mitigation Measure Haz-1 has been amended to provide a broader level of soil testing to address these potential concerns (see Response to Comment A-3 below).

Response to Comment A-2

Although the Phase 1 ESA found no indication of underground tanks, containers or stained soils, it is possible that such unknown contaminants may be discovered during development activities. Based on these comments, a new Mitigation Measure Haz-1B has been added to provide contingencies for such discoveries (see Chapter 7: Revisions to the Draft EIR):

Mitigation Measure Haz-1B, Discovery of Unknown Contaminants: If unknown contamination, underground tanks, containers or stained or odorous soils are discovered during construction activities, appropriate investigation, sampling and comparison of data collected with health-based screening levels and/or consultation with a regulatory oversight agency shall be conducted.

Response to Comment A-3

The City of Petaluma appreciates DTSC identifying the more recent screening level criteria used by the Human and Ecological Risk Office (HERO) as presented in HERO's human health risk assessments, and has modified Mitigation Measure Haz-1 accordingly (see Chapter 7: Revisions to the Draft EIR):

Mitigation Measure Haz-1A, Soil Testing and Regulatory Compliance: Prior to issuance of building or grading permits, the project applicant shall conduct a soil testing program to identify the potential for agricultural chemicals, agriculture-related petroleum hydrocarbon spills, lead-based paint or elevated levels of contaminants near the rail tracks to be present in the soils at levels exceeding recommended health screening levels. Should any impacted soil be discovered that exceeds human health screening levels for residential soil as noted in DTSC's HERO HHRA Note 3 criteria and/or Environmental Screening Levels (ESLs), such soils shall be excavated and removed for appropriate off-site disposal prior to development pursuant to existing regulatory requirements.

Letter B - California Public Utilities Commission (CPUC)

STATE OF CALIFORNIA

EDMUND G. BROWN JR., *Governor*

PUBLIC UTILITIES COMMISSION

180 PROMENADE CIRCLE, SUITE 115
SACRAMENTO, CA 95834



March 9, 2018

Olivia Ervin
Environmental Planner
City of Petaluma
11 English Street
Petaluma, CA 94952

**Re: Notice of Completion
Sid Commons Apartment Project
SCH# 2007072041**

Dear Ms. Ervin:

As the state agency responsible for rail safety within California, the California Public Utilities Commission (CPUC or Commission) recommends that development projects proposed near rail corridors be planned with the safety of these corridors of paramount importance. Your project proposes a new at-grade highway-rail crossing along a freight and high-speed passenger rail corridor. The Commission has set the bar very high in demonstrating a compelling public need for new at-grade crossings on mainline rail corridors. A formal application to the CPUC is required for any new crossings along with CEQA documents specifically studying the rail crossing.

CPUC staff reviewed the proposed crossing area. The nearest public crossing is less than 1/4 mile south at W Payran Street which seems to provide access across the tracks to the proposed project area. Sonoma Marin Area Rail Transit (SMART) currently runs 32 passenger trains per day at speeds up to 79 mph and Northwestern Pacific Railroad (NWP) runs 2 – 4 trains per week at speeds up to 25 mph along this rail corridor.

All this being said, please be aware that, as stated in the California Public Utilities Commission's (CPUC) General Order (GO) 75-D, it is the CPUC's policy to reduce the number of at-grade crossings within the State of California. GO 75-D states:

2. POLICY ON REDUCING NUMBER OF AT-GRADE CROSSINGS

As part of its mission to reduce hazards associated with at-grade crossings, and in support of the national goal of the Federal Railroad Administration (FRA), the Commission's policy is to reduce the number of at-grade crossings on freight or passenger railroad mainlines in California.

B-1

Letter B (continued)

Olivia Ervin
March 9, 2018
Page 2 of 2

CPUC staff believes that the safest option is to construct a grade separated structure over the SMART tracks. If the City of Petaluma decides to pursue an at-grade crossing, it will have to prove to the Commission that a grade separated structure is impracticable at this location, or that the overall safety of the corridor is improved by the project.

B-2

With the reduction of total crossings in mind, CPUC staff recommends the City select two existing at-grade crossings to close in exchange for the proposed new Shasta Avenue crossing.

If the City decides to pursue this project, the first step would be to set up an on-site diagnostic review that will include representatives from the City, CPUC, SMART, and NWP. The City would then need to file a formal application with the CPUC and request authority, under Public Utilities Code Sections 1201-1205, to construct the new crossing at Shasta Avenue, and outlining any other crossing closures that are proposed. The Commission approval proceeding may take up to a year and a half to complete.

B-3

The environmental review should include analysis of construction of a grade separation structure to take the vehicles over the tracks or under them. Although that is not the stated "preferred alternative" of the City as we understand it, that alternative should be studied and environmentally cleared in case the Commission rejects the at-grade crossing but allows for a grade separated one. If the funding could be identified, at least the City could continue to pursue it without needing additional environmental studies.

B-4

We will stay involved in the environmental process as it progresses. Please assure we are on the distribution list for all documents.

If you have any questions, please contact me at (916) 928-2515 or atm@cpuc.ca.gov.

Sincerely,



David Stewart
Utilities Engineer
Safety and Enforcement Division
Rail Crossings and Engineering Branch
180 Promenade Circle, Suite 115
Sacramento, CA 95834-2939

Response to Letter B California Public Utilities Commission

Response to Comment B-1

The City of Petaluma understands the CPUC's responsibilities and jurisdiction for rail safety, and appreciates CPUC policy to reduce the number of at-grade rail crossings within the State.

Response to Comment B-2

The Draft EIR included mitigation measures that would have been applicable to the original Project calling for a grade-separated structure over the SMART tracks. However, the project applicant has withdrawn their proposal for a Shasta Avenue extension and rail crossing. Thus, no grade-separated structure options are currently under consideration, no proof that a grade-separated structure is impracticable is necessary, and no closing of existing at-grade crossings is warranted.

Response to Comment B-3

The City will continue to process the application for this project, but will no longer be considering any rail crossings, and no applications to the CPUC for construction of a rail crossing will be forthcoming.

Response to Comment B-4

The City appreciates the CPUC suggestion to include a more detailed analysis of a grade-separated structure as part of the environmental review of this project, but no rail crossing of any nature is now being considered (please see Revised Project Description). Supplemental environmental analysis and feasibility studies of a grade-separated structure will only be conducted if the City determines that additional access to the site is necessary (in addition to Graylawn Avenue and the Bernice Court EVA) and if the project applicant is willing to consider construction of a grade-separated structure in order to develop the project.

Letter C - California Department of Transportation (Caltrans)

DEPARTMENT OF TRANSPORTATION

DISTRICT 4
P.O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
FAX (510) 286-5559
TTY 711
www.dot.ca.gov



*Making Conserva
a California Way of.*

March 30, 2018

Ms. Tiffany Robbe
City of Petaluma
Planning Division
11 English Street
Petaluma, CA 94952

SCH#2007072041
04-SON-2018-00244
GTS ID 9826

Sid Commons Apartment Project – Draft Environmental Impact Report (DEIR)

Dear Ms. Ervin:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-referenced project. In tandem with the Metropolitan Transportation Commission's (MTC) Sustainable Communities Strategy (SCS), Caltrans mission signals a modernization of our approach to evaluate and mitigate impacts to the State Transportation Network (STN). Caltrans' *Strategic Management Plan 2015-2020* aims to reduce Vehicle Miles Travelled (VMT) by tripling bicycle and doubling both pedestrian and transit travel by 2020. Our comments are based on the DEIR.

Project Understanding

The applicant requests a Planned Unit District (PUD) Amendment, Zoning Map Amendment, Vesting Tentative Parcel Map, Site Plan and Architectural Review to construct 278 apartment units within four three-story structures, along with a clubhouse and an outdoor swimming pool on an approximately 15.45-acre parcel. The applicant proposes 445 outdoor surface parking spaces throughout the site. The proposed project includes a River Terracing Plan along the site frontage of the Petaluma River and extending 300 feet onto the Oak Creek Apartment parcel. Terracing involves re-grading the western bank of the Petaluma River to improve flood capacity and flow efficacy in accordance with General Plan Policy 8-P.28. A preliminary Habitat Mitigation Monitoring Plan provides for habitat replacement and restoration of the terraced area. No residential development is proposed within the Floodplain. The applicant proposes a public sidewalk/trail that extends from the Graylawn Avenue sidewalk to the Riverside Trail. The project site is located approximately 1.1 miles southwest of the US 101/East Washington Street interchange. Access to the site would be provided via Graylawn Avenue and the creation of an extension of Shasta Avenue. A new at-grade crossing over the Sonoma-Marin Area Rail Transit (SMART) corridor is proposed via an extension of Shasta Avenue, which requires approval by the California Public Utilities Commission.

C-1

Letter C (continued)

Ms. Tiffany Robbe, City of Petaluma
March 30, 2018
Page 2

Travel Demand Analysis

In Caltrans' *Smart Mobility 2010: A Call to Action for the New Decade*, this project falls under **Place Type 4 Suburban Communities – Corridors**, which includes areas with a low level of integration of housing with jobs, retail service, poorly connected street networks, low levels of transit service, a large amount of surface parking, and inadequate walkability, moderate community design and variable regional accessibility. Given this Place Type and intensification of use, which typically leads to high levels of VMT and corresponding low levels of active transportation, we recommend providing VMT analysis resulting from the proposed project, which includes:

- A vicinity map, regional location map, and site plan clearly showing the project's location in relation to the STN. Clearly identify State right-of-way, bicycle paths, and transit facilities within the study area.
- A VMT analysis pursuant to the City's guidelines or, if the City has no guidelines, the Office of Planning and Research's Draft Guidelines. Projects that result in automobile VMT per capita greater than 15 percent below existing (i.e. baseline) city-wide or regional values for similar land use types may indicate a significant impact. If necessary, mitigation for increasing VMT should be identified and should support transit and active transportation modes.
- Potential safety issues for all road users should be identified and fully mitigated.
- The project's primary and secondary effects on pedestrians, bicycles, disabled travelers and transit performance should be evaluated, including countermeasures and trade-offs resulting from mitigating VMT increases. Access to pedestrians, bicycle, and transit facilities must be maintained.

C-2

Vehicle Trip Reduction

Given the intensification of use and the opportunities to reduce VMT, we encourage the City to establish a Transportation Management Association (TMA) in partnership with other developments in the area to pursue aggressive trip reduction targets with Lead Agency monitoring and enforcement. In addition, the Transportation Demand Management (TDM) elements described below should be included in the program to promote smart mobility and reduce regional VMT and traffic impacts to the STN. Transportation Demand Management programs should be documented with annual monitoring reports by an onsite TDM coordinator to demonstrate effectiveness. If the project does not achieve the VMT reduction goals, the reports should also include next steps to take in order to achieve those targets.

- Commuter subsidy for transit, carpool, and vanpool for residents and employees on an ongoing basis;
- Project design to encourage walking, bicycling, and convenient transit access;
- Onsite TDM coordinator;
- Ten percent vehicle parking reduction;
- Unbundled parking;

C-3

Letter C (continued)

Ms. Tiffany Robbe, City of Petaluma
March 30, 2018
Page 3

- Electric vehicle (EV) charging stations and designated parking spaces for EVs and clean fuel vehicles;
- Encourage membership in a carshare program such as Getaround;
- Carpooling incentives and dedicated parking spaces for carpooling employees;
- Transit and trip planning resources such as a commute information kiosk;
- Enhanced bus stops including bus shelters;
- Bicycle route mapping resources and bicycle parking incentives;
- Bicycle share membership;
- Fix-it bicycle repair station(s); and
- Decrease headway times and improve way-finding on Petaluma Transit, Sonoma County Transit Authority (SCTA), and Golden Gate Transit bus routes to provide a better connection between the project, nearby Petaluma Transit Mall, Petaluma Downtown Sonoma-Marin Area Rail Transit (SMART) Station, and regional destinations. Providing these connections with streets configured for alternative transportation modes will encourage residents to utilize nearby Petaluma Transit bus routes 1, 2, 5 and 11, Sonoma County Transit bus routes 40, 44, and 48, Golden Gate Transit bus routes 74, 101 and 101X, and the Petaluma Downtown SMART Station, thereby potentially reduce VMT and increase sustainable transportation modes.

C-3

For additional TDM options, please refer to Chapter 8 of Federal Highway Administration's *Integrating Demand Management into the Transportation Planning Process: A Desk Reference*, which is available online at: <http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf>. For information about parking ratios, please see MTC's report, *Reforming Parking Policies to Support smart growth*, or visit the MTC parking webpage: http://www.mtc.ca.gov/planning/smart_growth/parking.

Multimodal Planning

This project is located in close proximity to the Priority Development Area (PDA) in the City of Petaluma. Priority Development Areas are identified by the Association of Bay Area Governments as areas for investment, new homes, and job growth. To support PDA goals, the proposed project should provide connections to the Planned SMART Trail west of the project boundary and the Planned Petaluma River Trail east of the project boundary, per the *SCTA Countywide Bicycle and Pedestrian Master Plan, 2014 Update*.

C-4

Sustainable Communities Strategy

We encourage the Lead Agency to condition the project to designate ten to fifteen percent of the units as affordable. The provision of mixed-income housing is recommended for consistency with regional development goals outlined in the MTC's SCS.

C-5

Letter C (continued)

Ms. Tiffany Robbe, City of Petaluma
March 30, 2018
Page 4

Travel Demand Fees

Given the potential increase in VMT and proximity to US 101, the project should be conditioned to contribute fair share traffic impact fees toward ramp metering as identified in the DEIR to mitigate cumulative impacts to regional transportation (Page 14-35, Page 14-63 and Figure 14-8). Mitigation measures should be detailed in the Mitigation Monitoring and Reporting Plan of the environmental document including fair share fees. Please submit a copy of the final staff report to Caltrans for our review.

C-6

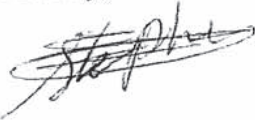
Lead Agency

As the Lead Agency, the City of Petaluma is responsible for all project mitigation, including any needed improvements to the STN. The project's financing, scheduling, implementation responsibilities and monitoring should be fully discussed for all proposed mitigation measures. Mitigation that includes the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City.

C-7

Should you have any questions regarding this letter, please contact Stephen Conteh at 510-286-5534 or stephen.conteh@dot.ca.gov.

Sincerely,



↵ PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

Response to Letter C California Department of Transportation

Response to Comment C-1

Caltrans' description of the original Project is accurate, but a Revised Project is now being considered that responds to environmental concerns raised in the Draft EIR (please see Revised Project Description). This Revised Project does not include a Shasta Avenue extension or an at-grade rail crossing.

Response to Comment C-2

Please see Master Responses Related to Traffic and specifically related to Vehicle Miles Travelled (VMT). SB 743 Section 15064.3(c) provides that, "a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide." The City of Petaluma has yet to determine how these changes will be implemented within the City, but the Petaluma City Council's Goals and Priorities for 2017/2018, pursuant to their review and amendments to the Petaluma General Plan 2025, include updating CEQA traffic thresholds to transition from LOS to VMT, in keeping with anticipated state CEQA Guidelines. While continuing to make progress on this goal, the City is working towards adopting local thresholds and methodology for VMT analysis consistent with provisions of SB 743 in advance of its mandated date. However, since local thresholds and methodologies have not yet been adopted and the provisions of SB 743 pertaining to VMT analysis is not mandated until July 1, 2020, a VMT analysis of the Project is not included or required as part of this EIR.

Even without a VMT analysis, there are certain important elements of the Project and its context that are relevant to VMT. The project site is located within the City of Petaluma's Urban Growth Boundary and within the central portion of town, it is an infill parcel surrounded on three sides by urban development, and it is located within a reasonable walking or biking distance (within one-half to one mile) of transit facilities and shopping. The Project is also a multi-family residential project that generally has lower trip generation characteristics than would an equivalent number of single-family residential units.

Response to Comment C-3

The Petaluma General Plan recognizes that Transportation Demand Management (TDM) programs can be effective in reducing the amount of peak period motor vehicle traffic on city roadways and highways as well as parking. The City's focus is on providing adequate and well-connected roadways and transit systems to reduce peak traffic volumes. The General Plan does include a TDM and parking goal to, "use transportation demand management (TDM) tools on a citywide basis to encourage and create incentives for the use of alternate travel modes." General Plan policy "encourages existing major employers to develop and implement Transportation Demand Management programs to reduce peak period trip generation." General Plan programs call for:

- studying the feasibility of a citywide TDM program that could be funded by annual fees or assessments on new development
- assigning a proportion of TDM fees to Petaluma Transit for expansion of service and future fare reductions or fare elimination, and
- assigning trip reduction credits and reduced transportation impact fees for demonstrated commitment to TDM strategies

However, Petaluma does not now have a TDM ordinance or any regulatory tools requiring TDM efforts to be implemented by new development projects. Certain TDM elements (such as electric vehicle charging station requirements greater than as required pursuant to CalGreen, un-bundling of parking, bike repair facilities and

bike maps, etc.) have been required by the City on other projects, and may be considered for this Project pursuant to subsequent SPAR review.

Response to Comment C-4

The project (both the original Project and the Revised Project) includes a pedestrian/bicycle trail along its frontage to the Petaluma River, connecting to the existing trail terminus at the Oak Creek Apartments. Due to the barrier of the SMART rail tracks, no trail connection to the SMART Pathway Project west of the site boundaries is possible. However, new residents introduced onsite and existing residents in the vicinity are expected to be able to access the SMART Pathway on the west side of the tracks via the existing at-grade crossing at Payran Street, located approximately 1/3 mile from the project site. The City anticipates that the new SMART Pathway will be available for public use starting in October 2019, but then will be temporarily closed by Caltrans starting in the spring of 2020 due to commencement of the Highway 101 widening project to accommodate new carpool lanes from Corona Road to Lakeville Highway. That temporary closure of the SMART Pathway may last for as long as two years, after which the SMART Pathway will then be re-opened.

Response to Comment C-5

The City appreciates Caltrans' concerns regarding affordable housing. The City has recently enhanced its affordable housing requirements; pursuant to Section 3.040 of the City of Petaluma's Implementing Zoning Ordinance, residential projects of five or more units are required to provide 15% on-site inclusionary affordable housing units. The specific requirements for residential projects (both homeownership and rentals) of five or more units is to provide 15% of the units on-site for use as affordable housing, with affordability restrictions of at least a 45 year duration for homeownership developments and affordability restrictions for of at least a 55 year duration for rental developments. Subject to approval by the City Council, developers may fulfill their inclusionary requirement via alternative compliance, such as by donating a portion of the project site to the City or a non-profit organization for use as affordable housing, making in-lieu payments to the City's Housing Fund or donating a separate parcel of land to build affordable housing.

However, The City's most recent affordable housing ordinance, which requires construction of affordable housing units on site unless the City Council specifically grants a method of alternative compliance, became effective on October 18, 2018, well after the Project application was filed and deemed complete. Projects with applications deemed complete prior to January 1, 2019 are not subject to the inclusionary provisions of the October 2018 ordinance, but are instead subject to the provisions of the previous affordable housing policy. That previous policy required either dedication of 15% of the units on-site as affordable or payment of an affordable housing in-lieu fee or an alternative method to meet the intent of the inclusionary requirement subject to approval by the City Council. The option of an alternative method enables the City and the project applicant to work together to establish a mutually agreed upon and mutually beneficial affordable housing component for the Project, pursuant to consideration of the relative public benefits attributable to the Project. The applicant has recently indicated their intention to provide 10.2% of the total units of the Revised Project (or 21 units) as affordable (with half of those units affordable at the low-income level, and half of those units affordable at the median-income level).

Response to Comment C-6

Pursuant to Chapter 19.24 of the Petaluma Municipal Code, the City implements a Traffic Development Impact Fee program (Traffic Impact Fees) to provide funding necessary to achieve the City's goal of maintaining existing traffic service levels and to provide traffic facilities to mitigate traffic impacts of new development. Fees charged to new development are used to pay for design, engineering, right-of-way or land acquisition and construction and/or acquisition of facilities and other established costs. Traffic Impact Fees can be used to reimburse the City for facilities constructed by the City, to reimburse developers who have designed and constructed facilities, and to pay for and/or reimburse costs of program development and

ongoing administration and maintenance of the Fee program. According to the City of Petaluma's Development Impact and Capacity Fee booklet (October 2018), those facilities that are paid for, or reimbursed through Traffic Impact Fees, include the following:

- Rainier Avenue Extension and Interchange (locally preferred alternative)
- Caulfield Lane Extension
- Old Redwood Highway Interchange improvements
- Caulfield Lane/Payran Street intersection improvements
- Petaluma Boulevard/Magnolia Avenue/West Payran Street intersection
- Construction of new intersections throughout the City
- Traffic signal upgrades throughout the City
- Pedestrian/bicycle improvements throughout the City
- Transit improvements throughout the City
- Redevelopment supplement and
- SMART station parking

Those roadway improvements listed in the Draft EIR as part of the Pipeline condition, or that are assumed as part of the future Cumulative scenario are either already completed or included in the current Traffic Impact Fee program. Freeway meters have been installed at both of the Old Redwood Highway northbound and southbound on-ramps and at the southbound on-ramp at East Washington Street, and the Traffic Impact Fee program includes fair share reimbursement funding for those meters. The project will be required to pay its fair share towards these improvements by paying applicable Traffic Impact Fees for each residential unit upon the date of final inspection or issuance of the certificate of occupancy for such residential unit, whichever is earlier.

Response to Comment C-7

As Lead Agency, the City is responsible for ensuring implementation of all mitigation measures applicable to the project. As indicated in the Draft EIR (pages 14-59 through 14-61), project-generated traffic would not cause a freeway segment operating at LOS E or better to deteriorate to LOS F, and would not cause an increase in the amount of traffic on a freeway segment already exceeding LOS E by more than one percent of the freeway segment's design capacity. None of these thresholds used for defining significant impacts of the project on the freeway system would occur under Existing plus Project, Pipeline plus Project or Cumulative plus Project conditions. Other than those facility improvements to be paid for on a fair-share basis through City Traffic Impact Fees, the City knows of no other applicable Caltrans permits or agreements that are applicable to the project.

If a project is ultimately approved by the City at this site, the City will concurrently adopt a Mitigation Monitoring and Reporting Program pursuant to CEQA requirements.

Letter D - Sonoma-Marín Area Rail Transit (SMART)



Debora Fudge, Chair
Sonoma County Mayors' and
Councilmembers Association

Judy Arnold, Vice Chair
Marin County Board of Supervisors

Damon Connolly
Marin County Board of Supervisors

Jim Eddie
Golden Gate Bridge,
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April 13, 2018

Tiffany Robbe, Senior Planner
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Via E-mail and First-Class mail
TROBBE@ci.petaluma.ca.us

Re: Comments on Sid Commons Apartment Project Draft Environmental
Impact Report

Dear Ms. Robbe,

Thank you for giving SMART the opportunity to review and comment on the Sid Commons Apartment Project Draft Environmental Impact Report ("DEIR"). SMART has completed its review and believes that the DEIR is inadequate and offers the following comments:

1. The DEIR Executive Summary identifies significant and unavoidable hazard, noise and traffic impacts. Specifically, these impacts are related to the establishment of a new crossing over SMART's tracks at Shasta Avenue (DEIR p. 2-1). The DEIR concludes that a grade separated structure "may not be feasible." However, due to double tracking and the California Public Utilities Commission ("CPUC") rail safety staff's opposition to an at-grade at this location, a grade-separated crossing is preferred at this location. The DEIR acknowledges that the applicant has not designed a grade-separated structure. The DEIR should have enough design details to adequately analyze whether a grade-separated crossing is feasible or not, and all environmental issues associated with a grade-separated crossing structure.

2. If a grade-separated crossing is deemed not feasible, the DEIR acknowledges that the CPUC will need to grant approval for an at-grade crossing. However, the DEIR further acknowledges that the CPUC rail safety staff would oppose an at-grade crossing at Shasta Avenue (DEIR, p. 3-30). The DEIR should discuss the feasibility of an at-grade crossing at the Shasta Avenue location given that the CPUC rail safety staff would oppose any at-grade crossing. SMART respectfully submits that the DEIR is inadequate and incomplete without the inclusion of a crossing study.

D-1

D-2

Letter D (continued)

Letter to Ms. Robbe
April 13, 2018
Page 2

3. The DEIR lacks specificity because it fails to identify and discuss the environmental impacts associated with the design, construction, installation, testing and maintenance of any specific at-grade or grade separated crossing structure including but not limited to the following:

- a. Any crossing of SMART's tracks must comply with CPUC General Orders and SMART's design standards including sidewalks, detectable warning strips, new power service and other related items.
- b. The DEIR fails to discuss if the crossing will be Quiet Zone ready, including appropriate gates, warning system and/or roadway medians be installed by, or paid for by, the project applicant as part of a Quiet Zone ready at-grade crossing.
- c. The DEIR fails to discuss how the applicant will pay to mitigate impacts associated with any SMART crossing. If a crossing is allowed, SMART will require the project applicant to pay for associated costs, including, but not limited to, design, permits, construction, installation, operation and ongoing maintenance of a crossing, safety fencing and the relocation of the freight siding as set forth below. The project applicant will also be required to provide for insurance and indemnification to SMART.
- d. The proposed Shasta Avenue extension would cross a section of existing "double track" that consists of the main line track and a storage/switching siding track. The storage/switching track is actively used by the freight operator to store/switch train cars. The DEIR does not adequately discuss how the CPUC can approve an at-grade crossing over SMART's double track where one track is currently used for freight car storage. Further, the proposed Shasta Avenue crossing would reduce the length of the useful storage/switching capacity of the siding by approximately 30%. The siding would need to be relocated to another acceptable location within SMART's railroad right-of-way. The DEIR does not address any environmental impacts associated with relocation of these tracks. The project applicant should bear all costs for the relocated siding, including mitigation of any identified environmental impacts and integration with SMART's Positive Train Control system.

D-3

Adding a new vehicular crossing to an existing railroad is a complex undertaking that affects many aspects of the railroad. In addition to SMART's approval, coordination with the regulatory agencies including, but not limited to, the Federal Railroad Administration (FRA) and the California Public Utilities Commission (CPUC), will be essential to make a new public or private crossing possible.

SMART appreciates the opportunity to review and comment on this proposed project. If you have any questions about any of the comments above please do not hesitate to contact me. I can be reached at: edippel@sonomamarintrain.org or (707) 794-3079.

Sincerely,



Elizabeth Dippel
Assistant Planner

Response to Letter D Sonoma-Marin Area Rail Transit (SMART)

Each of the comments included in this letter pertain to the original Project's proposed at-grade rail crossing of the SMART tracks. Please see the Master Response regarding the Shasta Avenue Extension and at-grade rail crossing in the previous section of this Response to Comments document, indicating that such a rail crossing is no longer proposed as part of the Revised Project.

Response to Comment D-1

As indicated in the Master Response to comments on the Shasta Avenue Extension and at-grade rail crossing and the description of the Revised Project, the applicant is no longer proposing to construct the Shasta Avenue Extension. Supplemental environmental analysis and feasibility studies of a grade-separated structure will only be conducted if the City determines that additional access to the site is necessary (in addition to Graylawn Avenue and the Bernice Court EVA) and if the project applicant is willing to consider construction of a grade-separated structure in order to develop a project.

Response to Comment D-2

The City believes that the Draft EIR was adequate and complete in its analysis of the original Project. The Draft EIR identified the CPUC's role as a Responsible Agency in approval of any rail crossing and clearly noted the CPUC staff's opposition to an at-grade crossing. It identified specific environmental impacts associated with the proposed at-grade crossing, and recommended mitigation measures (including a grade-separated structure) and alternatives (including a Reduced Project that relies only on Graylawn for site access). Due in part to the analysis presented in the Draft EIR, the project applicant is now proposing a Revised Project that no longer includes an at-grade rail crossing.

Response to Comment D-3

The City believes the Draft EIR did specifically identify environmental impacts associated with the then-proposed at-grade rail crossing, and an at-grade crossing is no longer being considered. If an at-grade crossing at this location had continued to be pursued, then detailed studies such as those recommended in these comments would likely have been necessary pursuant to conditions of project approval and/or pursuant to obtaining necessary permits and authorizations from other responsible agencies such as the CPUC, as was noted in the Draft EIR. Given that the Revised Project precludes an at-grade crossing, no subsequent studies on feasibility are warranted.

REUBEN, JUNIUS & ROSE, LLP

Matthew D. Visick
mvisick@reubenlaw.com

April 16, 2018

Delivered Via Email (TROBBE@ci.petaluma.ca.us)

Tiffany Robbe, Senior Planner
Petaluma Planning Department
11 English Street
Petaluma, CA 94952

Re: Sid Commons Apartment Project – Comments on Draft EIR

Dear Ms. Robbe:

On behalf of J. Cyril Johnson Investment Corporation, the sponsor of the Sid Commons Apartment Project (the “Project”), we submit these comments on the Draft Environmental Impact Report (“DEIR”) dated January 2018.

I. The DEIR Mistakenly Concludes that the Shasta Avenue Extension is Necessary to Support the 278 Units Proposed for the Project.

In its analysis of Alternative 4, the DEIR concludes that a maximum of 149 residential units would be possible at the site if the Shasta Avenue extension was eliminated from the Project. The DEIR states that the carrying capacity of Graylawn Avenue is 2,000 average daily trips (“ADT”) based on the categorization of Graylawn Avenue as a local residential road.¹ Based on an understanding that Graylawn Avenue currently carries approximately 954 ADTs, the DEIR reasons that Graylawn Avenue has a remaining capacity of 1,046 ADTs. After concluding that each additional unit created by the Project would add seven ADTs to Graylawn Avenue, the DEIR reasons that Graylawn Avenue could support a maximum development of 149 residential units ($1,046 / 7 = 149$).

As explained in the attached peer review from Transpedia Consulting Engineers (“TCD”), the DEIR overestimates the ADT per unit, overestimates the percentage of Project-related trips that would use Graylawn Avenue, and fails to consider the effect that alternative modes of

¹ As discussed in the peer review from TCD, it appears that Graylawn Avenue should be classified as arterial roadway, as it has the design capacity to accommodate at least 6,000 ADTs. (Exhibit A, p. 5.)

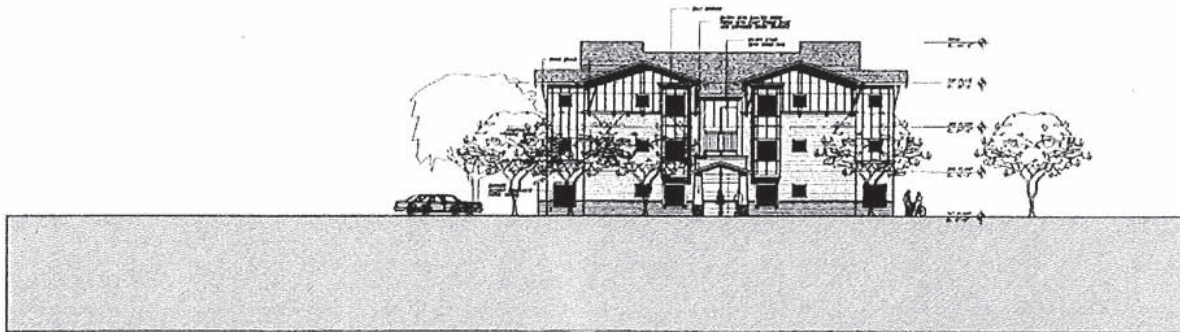
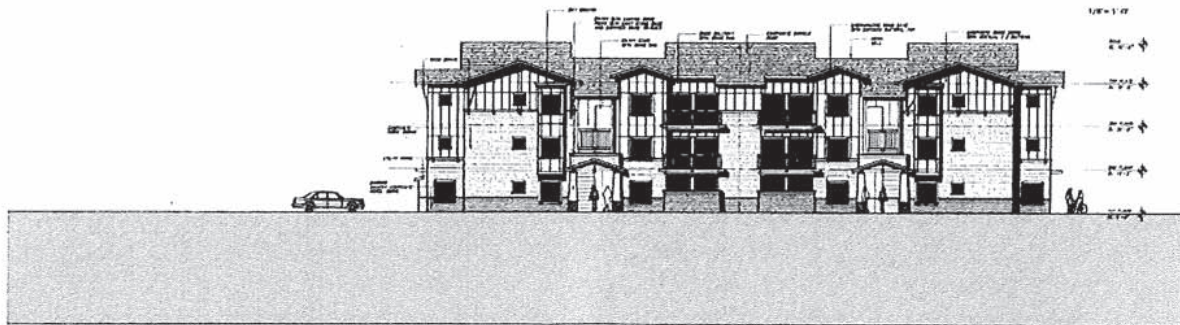
Letter E1 (continued)

Tiffany Robbe, Senior Planner
Petaluma Planning Department
April 16, 2018
Page 2

transportation—including the recently constructed SMART train station located approximately one mile away—would have on Project generated trips. (See Exhibit A.)

The DEIR bases its ADT estimates on the Institute of Transportation Engineers (“ITE”) land use characteristics for “apartments” (ITE Land Use 220) rather than “mid-rise apartments” (ITE Land Use 223). “Apartments” have an ADT of 6.5. However, “mid-rise apartments,” defined as apartments “in rental buildings that have between three and 10 levels (floors),” have an ADT of approximately 4 daily trips.² The Project analyzed in the DEIR is three stories in height (see illustration from Figure 3-8 of the DEIR below).³ Applying the corrected figure of 4 ADT per dwelling unit, the 278 units proposed for the Project would create a total of only 1,112 ADTs.

E1-1



TYPICAL SIDE ELEVATION

Based on an analysis of existing traffic turning movements at the intersection of Graylawn Avenue and Jess Avenue, only 88% of the ADTs from the Project would be expected to use Graylawn Avenue to access the Project. The remaining 12% would be expected to use Jess Avenue. This traffic turning analysis considered existing turning movements for vehicles going to and from the Oak Creek Apartments, which are located directly across the street from the

E1-2

² Exhibit A, p. 3.

³ The DEIR describes the Project as “a 278-unit apartment complex within *three-story structures*, along with a community clubhouse and an outdoor swimming pool . . .” (DEIR, p. 3-13 (emphasis added).)

Tiffany Robbe, Senior Planner
Petaluma Planning Department
April 16, 2018
Page 3

proposed Project. Given that only 88% of the Project's 1,112 ADTs would use Graylawn Avenue for access, the Project would add a total of 978 ADTs on Graylawn Avenue.

Further, it is likely that the Project would create even fewer ADTs given its proximity to the Downtown Petaluma SMART Station and the use of alternative modes of transportation anticipated in the General Plan. As explained in the peer review, the DEIR should have applied a trip reduction factor of 28% to the Project to account for these alternative modes of transportation. Had it done so, the Project's ADTs would have been closer to 800 total ADTs, of which only 704 ADTs would have been on Graylawn Avenue.

E1-3

As shown above and set forth more fully in the attached peer review, the 278 units proposed through the Project would not exceed the carrying capacity of Graylawn Avenue. Even without taking into account the effect that alternative modes of transportation would have on Project-generated trips, the ADTs from the Project would be well within the carrying capacity of Graylawn Avenue. If alternative modes of transportation were taken into account, the number of ADTs on Graylawn Avenue would be even fewer.

II. The DEIR Mistakenly Concludes that Alternative 3B Would Be the Environmentally Superior Alternative.

After weighing the relative benefits of Alternatives 2, 3A, 3B, and 4, the DEIR concludes that Alternative 3B would be the environmentally superior alternative. This conclusion was based primarily on an assumption that Alternative 3B "could reasonably support the financial costs associated with terraced grading" along the Petaluma River.⁴ As explained below, that assumption was incorrect.

In its consideration of the environmentally superior alternative, the DEIR rejected Alternative 2 because it does not achieve the objective of realizing flood control improvements through river terracing and rejected Alternative 3A because it does not allow development on the site in a manner that could further avoid protected trees, avoid direct removal or filling of wetlands, or avoid noise and vibration associated with the train.⁵ With these alternatives eliminated, the DEIR weighed the pros and cons of Alternative 3B and Alternative 4. The DEIR assumes that both Alternative 3B and Alternative 4 would include the flood control improvements through river terracing. The DEIR acknowledges that Alternative 4 comes closest to achieving the Project's objectives. However, based on the smaller development footprint of Alternative 3B, the DEIR concludes that Alternative 3B would be the environmentally superior alternative.

E1-4

As explained in the attached letter from the Project sponsor, the cost to build Alternative 3B would make the Project financially infeasible. (See Exhibit B.) Economies of scale are essential for Projects of this scope. If the Project were reduced to 79 units, as it would be under Alternative 3B, the per unit cost would drastically increase to roughly \$625,000 per unit. At a

⁴ DEIR, pp. 2-45 – 2-46..

⁵ As discussed below, recent case law clarifies that consideration of the impacts of the environment (e.g., train noise and vibration) on the project is improper under CEQA.

Tiffany Robbe, Senior Planner
Petaluma Planning Department
April 16, 2018
Page 4

total cost of \$49 million, a 79 unit project would cost more to build than it would be worth on the day it is completed. There would be no ability for the Project sponsor to obtain a permanent loan when construction was complete given this valuation. Even with the current demand for apartment units in Petaluma, a market that the Project sponsor knows well after three multi-family projects (Theater Square, Petaluma Villa Apartments, and Oak Creek Apartments), the rent that the proposed units would provide would not be enough to meet lenders' debt service coverage ratios. In fact, a 79 unit project would likely have a negative debt service coverage ratio. In short, the Project sponsor would be better off purchasing an existing development than it would be building a 79 unit version of the Project on this site.

The DEIR rejected Alternative 2 because it did not include the flood improvements that would come with the riverfront grading. It should do the same for Alternative 3B and conclude that Alternative 4 therefore presents the environmentally superior alternative.

III. Impacts Noise-1, Noise-2, and Noise-3 Improperly Consider the Effects of the Existing Trains on the Project.

Impacts Noise-1 and Noise-3 consider, among other things, noise impacts from trains on the Project and impose mitigation measures to address them. Impact Noise-2 considers impacts of train vibration on the Project and imposes mitigation measures to address it.

Recent case law from the California Supreme Court clarifies that analysis of the environment's impacts on a project—sometimes referred to as “reverse CEQA”—is not a proper subject for CEQA review. (*Building Industry Assn. v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369.)

E1-5

The analysis in Noise-1, Noise-2, and Noise-3 should be revised to eliminate discussion of the effects of the environment (train noise and vibration) on the proposed Project and eliminate all mitigation measures that are based on such effects.

IV. Impact Noise-4 Fails to Support Its Conclusion that Mitigation Measures Would Not Reduce Construction Noise Impacts to a Less Than Significant Level.

The DEIR engages in a substantial discussion of construction noise impacts and imposes six mitigation measures to address them. However, it then concludes, without any analysis, that construction noise levels “may not be able to be effectively attenuated to acceptable (i.e., 80 dBA) levels at these nearby residences with use of available noise reduction strategies” and that construction noise levels are therefore “conservatively considered to be significant and unavoidable.”⁶ There is no support for the conclusion that the six mitigation measures imposed through the DEIR will not adequately mitigate construction noise impacts. In fact, it would appear that mitigation measures such as Noise 4E, which requires noise barriers along property lines, would effectively mitigate these impacts to a less than significant level.

E1-6

⁶ DEIR, p. 13-28.

Tiffany Robbe, Senior Planner
Petaluma Planning Department
April 16, 2018
Page 5

We also note that the conclusion that construction noise impacts are significant and unavoidable is inconsistent with the conclusion reached in another Draft EIR recently released by the City. The Davidon/Scott Ranch Revised Draft EIR, dated March 2017, imposed similar mitigation measures to address construction noise impacts under similar conditions. However, after taking those measures into account, the Davidon/Scott Ranch Revised Draft EIR concluded that construction noise *would* be mitigated to a level of insignificance. There is no apparent difference between these two analyses or projects that explains the divergent results.

We urge the City to reconsider the impact conclusion in Noise-4 and whether the six mitigation measures would reduce construction noise impacts to a less than significant level.

V. Impact Transp-7 Mistakenly Concludes that Impacts Are Significant and Unavoidable Given the EVA Access at Bernice Court.

Impact Transp-7 concludes that the Project would create a significant and unavoidable transportation safety impact for emergency vehicles that would need access via the proposed Shasta Avenue rail crossing. However, Impact Transp-7 also acknowledges that the Project includes emergency vehicle access (“EVA”) via Bernice Court and that this Bernice Court access “would meet all emergency access requirements . . .”⁷ Given the Bernice Access would meet EVA requirements for the Project and emergency vehicles therefore would not need to use the Shasta Avenue crossing, there does not appear to be any support for the conclusion that the Project would create a significant and unavoidable transportation safety impact for emergency vehicles.

E1-7

We urge the City to reconsider the conclusion the impact conclusion in Transp-7.

Very truly yours,

REUBEN, JUNIUS & ROSE, LLP



Matthew D. Visick

Enclosures: Exhibit A – Letter from Transpedia Consulting Engineers
Exhibit B – Letter from Gary Johnson of Acclaim Properties

⁷ DEIR, p. 14-64.

Letter E2 - Transpedia (on behalf of Applicant)



April 12, 2018

Mr. Mark Johnson
Managing Director
Acclaim Companies
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via email only: mark@acclaimcompanies.com

Subject: Peer Review for Sid Commons Apartments Project Draft Environmental Impact Report

Dear Mr. Johnson:

Transpedia Consulting Engineers (TCE) has reviewed the traffic analysis of the following chapters and appendices of the *Sid Commons Apartments Project Draft Environmental Impact Report (DEIR)*, City of Petaluma, January 2018, with emphasis on Alternative #4 assumptions:

- Chapter 2- Executive Summary.
- Chapter 3- Project Description.
- Chapter 14- Traffic and Circulation.
- Chapter 18- Alternatives.
- Chapter 19- CEQA Conclusions.
- Appendix 14A- Traffic Count Data Sheets and Level of Service Worksheets, Fehrs & Peers, March 2017.
- Appendix 14B- Update of Existing Traffic Volumes and Intersection Operations, Fehrs & Peers, April 13, 2016.
- Appendix 14C- Graylawn Data Collection Summary and Roadway Capacity Analysis Memo, Fehr & Peers, April 13, 2016.
- Appendix 14D- 2016 Sid Commons DEIR Updated Assumptions and Scenarios, Fehr & Peers, August 7, 2016.

TCE also performed the following:

- A visit to the project site and surrounding roadway system on Sunday, March 18, 2018.
- Conducted traffic, pedestrian and bicycle turning movement counts during am peak period (7:00 am-9:00 am) and pm peak period (4:00 pm-6:00 pm) on Tuesday, March 27, 2018 at Graylawn Avenue/Jess Avenue intersection in the City of Petaluma, copy is attached.

The focus of this letter is to peer review project's DEIR traffic study in conjunction with the documents and information listed above with an emphasis on Alternative #4. The following is a summary of our review comments.

Mr. Mark Johnson
 April 12, 2018
 Page 2 of 6

Overestimated Project Peak Hour Trip Generation

The DEIR applied standard ITE rates for the “Apartment” land use or ITE Land Use 220 (Table 14-6, Page 14-25, DEIR). According to ITE’s description for this land use, “The studies included in this land use did not identify whether the apartments were low-rise, mid-rise, or high-rise.”

However, given the project’s three-story configuration, it is more appropriate to apply the ITE trip generation rate for “Mid-Rise Apartment” (ITE Land Use 223) instead. According to ITE’s description for this use, “Mid-rise apartments are apartments (rental dwelling units) in rental buildings that have between three and 10 levels (floors).” In summary, mid-rise apartments generate fewer trips per unit, which is consistent with land use and transportation research.

A comparison of the DEIR trip generation rates versus those that would be proposed using “Mid-Rise Apartment” rates is shown Table A. As can be seen in the table, the DEIR overestimated project’s trip generation by 57 trips during am peak hour (approximately 41% overestimate) and 63 trips during pm peak hour (approximately 39% overestimate).

E2-1

Table A- Project Trip Generation Comparison.

Land Use	Size	Daily		AM Peak Hour			PM Peak Hour				
				Trip Rate	In	Out	Total	Trip Rate	In	Out	Total
DEIR											
Apartment	278 DU	6.50	1,808	0.503	28	112	140	0.613	111	60	171
Proposed											
Mid-Rise Apartment	278DU	NA	NA	0.30	26	57	83	0.39	63	45	108
Net trip overestimate	NA	NA	NA	NA	2	55	57	0.223	48	15	63

Sources: Transpedia Consulting Engineers, 2018.
 Trip Generation, Institute of Transportation Engineers, 9th Edition, 2012.
 Sid Commons Apartments Project Draft Environmental Impact Report (DEIR), City of Petaluma, January 2013.

Notes: NA = not applicable or available; DU = Dwelling Unit.
 Mid-Rise Apartment (ITE Land Use Code 223) – daily = NA, AM = 0.30, PM = 0.39 trips/DU. Trip in/out distribution- AM 31/69%, PM 58/42%.

Mr. Mark Johnson
April 12, 2018
Page 3 of 6

Inflated Project Average Daily Trip Generation

The ITE manual does not provide a daily trip generation rate for “Mid-Rise Apartment” land use, just am and pm peak hour trip rates. Consequently, the “Apartment” daily rate was used to extrapolate the “Mid-Rise Apartment” daily rate by assuming that the proportion of average daily traffic (ADT) occurring in am and pm peak hours combined of both land uses would approximately be comparable (*Highway Capacity Manual, Transportation Research Board, 6th Edition, 2010*).

The “Mid-Rise Apartment” daily trip rate was estimated as follows:

- “Apartment” am and pm peak hour trips = $140 + 171 = 311$ trips, as shown in Table A.
- “Apartment” ADT = 1,808 trips per day, as shown in Table A.
- Proportion of “Apartment” ADT occurring in am and pm peak hours = $311/1,808 \times 100\% = 17.2\%$.
- “Mid-Rise Apartment” am and pm peak hour trips = $83 + 108 = 191$ trips, as shown in Table A.
- Proportion of “Mid-Rise Apartment” ADT occurring in am and pm peak hours = Proportion of “Apartment” ADT occurring in am and pm peak hours = 17.2%.
- $17.2\% = (191/\text{“Mid-Rise Apartment” ADT}) \times 100\%$.
- “Mid-Rise Apartment” ADT = $(191 \times 100\%)/17.2\% = 1,110$ trips per day.

In general, the proportion of average daily traffic (ADT) occurring in am and pm peaks hours ranges between 18% and 20% (*Highway Capacity Manual, Transportation Research Board, 6th Edition, 2010*), which is consistent with the above estimates.

As can be seen in the above table and calculations, the DEIR overestimated project’s daily trip generation by 698 trips per day ($1,808 - 1,110 = 698$ trips per day). This is approximately 39% overestimate.

Improper Trip Generation Assumptions for Alternative #4

As indicated in the description of DEIR’s Alternative #4 (*Page 18-46, DEIR*), Graylawn Avenue has currently “a maximum remaining capacity of 1,046 ADTs before exceeding the design standards”, which “equates to approximately a 149 multi-family residential unit project (at a fitted curve rate of approximately 7 daily trips per unit).”

It appears that Alternative #4 calculations used daily trip generation rates of the “Apartment” land use rather than the “Mid-Rise Apartment”. As indicated above, the project (278 apartments) is expected to generate 1,110 daily trips when a “Mid-Rise Apartment” land use is utilized, which equates to fitted curve rate of approximately 4 daily trips per unit in comparison to 7 trips used in Alternative #4 assumptions.

Using a fitted daily trip generation rate for “Mid-Rise Apartment” land use and the 1,046 daily trips of remaining capacity of Graylawn Avenue equates to approximately 262 multi-family residential unit project, which is 113 units higher than stated in the DEIR for Alternative #4.

E2-1

E2-2

Mr. Mark Johnson
April 12, 2018
Page 4 of 6

Excessive Project Trip Assignment to Graylawn Avenue

As indicated in DEIR's "Traffic and Transportation" section, "Primary access to the site pursuant to Alternative #4 would be via existing Graylawn Avenue" (Page 18-61, DEIR). This assumption is excessive and did not take into consideration that a portion of project's trips would utilize Jess Avenue to access project's site.

TCE has conducted traffic turning movement counts at Graylawn Avenue/Jess Avenue intersection during am and pm peak hours on Tuesday, March 27, 2018, copy is attached. The purpose of these counts is to estimate traffic trip assignment of the existing Oak Creek Apartments to each of these two streets. It is estimated that 88% of the apartment complex utilizes Graylawn Avenue to travel to/from the site while 12% utilizes Jess Avenue. It is assumed that the proposed Sid Commons Apartments project would follow this same trip assignment pattern.

Using 88% assignment rate of project trips to Graylawn Avenue and 1,110 daily trips for "Mid-Rise Apartment" land use, estimated earlier, it is estimated that approximately 977 daily project trips would be assigned to Graylawn Avenue, which is less than the 1,046 daily trips of remaining capacity of Graylawn Avenue assumed in the DEIR. In other words, the project's proposed 278 apartments would not cause traffic assigned to Graylawn Avenue to exceed the 2,000 ADT identified in the DEIR (existing ADT of 954 + project trips assigned to Graylawn Avenue of 977 = 1,931 vehicles per day).

Unrepresentative Average Daily Traffic for Graylawn Avenue

The DEIR overestimated Graylawn Avenue ADT (954 vehicles per day) by collecting the traffic counts in the week before Thanksgiving in 2015 and only during peak weekdays of that week (Page 14-4 and Appendix 14C, DEIR). The data was collected on Tuesday-Thursday, November 17-18, 2015, a week prior to Thanksgiving, which is known for its busy traffic of shoppers and travelers to other destinations.

Moreover, the data was only collected for the peak weekdays and avoided other days of the week (Friday through Monday, inclusive) where traffic is expected to be lower. The DEIR traffic data are not representative of average traffic conditions on this Graylawn Avenue and rather represents a worst-case traffic scenario that occurs in a few days of the year.

The American Association of State Highway and Transportation Officials (AASHTO) defines ADT as "the total volume during a given time period (in whole days), greater than one day and less than one year, divided by the number of days in that time period" (*A Policy on Geometric Design of Highways and Streets, AASHTO, 2011, 6th Edition*). On the other hand, Caltrans defines ADT as "The average 24-hour volume of traffic, being the total volume during a stated period divided by the number of days in that period. The period is a year, unless stated otherwise." (*Encroachment Permit Manual, Caltrans, July 2013*). These two definitions do not specify which days to use and left it to professional judgment.

It is our professional judgment that traffic counts for this location should have been conducted in another week representing typical traffic conditions on Graylawn Avenue during a full week (Sunday through Monday, inclusive) when Petaluma schools are in session.

E2-3

E2-4

Mr. Mark Johnson
April 12, 2018
Page 5 of 6

Inadequate Roadway Classification and Capacity

The DEIR classified Graylawn Avenue as a residential roadway with a maximum capacity of 2,000 average daily trips (Page 14-4, DEIR). However, the DEIR misclassified Payran Street as a collector roadway rather than an arterial roadway as classified in City's General Plan (Figure 5-1, Street Classification, City of Petaluma: General Plan 2025, May 2008, Revision Date: January 11, 2012).

As a designated arterial roadway, the City of Petaluma Street Standards intends that Payran Street has a capacity of 6,000-25,000 average daily trips (City of Petaluma Department of Engineering Street Standards, Design and Application Guidelines, March 28, 1997). Furthermore, Payran Street topology fits the attributes of a 2-lane main street arterial classification in the City's General Plan (Table 5.2-1: Typical Attributes of Different Street Types City of Petaluma: General Plan 2025, May 2008, Revision Date: January 11, 2012).

E2-5

However, the DEIR failed to utilize the above table to compare the attributes of Payran Street and Graylawn Avenue. Our review of street design plans and field visit indicate that both roadways have comparable attributes including lane widths and speed limits (Improvement Plans, Linda Del Mar No. 1 Subdivision, October 16 & 17, 1959). Both streets have 2-20' lanes and 2-10' sidewalks.

Therefore, Graylawn Avenue is expected to be able to carry traffic capacity comparable to Payran Street or 6,000 average daily trips at minimum as indicated in the City's Street Standards (6,000-25,000 ADT for arterials). Furthermore, the Petaluma General Plan classifies Graylawn Avenue future extension as a collector roadway, which also supports higher capacity assumptions for this roadway (2,000-6,600 ADT for collectors).

Incomplete Alternative Modes of Transportation Analysis

The DEIR analysis of alternative modes of transportation is incomplete and does not include any information regarding travel characteristics or mode split of the Petaluma residents (Pages 14-17 to 14-21, DEIR). The City's General Plan indicates that 72.1% of residents drive alone to work and 27.9% utilize other modes of transportation including carpool, transit, walk, worked at home, bicycle, motorcycle (Table 3.2-1: Journey to Work by Mode of Travel, Petaluma Residents, City of Petaluma: General Plan 2025, May 2008, Revision Date: January 11, 2012).

E2-6

Furthermore, the Sonoma-Marin Area Rail Transit District (SMART) is now operational and the Petaluma downtown station is approximately 1.2 miles from the project site; consequently, more residents are expected to shift from driving alone to biking to this station to take the train.

Moreover, the DEIR failed to utilize the above mode split ratios to reduce project's trip generation estimates. As a conservative scenario, 28% reduction factor is recommended to be applied to project trip generation. When this factor is applied to project's "Mid-Rise Apartment" trip generation estimate (1,110 daily trips), a lower project trip generation estimate is more appropriate (799 daily trips).



Letter E2 (continued)

Mr. Mark Johnson
April 12, 2018
Page 6 of 6

In other words, the project's proposed 278 apartments would not cause traffic assigned to Graylawn Avenue to exceed the 2,000 ADT identified in the DEIR (existing ADT of 954 + project trips assigned to Graylawn Avenue of 799 = 1,753 vehicles per day). Therefore, Graylawn Avenue is expected to have 247 trips extra capacity after the 278 apartments are built and occupied; the extra street capacity (247 trips) translates to approximately 62 mid-rise additional apartments in addition to the 278 apartments of the Sid Commons Apartments project.

We appreciate the opportunity to provide this DEIR peer review for you.

Sincerely,

Transpedia Consulting Engineers



Mousa Abbasi, Principal
Ph.D., P.E., T.E., P.T.O.E.
California Professional Civil Engineer No. 67935
California Professional Traffic Engineer No. 2324
Professional Traffic Operations Engineer No. 1297

Attachment- Grawlawn Avenue/Jess Avenue Intersection Traffic Counts.

Letter E3 - Acclaim Companies (Applicant)



125 Willow Road
Menlo Park, CA 94025

P 650.324.9439
www.acclaimcompanies.co

April 16, 2018

Tiffany Robbe, Senior Planner
Petaluma Planning Department
11 English Street
Petaluma, CA 94952

**Re: Sid Commons Apartment Project
Draft EIR, Alternatives 3A and 3B**

Dear Tiffany:

I am a partner at Acclaim Companies which proposes to develop the Sid Commons project for J. Cyril Johnson Investment Corporation. I have deep experience in acquisitions and financing, which I bring to all of the projects we develop and manage. After obtaining my MBA from the Wharton School of Business, I worked for several years at Gold Hill Capital, a \$250 million venture fund, where I underwrote early stage technology investments. At Acclaim, I help to manage our existing properties and evaluate the financial viability of potential development opportunities like the Sid Commons project. I am also very familiar with the Petaluma housing market. As you probably know, Acclaim has been active in the Petaluma development community, including Theater Square, Petaluma Villa Apartments, and Oak Creek Apartments.

The discussion of Alternatives 3A and 3B in the Draft EIR anticipate that a 79-unit development that includes the river front terracing to address flood control issues along the Petaluma River is financially feasible when in fact it is not. For the reasons described below, a 79-unit development with the river front terracing would not work from a financial perspective.

Our analysis shows that a 79-unit development with riverfront grading would be expected to cost approximately \$49 million to develop, or roughly \$625,000 per unit. The net operating income of that 79-unit project in year 1 is \$1.8 million. At the standard 5.25% capitalization rate, that is equal to \$34 million. In other words, the value of the project when completed (\$34 million) is less than the cost to build it (\$49 million). A developer could not get a permanent loan for such a project once it was completed, and without the potential to get a permanent loan the project would not get developed.

E3-1

Letter E3 (continued)

Tiffany Robbe, Senior Planner
Petaluma Planning Department
April 26, 2018
Page 2

The capitalization rate of the 79-unit project in Alternatives 3A and 3B is less than the capitalization rate would be if we were to purchase an existing building. The capitalization rate for the 79-unit project in Alternatives 3A and 3B is roughly 3.65%, which is significantly lower than the 5% capitalization rate that most existing projects are trading at currently. Without a capitalization rate of at least 8.0%, most developers would decide against taking on the risk of developing a new project. There is no certainly no reason to take on the risk of developing a new project when the capitalization rate of existing projects is higher.

Finally, the debt service coverage ratio for the 79-unit project would not allow for lender financing. Based on our research and our experience of owning two multifamily projects in Petaluma, the upper limit on a brand new, garden style two-bedroom unit during the lease-up phase is \$2,950/month. The upper limit on a garden style one-bedroom unit during a lease-up phase is \$2,450/month. The debt service coverage ratio (annual Net Operating Income/annual debt service) lenders require for a garden style project in a bay area submarket such as Petaluma is at least 1.4. The 79-unit project would have a negative debt service coverage ratio.

I hope that this clarifies that the 79-unit projects discussed under Alternative 3A and Alternative 3B are not financially viable. Far more units would be required to rationalize the cost of developing the project along with the river front terracing.

Sincerely,



Gary Johnson
Partner, Acclaim Companies

E3-1

Response to Letter E1 Reuben, Janius & Rose, representing the Project Applicant

Response to Comment E1-1

Please see Chapter 4, Master Response to Comments on Traffic specific to trip generation rates.

Response to Comment E1-2

Please see Chapter 4, Master Response to Comments on Traffic specific to trip distribution. As indicated in that Master Response, a percentage of project-related traffic will likely access the site using the Graylawn to Jess Avenue route to/from Payran Street. Using the trip generation rates for the Revised Project and the trip distribution assumptions for traffic on Graylawn and Jess Avenue, the total traffic volumes on both Jess Avenue and Graylawn have been re-calculated, as indicated in the Master Response.

Response E1-3

Consistent with the City Traffic Impact Fee program, reduced automobile trip generation may be considered by the City if the housing development is located within ½ mile of a transit station, and if there is direct access between the housing development and the transit station along a barrier-free, walkable pathway not exceeding ½ mile in length. The project site is not located within ½ mile of a transit station (as noted in this comment, the Project site is approximately 1.2 miles from the nearest transit station) and there is no direct pedestrian or bicycle route from the site to the station. No reductions in trip generation rates due to proximity to the Downtown SMART Station are applicable.

Response to Comment E1-4

The Alternatives chapter of the Draft EIR included a range of potential alternatives to the original Project that could feasibly accomplish most of the basic objectives of the original Project and could avoid or substantially lessen one or more of its significant environmental effects. It also included sufficient information about each alternative to allow meaningful evaluation, analysis and comparison. As part of that comparison, the Draft EIR recognized that Alternative #3B would achieve to a lesser degree many of the Project's basic objectives:

- The substantially reduced number of units under Alternative 3B (79, total) would not reduce pressures to expand the existing UGB to support future residential development to the same extent as the Project or as Alternative #4
- Alternative 3B would add only slightly to the City's stock of available multi-family housing, and
- It is not certain that Alternative 3B could reasonably support the financial costs associated with terraced grading

Consistent with CEQA Guidelines Section 15126.6, the reasons for selection of an environmentally superior alternative were fully disclosed in the Draft EIR. In general, the environmentally superior alternative is the alternative that would generate the least significant impacts. For the reasons stated in the Draft EIR, the alternative that generated the least significant environmental impacts was Alternative 3B. Alternative 4 was rejected as the environmentally superior alternative because it would not provide for terraced grading needed to address the City's General Plan approach to flood control, an important environmental consideration. As noted in the Draft EIR, identification of Alternative 3B as the environmentally superior alternative is an informational procedure, and the environmentally superior alternative may or may not be the alternative that best meets the goals or needs of the applicant or the City.

Response to Comment E1-5

Comment noted. It had been industry standard (and included in CEQA Guidelines, Appendix G) to consider a project's impact as significant if it would expose persons to noise levels in excess of standards established in the General Plan or Noise Ordinance, or would expose persons to excessive groundborne vibration. However, consistent with the California Supreme Court holding in *California Building Industry Association v. Bay Area Air Quality Management District* (2015, 62 Cal. 4th 369) and with the October 2018 revisions to Appendix G, the effects of the environment on the project (i.e., exposure to excessive ambient noise or groundborne vibration levels) are not significant impacts under CEQA.

This understanding of CEQA does not preclude the City of Petaluma's discretionary actions on projects from implementing noise or vibration standards established in the General Plan or Noise Ordinance, or other applicable standards of other agencies, as conditions of project approvals. Therefore, discussion of the Project's relationship to noise and vibration standards is not removed from the Draft EIR, but instead re-cast as relevant informational analysis. Mitigation measures are re-defined as recommended conditions of approval pursuant to applicable General Plan policy and regulatory standards (see Chapter 7: Revisions to the Draft EIR).

Response to Comment E1-6

Comment noted. City of Petaluma has not adopted a numeric threshold for evaluation of temporary increases in noise resulting from a project's construction activities, and thresholds used in the Draft EIR are different from those used in the 2017 Davidon/Scott Ranch Revised Draft EIR, the Rainier Cross Town Connector EIR, the Petaluma Riverfront Development Project EIR and the Haystack Mixed-Use Project CEQA document. The Draft EIR relied on thresholds for construction noise generated during an 8-hour and/or 1-hour period, whereas these other recent City of Petaluma CEQA documents used thresholds as averaged over a 1-year period. Use of these different thresholds explains the different conclusion reached in these documents. For consistency with thresholds for construction noise as established in these other CEQA documents that have been certified by the City, the conclusions of the Draft EIR are therefore revised, consistent with the following.

Construction noise impacts do not generally occur when the noisiest construction activities do not exceed the ambient noise environment by 5 dBA Leq for a period greater than one year. Although the overall construction duration for the Sid Commons Project will exceed one year, the noisiest construction activities including site preparation and grading are expected to be completed in under a year. Additionally, as construction activities move away from the site margins and interior construction work proceeds, noise levels in the Project site vicinity will be greatly reduced. Furthermore, implementation of construction noise controls measures as required pursuant to Mitigation Measures Noise 4A: Construction Hours, Noise 4B: Construction Engine Controls, Noise 4C: Stationary Equipment and Staging, Noise 4D: Miscellaneous Construction Noise, Noise 4E: Noise Barriers (as amended) and Noise 4F: Noise Disturbance Coordinator represent all reasonable and feasible noise attenuation strategies typically applied to reduce construction related noise to levels below significance. Typically, significant noise impacts do not result when the construction period noise control measures are enforced. Therefore, the Sid Commons Project would result in construction noise impacts similar to other development projects throughout the City that have been found to be less than significant. There is nothing unique or peculiar about the construction activities at the Project site that would indicate its construction noise impacts would be substantially different or more severe.

The mitigation measures presented in the Draft EIR, which are generally the same measures presented in other City-certified CEQA documents (see Chapter 7: Revisions to the Draft EIR), represent all reasonable and feasible noise attenuation strategies that can be applied. Implementation of all mitigation measures identified in the Draft EIR would reduce the exposure of sensitive receptors to excessive noise during construction to a less than significant level because the highest noise levels that would be experienced by

adjacent sensitive receptors would only occur for a limited duration during construction activity. Not all construction activity associated with the Revised Project would occur in immediate proximity to adjacent neighbors, and construction that does occur adjacent to existing neighbors is unlikely to individually last for more than 1 year (see Chapter 7: Revisions to the Draft EIR).

Response to Comment E1-7

Even with use of the Bernice Court EVA, the Draft EIR (page 14-64) concluded that the Shasta Avenue Extension with an at-grade vehicle crossing of the SMART rail tracks would have been a direct and immediate safety hazard. This conclusion was based on correspondence with the Petaluma Fire Department, which found that site access via an at-grade rail crossing would have a higher likelihood of being blocked than does a typical street, and that the at-grade crossing would have been a potential threat to life and safety.¹

As also noted in the Draft EIR (page 14-67), without the Shasta Avenue Extension across the rail tracks (i.e., such as now proposed under the Revised Project) there would be only one primary point of vehicle access from Graylawn Avenue, with an emergency EVA access at Bernice Court. The Bernice Court EVA would provide an acceptable fire apparatus roadway meeting all turning radius and turnaround requirements of the Petaluma Fire Code and would meet emergency access requirements. In 2014, the EVA design was reviewed and accepted as sufficient, and in 2019, the City Engineer and Fire Marshal reviewed this prior determination and accepted that same conclusion. In addition, the City Fire Marshal recommended the EVA connection at Bernice Court include design measures including, but not limited to bollards, red curb or red pavement striping, no-parking signage, etc., intended to prohibit parking and other obstructions at this EVA access and to ensure that the Bernice Court EVA is continuously available for emergency use. With these design recommendations, no roadway hazards or hazards for emergency vehicles accessing the site would occur, and the impact would be less than significant (see Chapter 7: Revisions to the Draft EIR).

Response to Letter E2 Transpedia Consulting Engineers, on behalf of the Project Applicant

Response to Comment E2-1

Please see Master Response to Comments on Traffic specific to trip generation rates.

Response to Comment E2-2

Please see Master Response to Comments on Traffic specific to trip generation rates.

Response to Comment E2-3

Please see Master Response to Comments on Traffic specific to trip distribution. As indicated in that Master Response, a percentage of project-related traffic will likely access the site using the alternative Graylawn to Jess Avenue route to/from Payran Street. Using the trip generation rates for the Revised Project and the trips distribution assumptions for distributions of traffic on Jess Avenue, the total traffic volumes on both Jess Avenue and Graylawn have been re-calculated.

¹ Personal communication, Petaluma Fire Department, October 2014 and 2019

Response to Comment E2-4

Please see Master Response to Comments on Traffic specific to the accuracy and applicability of traffic counts. In response to numerous comments on the topic of Graylawn Avenue traffic volumes, traffic has been re-counted for this Response to Comments document.

Response to Comment E2-5

The comment is correct that the Draft EIR characterized Payran Street as a collector street, whereas the General Plan Street Classifications Diagram shows Payran as an arterial street (see Chapter 7: Revisions to the Draft EIR). However, the General Plan Street Classifications Diagram clearly shows that Payran Street and Graylawn Avenue do not have the same street classifications, and that the General Plan does not include any plans for a future extension of Graylawn as an arterial or collector street. Irrespective of right-of-way and paving widths, Payran Street and Graylawn Avenue have very different characteristics related to intended traffic carrying capacity, roadway length and cross-street connections, traffic controls and adjacent land uses. City of Petaluma Street Standards for Payran Street and Graylawn Avenue are clearly and intentionally different.

Response to Comment E2-6

Please see Master Response to Comments on Traffic specific to trip distribution, and Response to Comment E1-3 above. The Project site is located further than ½ mile from a transit station and no reductions in trip generation rates are applicable.

Response to Letter E3 Acclaim Companies, Project Applicant

Response to Comment E3-1

Please see Response to Comment E1-4 above on this same topic. The Draft EIR recognized that Alternatives #3A and #3B (at only 79 units) might not be able to support the costs associated with terraced grading. The financial information included in this letter will be provided to the City Planning Commission and City Council for their use in deliberations on the merits of the proposed project (now the Revised Project, at 205 units).

City of Petaluma Planning Commission
11 English Street
Petaluma, CA 94952

RE: Sid Commons Apartment Complex

April 22, 2018

Dear Commissioners,

This letter is submitted in response to the DEIR for the proposed Sid Commons Apartment Complex, located at the terminus of Graylawn Ave. on lands along the upper Petaluma River. I am a resident in the adjacent neighborhood with a home at 36 Jess Ave., behind the flood wall just downstream of the proposed project. In terms of qualifications for reviewing the environmental documents on this project, I have been employed by the County of Marin as a Senior Planner within the Public Works Flood Control Division for 20 years. My work focuses on environmental compliance for public infrastructure projects related to rivers and wetlands. I hold a MA from UC Berkeley in Environmental Planning with a focus on riverine science and watershed restoration.

Site Constraints- River Corridor, Floodplain Habitat and Flood Control

In terms of density, this is not the place within the City of Petaluma to stake claim for dense urban infill. The land on which the development is proposed contains sensitive wetlands and prized riparian habitat that are highly valuable and irreplaceable. In the Petaluma River Access and Enhancement Plan (pg. 62) this upstream segment of the river corridor is recognized as "the most environmentally sensitive reach of the river... the largest stands of native riparian trees occur in this segment and this riparian grove is recognized as a unique resource to be protected and enhanced." A visitor to the site during the rainy season will see immediately that the floodplain along this reach is covered in wetlands which serve as a sponge to "slow, sink and spread water run-off" before it can reach the river. This currently unpaved, floodplain area serves to protect water quality and delay peak flows which threaten flooding downstream in the downtown area of the City. Heritage oak trees line the channel and the abundant wildlife out there now depends on an intact river corridor for its existence. In summary, any proposed development along this reach needs to go beyond the ordinary in its protection of a healthy floodplain and riparian corridor. These floodplain areas are environmental treasures held in the public trust of the City that provide important environmental services for our community and are absolutely irreplaceable once they are paved over.

F-1

Density of Development

City Planner Tiffany Robbe spent considerable effort defining the various setbacks from the river that are mandated in the City of Petaluma General Plan, the River Access and Enhancement Plan and the FEMA Floodplain maps. As shown on various maps throughout the DEIR, the proposed development at 279 apartment units with 400 parking spaces encroaches considerably into the river setback areas. Buildings have been placed within the setback and extensive riparian habitat would need to be removed to accommodate structures and construction. Wetlands across the site would be paved over and the level of impermeable surface created by this density of development will cause run-off to reach the river almost immediately with little room to "slow, sink and spread" before it reaches the channel. This would cause negative impacts to water quality and poses a flood risk of increased peak flows in the downtown area. There is just not enough space on the property to accommodate this level of development while creating any type of meaningful bio-engineering solutions such as vegetated swales, detention ponds or man-made wetlands. In my analysis, the proposed density of 279 apartment units with 400 parking spaces on this highly sensitive property would create unmitigatable impacts that cannot be avoided.

F-2

F-3

F-4

Floodplain Terracing and Density of Development

The proposed project and several of the Alternatives include terracing of the right river bank for flood control purposes. The City of Petaluma has been implementing this same terracing approach under grant programs in the upstream reaches of the river. The City is enthusiastic about having the developer include additional terracing as part of the proposed development. Modeling completed by West and Associates (Sid Commons Hydraulic Evaluation memo; Feb 2017) shows that terracing at the project site would have a positive effect on flooding in the immediate area of the

Letter F (continued)

project and a less, but still positive effect, on flooding upstream of Corona Road. It also shows a small yet insignificant increase in water surface elevation downstream in downtown Petaluma, due in part to eliminating the sponge-like ability of the floodplain to store water after a storm within the project area. This is a trade-off that the consultants describe that needs to be publicly acknowledged. While I support the idea of including the terracing in the SID Commons project, I am concerned about this increase of flood risk downtown and question whether the modeling, which is based on 2010 FEMA map revisions, takes into account the level of sediment that has built up in the channel over the past eight years. Given my history with working on dredging for flood control in Marin and knowing how the Army Corps is not rising to their responsibilities on funding for these highly expensive projects, I do not believe that the City should make any decisions for development that are based on the need to dredge the river. In particular, if the cost of the terracing put on the developed drives the need to develop the property more densely, a cost benefit analysis need to be further explored and the assumptions behind the modeling need to take into account current river conditions. Therefore I believe that this is an impact that could be significant that has not been fully analyzed.

F-5

Public Access to the River and Non-Motorized Transportation

The proposed trail within the development winds along the river and is described as meeting the River Access and Enhancement Plan goals to provide the public access to the river. I think we need to be very clear however that this trail does not provide actual river access for boating nor does it connect to any other trails along the river or to any other destinations within the City. Anyone wishing to link to shopping areas or the existing river trail system on foot or bicycle will need to travel out of the development and onto busy city streets at Payran which does not have a bike lane. So, while I do believe that a trail along the river area should be a mandated addition for the residents who would live there, I do not believe it should be used as a mitigation for any other external impacts from the project, such as increased traffic or carbon emissions.

F-6

Traffic Impacts

Given the unlikelihood that the crossing at Shasta Ave. will be approved (DEIR Summary), as a resident of the neighborhood accessed by Graylawn Ave., I am concerned that the chosen alternative will increase traffic in this neighborhood to a level unacceptable for the size and rating of the existing streets. The 1984 PUD agreement for the adjacent Oak Creek Development explicitly states that any development on parcel (09) would not be allowed to exit via Graylawn Ave., thus protecting this neighborhood into perpetuity from becoming a thoroughfare for greater development. If the proposed project or any of the alternatives which include parcel (09) are selected, the PUD would need to be revised and Graylawn would be the default recipient of the traffic from the proposed project. Rated for a maximum of 2000 cars per day, the development at 149 units (Alternative 4) doubles existing traffic on this road, taking it to capacity and the proposed project at 279 units takes it way beyond capacity. Thus, the selection of Alternatives is critical in terms of protecting the neighborhood and causing greater traffic impacts on Payran Ave, which is already a dangerous street to navigate during school commute hours. If the PUD is reversed and a project description is selected that puts traffic from the development onto Graylawn and then Payran Ave., then the DEIR should be recirculated so that residents in the neighborhood and those impacted by increased traffic on Payran Ave. would be alerted to the transportation issues that this revised project description would bring up.

F-7

Climate Change and Sea Level Rise

Give the tidal nature of the Petaluma River and its connection to the San Francisco Bay, I do believe that the DEIR sufficiently analyzed the potential impacts from Sea Level Rise on flooding both in the project area and in the downstream reaches of river impacted by the project. Therefore I believe that the DEIR at this state is incomplete without further analysis of impacts from Sea Level Rise on the project.

F-8

Sincerely,

Kallie Kull; resident of 36 Jess Ave. Petaluma, CA 94952

cc: Tiffany Robbe; City of Petaluma Planning Department

Response to Letter F Kallie Kull, 4-22-18

Response to Comment F-1

The project site is located within the City of Petaluma's Urban Growth Boundary and a majority of the site has a General Plan land use designation of Medium Density Residential (MDR). The MDR land use designation permits housing at a density of 8.1 to 18 dwelling units per net acre, as was proposed pursuant to the original Project and is now proposed pursuant to the Revised Project. The proposed land use type and density are consistent with the General Plan, and the site is immediately contiguous to lands with the same medium density residential land use designation to the east and west.

As to those portions of the site that are considered floodplain, the Draft EIR identified the following regulatory and policy definitions of flood-related areas:

- **Floodway:** The General Plan designates approximately 2.02 acres of land immediately adjacent to the River as Floodway. The Floodway land use designation does not permit land use development for residential purposes. No residential development within the Floodway was proposed pursuant to the original Project, and no development within the Floodway is now proposed pursuant to the Revised Project.
- **Flood Easement:** There is an existing 400-foot wide hydraulic maintenance and public access easement recorded on Parcel Map #307 (partially including the project site), referred to as a Flood Easement. Petaluma General Plan Policy 8-P-30 establishes this easement as a 200-foot setback from the centerline of the Petaluma River. On the project site, the Floodway lies entirely within this Flood Easement. Like the original Project, the Revised Project does not propose any new structures within the Flood Easement. Also like the original Project, work proposed within the Flood Easement pursuant to the Revised Project is limited to terraced grading, habitat restoration, construction of a riverbank trail and installation of an overlook. Each of these improvements is consistent with the hydraulic maintenance and public access description of the Flood Easement.
- **100-Year Floodplain:** The National Flood Insurance Program uses FEMA's Flood Insurance Rate Maps (FIRMs) to identify locations of special flood hazard areas, including the 100-year floodplain (or 100-Year Flood Zone). The Petaluma River Basin Flood Plain is defined as those areas of Special Flood Hazard as identified in Flood Insurance Rate Maps effective as of February 19, 2014. Pursuant to Petaluma General Plan Policy 8-P-37, no new inhabited structure or development shall be entitled within that 100-year floodplain. Like the original Project, the Revised Project does not propose any inhabited structure within the 100-year floodplain.
- **Petaluma River Corridor:** Portions of the site have a combining land use designation (or overlay) of Petaluma River Corridor (PRC). The PRC overlay applies to those portions of the site needed for implementation of the Petaluma River Access and Enhancement Plan (River Plan). The PRC overlay is intended to provide for floodplain management projects (e.g., terracing of the riverbank for increased flood channel capacity) and for preservation of important river-related habitat. The Draft EIR specifies those portions of the site that are within the PRC overlay, and residential development is not permitted within the PRC. The original Project had proposed to remove mature oak trees from the Preservation Zone and had proposed to develop residential land uses within portions of the PRC in a manner that conflicted with the preservation policies of the River Plan. This inconsistency with the River Plan was clearly identified in the Draft EIR. The Revised Project is now set back away from the River such that it no longer encroaches into the PRC or its Preservation Zone (see further detail in Chapter 2: Revised Project, in this document).

- **Petaluma River Ordinary High Water Line:** The Petaluma River flows along the northerly boundary of the site. The portion of the River that lies below the ordinary high-water line is defined as “waters of the U.S.”, and is under the jurisdiction of the US Army Corps of Engineers (US ACE) and are also considered Waters of the State and regulated by the Regional Water Quality Control Board, San Francisco District (RWQCB) under CWA Section 401 and/or Porter-Cologne Act. These Waters of the US comprise approximately 0.92 acres of the site.
- **Seasonal Wetlands:** Eight separate seasonal wetland areas comprising approximately 0.62 acres were identified on the site during a wetlands assessment conducted by WRA in February 2012. These wetlands were confirmed by the US Army Corps of Engineers in January 2013 and re-confirmed in January 2019.² These seasonal wetlands are jurisdictional under Section 404 of the Clean Water Act (CWA) and regulated by the Corps, and are also considered Waters of the State and regulated by the Regional Water Quality Control Board, San Francisco District (RWQCB) under CWA Section 401 and/or Porter-Cologne Act. These wetland areas include a deeper seasonal wetland of 0.28 acres near the River, a 0.01-acre wetland near the River, and six small seasonal wetlands comprising 0.33 acres that are isolated from the River and above the 100-year flood elevation located on the westerly portion of the site near the SMART rail line. Like the original Project, the Revised Project will involve work in two areas. Work in the upland area as part of the residential development will result in fill of the 0.33 acres of seasonal wetlands near the SMART rail corridor. The seasonal wetlands are dry most of the year. The largest seasonal wetland (approximately 0.28 acres in size and located along the upper bank of the River) will be preserved. Construction work for the Petaluma River terrace will involve fill to the 0.01-acre wetland and disturbance to riparian areas immediately adjacent to the River. New wetlands and riparian habitat restoration will be created as part of the Project’s HMMP (please see Master Responses regarding Loss of Wetlands and Riparian Habitat).
- **Riparian:** In addition, a total of approximately 1.97 acres of riparian scrub habitat are present along the Petaluma River, which are subject to the jurisdiction under Fish and Game Code 1602 and regulated by California Department of Fish and Wildlife (CDFW).

The portions of the site listed above are those areas defined by policy, regulation or jurisdiction as being related to floodplains or wetlands.

The remainder of the site consists of uplands areas with habitat features consistent with either ruderal non-native grasslands or valley oak woodlands, as indicated in Figure 6-3 of the Draft EIR. Soil types in the uplands portions of the site include Clear Lake clay and Yolo Clay loam, both of which are deep and poorly drained soils. Soil type Arbuckle gravel loam is present in the northwest portion of the site, generally conforming to the oak woodland habitat near the SMART tracks and River Corridor. This area of the site, where residential development is proposed, does not contain riparian vegetation, is not located within the floodplain or floodway and does not support wetland features, excepting the 0.33 acres of small seasonal wetlands proximate to the rail tracks.

Response to Comment F-2

The Draft EIR identifies impacts associated with the original Project that are similar to those listed in this comment. With only minor exceptions of a sidewalk and a bio-retention feature, the Revised Project is now located fully outside of the Petaluma River Corridor, consistent with Draft EIR Mitigation Measure Bio 10A (as amended), and outside of the floodway and the floodplain. Please also see Response to Comment F-3 below, and Master Responses to Comments regarding Loss of Wetlands and Riparian Habitat, and Master Response to Comments regarding Stormwater Quality.

² Department of the Army San Francisco District, U.S. Army Corps of Engineers Regulatory Division, Subject: File Number 2004-255710, letter to Mr. Doug Spicher, Wetland Research Associates, dated January 30, 2019

Response to Comment F-3

Please see Master Response to Comments on Flooding specific to the issue of stormwater runoff, and Master Response to Comments on Water Quality. These Master Responses addresses both stormwater runoff volume and timing relative to flooding conditions, and the water quality of stormwater runoff.

Response to Comment F-4

Please see the Revised Project Description (Chapter 2) and the Comparative Environmental Analysis (Chapter 3) of this document. These chapters fully describe current proposal (the Revised Project) to develop 205 residential units on the site. They also describe and provide analysis of the Revised Project's greater conservation of natural areas of the site, compliance will all River setback ordinances and requirements, and its proposal for providing treatment of stormwater runoff in facilities sized and designed according to BASMAA criteria.

Response to Comment F-5

Please see Master Response to Comments on Flooding specific to consideration of increased sedimentation of the River channel.

Costs associated with creating a terraced riverbank channel are likely an important consideration of the applicant. The EIR process focuses only on those potential environmental effects of the project and applicable mitigation measures, and does not seek to balance development costs and returns on investments. The Draft EIR fully analyzed the impacts to hydrology and biological resource associated with terraced grading, and presented a comparison of the environmental pros and cons (biology and hydrology) associated with terraced grading in the Alternatives chapter. No recirculation of the Draft EIR is necessary relative to these issues, including how the Revised Project now responds to these concerns as part of its reduced development density and increased River setbacks.

Response to Comment F-6

The project (both the original Project and the Revised Project) includes a pedestrian/bicycle trail along its frontage to the Petaluma River, connecting to the existing trail terminus at the Oak Creek Apartments. Due to the barrier of the SMART rail tracks, no trail connection to the SMART Pathway Project multi-purpose trail to the west of the project boundaries is possible. The Draft EIR did not "credit" any trip reductions, or air quality or greenhouse gas emission reductions to the original Project (nor have any such reductions been credited to the Revised Project) for providing the onsite trail (note that Payran Street includes a Class 3 bike facility.)

Response to Comment F-7

The traffic implications of the original Project (both with and without the Shasta Avenue Extension) were fully studied in the Draft EIR. The Draft EIR alternatives chapter also analyzed the traffic impacts associated with a full range of alternatives to the Project that did not rely on the Shasta Avenue Extension and that would add increased traffic to Graylawn Avenue. The original Project and each of these alternatives were analyzed against the City's established level of service (LOS) thresholds for intersection operations. Neither the original Project nor any of the alternatives were found to result in significant LOS impacts at the Graylawn Avenue/Payran Street intersection or any other intersection along Payran Street. Accordingly, the Revised Project, which is proposed at 205 units (or a density lower than the original Project but greater than several of the alternatives) would generate traffic levels at intersections on Payran Street within the range of traffic levels previously analyzed, and would similarly not result in significant level of service impacts. Please see Master Responses to Comment on Traffic specific to trip generation rates, traffic distribution and concerns about increased traffic on Graylawn Avenue and Jess Avenue.

As indicated in the Draft EIR, the City's street standards as defined in the 2025 Mobility Report are not identified as CEQA thresholds for this EIR. This information was presented in the Draft EIR to provide a means of measuring the qualitative issues relative to the livability of local streets as related to increased traffic. The applicant has voluntarily agreed to implement a Traffic Calming Plan as part of the Revised Project to address increased traffic on Graylawn and Jess Avenues (see Appendix A). The strategies presented within the Traffic Calming Plan are intended to be conceptual in nature and are not intended for immediate implementation without a community engagement process followed by detailed engineering design. The applicant shall coordinate with City Public Works staff on the preferred Traffic Calming approach and design (anticipated to be similar in nature to Concept 3 as shown in the conceptual Traffic Calming Plan of Appendix A), and the preferred Traffic Calming Plan shall be shown on the plan set for SPAR review. As part of the SPAR process, the Planning Commission will review and consider approval of a final Traffic Calming Plan, specifically determining which traffic calming measures will ultimately be implemented. The Public Improvement Plan set for the Revised Project shall include the final Traffic Calming Plan. Recirculation of a new Draft EIR to re-address this topic is not warranted.

Response to Comment F-8

Pursuant to the California Supreme Court holding in *California Building Industry Association v. Bay Area Air Quality Management District* (2015, 62 Cal. 4th 369) and with the October 2018 revisions to Appendix G, the effects of the environment on the Project (i.e., the effects of sea level rise on the project) are not considered significant impacts under CEQA. However, the Draft EIR included an analysis of sea level rise for informational purposes.

As indicated in the Draft EIR, the Petaluma River will be affected by sea level rise. Figures presented in the Draft EIR show the magnitude of high-level sea rise scenarios coupled with an extreme high tide, a 100-year storm event and waves, resulting in elevated River levels and out-of-bank flooding. These figures, which are derived from BCD's *Adapting to Rising Tide*, include the effects related to winter storms, increasing river flows and King tides. Although the Project site is located adjacent to the Petaluma River, the location's elevation is high enough in the watershed that it will not be significantly impacted by flooding events related to sea level rise. The Project's contribution to cumulative flooding conditions (including sea level rise) is fully documented in the Draft EIR (See also Master Response to Comments Regarding Flooding).

Taryn Obaid
Property Owner
7 Graylawn Ave.
Petaluma, CA 94952

April 24, 2018

Tiffany Robbe
Senior Planner
City of Petaluma
11 English Street
Petaluma, CA 94952

RE:

1. Sid Commons Apartment Project
2. Amendment to the Oak Creek Planned Unit Development
3. Related Zoning Map Amendment

As a resident of neighborhood of proposed Sid Commons project, I object to a major element of the "Draft Environmental Impact Report" (DEIR) -- in particular, **the issue of Graylawn being the project access to the proposed development**. I wish to communicate to Planning Commission the following aspect of project is unacceptable and **would cause substantial, significant negative impact to the neighborhood**.

I protest commencing the Sid Commons project **without Shasta-Rainier extension** on the bases of:

1. Transportation and traffic impact on Graylawn Ave. residents and children at play
2. Cultural impact on Graylawn Ave. residents and children at play
3. Air quality impact on Graylawn Ave. residents and children at play
4. Greenhouse gas emissions impact on Graylawn Ave. residents and children at play
5. Noise impact on Graylawn Ave. residents and children at play

Graylawn Avenue is a street with special circumstances. It is a very short predominantly single-family dwelling residential neighborhood with extreme ratio/number of cul de sacs/side streets.

1. Total length of Graylawn Avenue from Payran Ave. to entrance to Sid Commons parcel is **0.1 mile**.
2. **This is approximately one cul de sac/side street per every two homes on Graylawn Ave.**
 - a. Along this 0.1-mile span, there is a concentration of cul de sacs and/or crossroads -- total of **five** (excluding the SID Commons and current apartment complex and end of Graylawn).
 - i. Contrast: Payran approximately one side street per every 8-10 homes from Washington to Petaluma Blvd. N.

1

Taryn Obaid letter re: opposition to Sid Commons

G-1

[Note: Graylawn's five includes the shared driveway for the three multi-unit buildings at parcels 44, 48, and 54 Graylawn Ave., which are not actually on Graylawn Ave but are tucked behind houses that are on Northwest end of Graylawn.]

- Presently, many children play outdoors in the cul de sac and on the short street, crossing back and forth between friends' homes. This is the culture of our neighborhood -- a special and healthy strong characteristic of ours, for which we protest negative impact that would result from developing Sid Commons project using Graylawn Ave. as access.

Currently, Graylawn Ave. is burdened with more traffic than it was designed for. In the past year, I have witnessed two unreported car crashes on Graylawn -- in addition to those that were reported to police. The number of cars pulling in and out of the cul de sacs and side streets due to impacts of high real estate (increased household size, numerous legal and non-legal rental units added to houses (eg, garage unit rental) is evident by the numerous two-car-garage homes that have five, seven, or more cars belonging to them. Current Payran traffic is too congested (and fast), causing too much air and noise pollution.

DEIR has troubling biases and/or analysis flaws pertaining to traffic flow impact of project. DEIR traffic impact analyses use 2007-2008 data, which is before Target Shopping Center and several multi-family complexes were completed -- and before the post-real estate crash housing crunch resulted in increase in household size (legal and illegal rental units; boomerang young adults; etc.).

G-2

DEIR shows unacceptable "cumulative + project" traffic LOS even if "proposed" Shasta extension is completed: "F" for Shasta-Petaluma Blvd. (Table 14-11)

Interestingly, Graylawn-Payran analysis of traffic show little impact -- even though DEIR Table 14-12 portrays unacceptable Shasta-Petaluma Blvd. traffic of 4,120 trips per day.

G-3

LOS Grade Changes for AM and PM Peak Hours

	Existing (Table 14-3)	Cumulative + Project (Table 14-11)
Shasta-Petaluma Blvd.	A/A	D/F
Graylawn-Payran Ave.	B/B	C/C

Currently, Graylawn has a traffic problem. The DEIR data and analysis is flawed and under-reports the traffic problem and danger we currently have (too many cars; too fast; long back ups at Graylawn-Payran, especially if there is a train!).

G-4

Further, I propose using the City's twenty year old (1999) "Street Design and Construction Standards and specifications" generic 2000 trips/day as guideline for Graylawn Ave., given it's short (.01 mile) length and extreme number of cul de sacs/side streets (5) is inappropriate and potentially dangerous to our playing children, pedestrians, and bicyclists.

G-5

Further, DEIR cites Developer-agency traffic analysis update conducted Mar-April 2018, which represents biased method and findings of the recent DEIR traffic impact survey (wires placed on road

G-6

MAR-Apr 2018 to measure number of cars traveling in and out of Graylawn Ave. at Payran), which was conducted over the 7 days of what was for some households "Spring Break." Results of that survey are skewed and under-representative of normal traffic flow because children were out of school and many families were out of town on vacation during Spring Break. DEIR states Graylawn Ave.traffic: "has 954 ADTs, and thus has a maximum remaining capacity of 1,046 ADTs"

Residents estimate bias resulting from omission of a minimum of four car trips per day per household with school-age children and young adults (college) -- the number of car trips to and from home for school drop-offs and pick-ups, many parent subsequent return trips home, plus child/youth/adult drop-offs and pick-ups to extracurricular/recreational activities (sports, gym workouts, shopping, etc.).

G-7

The Graylawn Ave. traffic survey needs to be fielded at a time period concurrent with normal neighborhood/community schedule. Also, analysis needs to account for nature of Graylawn Ave., as the street has special characteristics:

G-8

1. Approximately .01 mile in length (less than half the "quarter mile" cited in DEIR)
2. Five cul de sacs and side streets, which is approximately one cul de sac/side street per every two homes (contrast: Payran approximately one per 8-10 homes from Washington to Petaluma Blvd. N.)

In conclusion, because there is no guarantee Shasta extension will happen, if project is decided to move forward, I recommend commencing the Sid Commons project:

1. **Should not be constructed until AFTER the Shasta Avenue Extension to Rainier Connector is completed.**
 - a. PUC contends "new at grade [railroad] crossing to be avoided" (p. 14-25)
2. **Graylawn should not be only access or thoroughfare.**
3. **Traffic survey is re-conducted at a time period concurrent with normal neighborhood/community schedule.**

G-9

Thank you,

Taryn Obaid

Response to Letter G Taryn Obaid, 4-24-18

Response to Comment G-1

The commenter's objections to the Project are noted and will be provided to City decision-makers for their consideration. This comment does not raise concerns or objections relative to the Draft EIR.

Response to Comment G-2

Please see Master Response to Comments on Traffic specific to the accuracy and applicability of traffic counts as used in the Draft EIR to establish baseline (or existing) conditions, and the accuracy of the trip generation rates.

Response to Comment G-3

The cumulative traffic scenario presented in the Draft EIR represents the projected future transportation conditions in the study area based on General Plan build-out. This scenario represents total development pursuant to the City's General Plan, presumed to occur as early as year 2025. The Cumulative plus Project scenario represents all cumulative traffic growth in the area, plus project-generated traffic. Under this scenario, the original Project included the Shasta Avenue Extension across the SMART rail tracks and ending at the Shasta/Petaluma Boulevard North intersection. As shown on Table 14-12 of the Draft EIR, traffic attributable to the original Project would have added 50 AM peak hour trips and 55 PM peak hour trips to this intersection, representing approximately 3.5 percent of all traffic at this intersection, and would have contributed to a significant cumulative traffic impact (Level of Service F) at this intersection.

As indicated in Table 14-11 of the Draft EIR, the original Project's contribution of traffic to the Graylawn/Payran intersection would have increased delay at this intersection by 6 or 7 seconds in the peak hours, and would have increased intersection operations to Level of Service C during the PM peak hour. This intersection would have continued to operate at acceptable levels of service with the addition of traffic generated by the original Project.

Under the Revised Project, the Shasta Avenue Extension would not be extended and no at-grade crossing over the railroad would occur. Thus, the Revised Project would not contribute direct trips to the Shasta/Petaluma Boulevard North intersection. Nonetheless, the Project is subject to all applicable traffic impact fees, which will go towards planned future roadway improvements identified through the General Plan. Therefore, the Revised Project will similarly contribute its fair share towards future improvements citywide through the payment of traffic impact fees.

Response to Comment G-4

Please see Master Response to Comments on Traffic specific to the accuracy and applicability of traffic counts as used in the Draft EIR to establish baseline (or existing) conditions, and the accuracy of the trip generation rates. As indicated in these Master Responses, the traffic data used in the Draft EIR analysis was not flawed, and the updates to this data do not indicate a significant change in findings or conclusions presented therein. The traffic analysis relied on the City of Petaluma traffic model, and used objective and quantitative analysis of traffic levels relative to established City of Petaluma level of service thresholds.

Response to Comment G-5

The City of Petaluma Department of Engineering's Street Design and Construction Standards & Specifications, including the *Street Standards Design and Application Guidelines of May 1999* (which are referenced in the City's 2025 Mobility Report) do indicate that local residential roadways are intended

to carry up to a maximum average daily traffic (ADT) of 2,000 trips, serving up to 200 dwellings. However, as stated in the Draft EIR, the City street standards are not CEQA thresholds and exceedance of standards does not equate to an environmental impact. This information was presented in the Draft EIR to provide a measurement of the relative qualitative livability of local streets as related to increased traffic. Furthermore, the applicant has voluntarily agreed to implement a Traffic Calming Plan as part of the Revised Project to address increased traffic on Graylawn and Jess Avenues (see Appendix A). The strategies presented within the Traffic Calming Plan are intended to be conceptual in nature and are not intended for immediate implementation without a community engagement process followed by detailed engineering design. As part of the SPAR process, the Planning Commission will review and consider approval of a final Traffic Calming Plan, specifically determining which traffic calming measures will ultimately be implemented to enhance pedestrian connectivity, reduce travel speeds and increase safety. The Public Improvement plan set for the Revised Project shall include the final Traffic Calming Plan.

Response to Comment G-6

The project applicants did commission their own private count of the turning movements of vehicles, pedestrians and bicycles in March of 2018 (see Letter E2). However, these counts were not used in preparation of the Draft EIR, nor were they cited in the Draft EIR. The Draft EIR does cite the Traffic Impact Study prepared for the original Project by Fehr & Peers in 2008, including updates through 2017. This Study and its updates are presented in Appendix 14A and 14B of the Draft EIR. The Draft EIR also cites several supplemental memorandums and studies also included in Appendix 14 to the Draft EIR. These studies and memorandums were prepared at the direction of and under the supervision of City staff, and not by or for the applicant. The methodologies and findings are objective and unbiased, and provide quantitative analysis of traffic levels relative to established City of Petaluma level of service thresholds. Please also see Master Response to Comments on Traffic specific to the accuracy and applicability of traffic counts as used in the Draft EIR to establish baseline (or existing) conditions.

Response to Comment G-7

Please see Master Response to Comments on Traffic specific to the accuracy of trip generation rates.

Response to Comment G-8

Please see Master Response to Comments on Traffic specific to the accuracy and applicability of traffic counts as used in the Draft EIR to establish baseline (or existing) conditions, and the accuracy of the trip generation rates. According to measurements taken from aerial imagery, Graylawn Avenue is approximately 1,240 feet (0.235 miles, or approximately one-quarter mile) in length from the intersection of Payran to the terminus of Graylawn Avenue at the landscaped turn-around, as indicated in the Draft EIR.

Response to Comment G-9

Please see Master Response to Comment on the Shasta Avenue Extension. The Shasta Avenue Extension across the SMART rail tracks is no longer proposed by the applicant. The commenter's recommendations regarding conditions under which the project may move forward are noted and will be provided to City decision-makers for their consideration.

Robbe, Tiffany

From: thebikehut@comcast.net
Sent: Tuesday, April 24, 2018 9:14 AM
To: Robbe, Tiffany
Subject: Sid Commons Deir

Hi Ms. Robbe,

The most recent traffic study was conducted beginning Saturday, March 24, 2018 at 5:00 p.m. through Sunday, April 1, 2018 at 1:00 p.m. The study was conducted during Holy Week, Easter Sunday and Spring Break. As a resident at the corner of W. Payran Ave. and Graylawn Ave., I can attest that the traffic was minimal and was not an accurate measure of the normal volume of traffic.

H-1

West Payran Ave. has become a "thoroughfare" for Petaluma. Graylawn Ave. has become a dangerous street due to the speeding, not obeying the stop sign and it will be a disaster to the neighborhood with the addition of this size project with only one way in and out. Obviously, with the recent fires, this is of great concern.

H-2

Please consider this at the meeting tonight.

Thank you,

Donna Smith

Response to Letter H Donna Smith, 4-24-18

Response to Comment H-1

Please see Master Response to Comments on Traffic specific to the accuracy and applicability of traffic counts as used in the Draft EIR to establish baseline (or existing) conditions.

Response to Comment H-2

The Petaluma General Plan Street Classifications Diagram does show Payran Street as a designated arterial (or thoroughfare) street.

As noted in the Draft EIR (page 14-67), without the Shasta Avenue Extension across the rail tracks (i.e., such as now proposed under the Revised Project) there would be only one primary point of vehicle access from Graylawn Avenue, with an emergency EVA access at Bernice Court. In 2014, the Petaluma City Engineer and Fire Marshal reviewed the proposed Bernice Court EVA route and found that, even with Graylawn as the only primary access route, the Bernice Court EVA would provide acceptable emergency vehicle access to serve the Project, but also indicated that two points of public roadway connections would be preferable. The current Fire Marshal has reviewed the Revised Project's Bernice Court EVA and has accepted the prior 2014 determination that the Bernice Court EVA would provide emergency vehicle access to serve the Project, but also indicated that two points of public roadway connections would be preferable consistent with current policies and industry best practices. The Bernice Court frontage can be designed to provide an acceptable fire apparatus roadway meeting all turning radius and turnaround requirements of the Petaluma Fire Code and meet emergency access requirements. No roadway hazards or hazards for emergency vehicles accessing the site would occur, and the impact would be less than significant. To ensure that the Bernice Court frontage provides continuous emergency access, Recommendation Haz-7 provides that the EVA be designed to maintain emergency access at all times through the proper siting of bollards, striping, signage and other indicators, and that the EVA design be reviewed and approved by the Fire Marshal.

As noted in the Draft EIR (page 10-9), "the Project site is located within the urban boundaries of the City of Petaluma, surrounded mainly by agricultural activities and does not abut wildlands. The most common types of fire are structural or urban fires. The threat of wildland fires associated with this Project is less than significant, and not discussed further in this EIR." Pursuant to the Petaluma Fire Code (Municipal Code Chapter 17.20 (adopting the California Building Standards Code, Title 24, Part 9, 2016 California Fire Code, and incorporating the 2015 Edition of the International Fire Code) all new buildings are required to include automatic fire sprinkler systems, use fire-resistant building materials, ensure an adequate water supply for fire flows, and other fire protection and prevention requirements.

Petition Against Sid Commons Project

I object to Sid Commons Apartment Project and related Draft Environmental Impact Report.

Proposed project, as that would cause substantial, significant negative impact to the neighborhood.

1. Transportation and traffic impact on Graylawn Ave. residents and children at play
2. Cultural impact on Graylawn Ave. residents and children at play
3. Air quality impact on Graylawn Ave. residents and children at play
4. Greenhouse gas emissions impact on Graylawn Ave. residents and children at play
5. Noise impact on Graylawn Ave. residents and children at play

I-1

Recent DEIR traffic impact survey is biased:

- Conducted over the 7 days of our local "Spring Break." Results will be skewed and under-representative of normal traffic flow because children were out of school and many families were out of town on vacation during Spring Break. (DEIR states Graylawn Ave. "has 954 ADTs, and thus has a maximum remaining capacity of 1,046 ADTs.")

I-2

Further, **Graylawn Avenue is a very short and concentrated predominantly single-family dwelling residential neighborhood.**

1. **Total length of Graylawn Avenue** from Payran Ave. to entrance to Sid Commons parcel is **0.1 mile**.
1. Along this 0.1-mile span, there is a concentration of cul de sacs and/or crossroads -- total of **five** -- excluding the SID Commons and current apartment complex and end of Graylawn Ave. This is approximately one cul de sac/side street per every two homes.
 - a. Note: this includes the shared driveway for the three-plus multi-unit buildings at parcels 44, 48, and 54 Graylawn Ave., which are not actually on Graylawn Ave but are tucked behind houses that are on Northwest end of Graylawn.
2. Presently, many children play outdoors in the cul de sac and on the short street, crossing back and forth between friends' homes. This is the culture of our neighborhood -- a special and healthy strong characteristic of ours, for which we protest negative impact that would result from developing Sid Commons project using Graylawn Ave. as access.

I-3

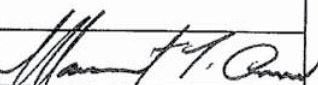
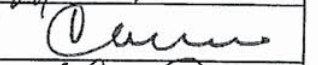

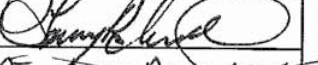
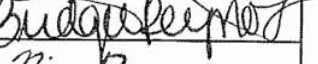
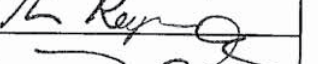
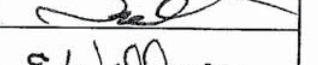
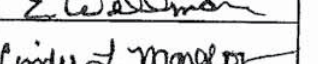
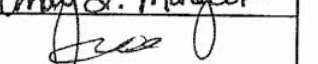
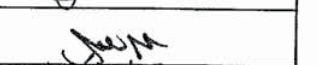

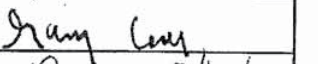
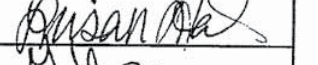
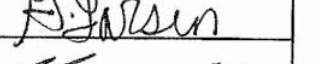
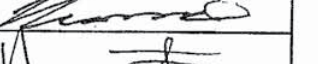



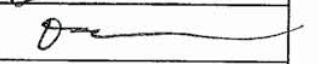
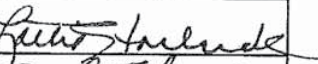



Currently, Graylawn Ave. is burdened with more traffic than it was designed for. In the past year, I have witnessed two unreported car crashes on Graylawn -- in addition to those that were reported to police. The number of cars pulling in and out of the cul de sacs and side streets due to impacts of high real estate (increased household size, numerous legal and non-legal rental units added to houses (eg, garage unit rental) is evident by the numerous two-car-garage homes that have five, seven, or more cars belonging to them. Current Payran traffic is too congested (and fast), causing too much air and noise pollution.

I-4

I recommend either either no project or move project with access off to-be-built Rainier Connector.

I-5

Petition Against Sid Commons Project

<u>Name</u>	<u>Did you have Reduced Car Trips During Traffic Survey?</u>	<u>Address</u>	<u>Signature</u>
MANASMIT GREEN	Yes	4 GRAYLAWN AVE	
Carol Latvala	No	4 Betty Ct	
JOHN OLIVER	No	4 BETTY COURT	
Tommy Buckmaster	YES	11 BETTY CT	
Bridget Reynolds	Yes	15 Betty Ct	
Nicholas Reynolds	Yes	15 Betty Ct	
Taryn Obercl	yes	7 Gray Lawn Ave	
Elizabeth Wellman	yes	20 Betty Court	
Cindy L. Mangleon	yes	20 Betty court	
Fawzie Osman	yes	16 BETTY CT	
Marsal Osman	Yes	16 Betty Ct	
M. ZAVI OSMAN	Yes	16 Betty Ct	
Gary Cacer	yes	12 Betty Ct	
Susan Maha	NO	8 Betty Ct	
Gia Larsen	YES	20 Graylawn Ave	
Mike Larsen	Yes	20 Graylawn Ave	
Harold MATZEU	No	7 Bernice Ct	
Ann Gregory	No	7 Bernice Dr	
Patrick Boyd	yes	15 Bernice Ct	
Danielle Greene	yes	19 Bernice Ct	
Pave Wacker	no	19 Bernice Ct	
Lottie Starbuck	Yes	26 Bernice Ct	
David Starbuck	Yes	26 Bernice Ct	

Petition Against Sid Commons Project

Name	Did you have Reduced Car Trips During Traffic Survey?	Address	Signature
Alex Gray	YES	16 Bernice	<i>[Signature]</i>
Mary Bourke	Yes	16 Bernice	Mary Bourke
Will Starbuck	Yes	26 Bernice	William T. Starbuck
Mary Cassidy	Yes, teacher	32 Graylawn	<i>[Signature]</i>
Samer Rabadi	No	32 Graylawn	<i>[Signature]</i>
Emma Dewald	No	40 Graylawn	Emma Dewald
William Lee	No	40 Graylawn	<i>[Signature]</i>
Chris Sarkate	Yes	97 Jess Ave	<i>[Signature]</i>
Cameron Cook	Yes	89 Jess Ave	Cameron Cook
Nicole Cook	Yes	89 Jess Ave	Nicole Cook
David Souza	No	97 Jess Ave	<i>[Signature]</i>
Lena Guglielmino	Yes	97 Jess Ave	<i>[Signature]</i>
Roxanne Kowalski	NO	11 Graylawn Ave	Roxanne Kowalski
Debra Kowalski	NO	11 Graylawn Ave	<i>[Signature]</i>
Joe Kellogg	YES	8 Graylawn Ave	<i>[Signature]</i>
Ahmed + Obaid	No	7 Graylawn Ave	Ahmed Obaid
Hanne Buckmaster	yes	11 Betty Ct	<i>[Signature]</i>

Response to Letter I Petition Against Sid Common Project

This petition signed by 40 residents in the surrounding neighborhood raises the same comments and issues as addressed in Letter G from Taryn Obaid, dated 4-24-18. As such, the responses to these comments and concerns are the same as the responses to Comment Letter G.

Taryn Obaid
Property Owner
7 Graylawn Ave.
Petaluma, CA 94952

May 12, 2018

Petaluma City Council
City of Petaluma
11 English Street
Petaluma, CA 94952

RECEIVED
MAY 14 2018
PLANNING DIVISION

RE:

1. Amendment to the Oak Creek Planned Unit Development
2. Related Zoning Map Amendment
3. DEIR analysis

As a resident of neighborhood of proposed Sid Commons project, I object to the project's **use of Graylawn being the access road to the project.**

The original (1984?) PUD, "Oak Creek Planned Unit Development," **specifies any future development will not use Graylawn Avenue for access.**

To change this aspect of PUD would be unconscionable: to allow Graylawn Ave. as access to the project **would cause substantial, significant negative impact to the neighborhood:**

1. **Unsafe traffic**
2. **Negative quality of life impact**

UNSAFE TRAFFIC

Graylawn Avenue Has Special Circumstances

Graylawn Ave. is a very short predominantly single-family dwelling residential neighborhood, lined by **just 14 single family homes.**

Total length of Graylawn Avenue from Payran Ave. to entrance to Sid Commons parcel is **less than half of what is stated in DEIR (quarter mile) -- it is just 0.1 mile.**

Graylawn Ave. functions much like a cul de sac itself, providing gentle/tame/slow access to **five** cul de sacs/side streets. This is approximately **one cul de sac/side street per every two homes** on Graylawn Ave. (excluding the current "Oak Creek" apartment complex and end of Graylawn).

1. The entrance of **three** of these have either a pronounced storm run-off channel crossing or a substantial incline, which effectively serve as speed bumps, keeping the traffic in and out slow and safe.

Page 1

Taryn Obaid City Council letter re: Graylawn Ave Access to Sid Commons

J-1

J-2

Letter J (continued)

- a. Driving over channels/incline results in atypical driving behavior as relates to other traffic.
[Note: Graylawn's five cul de sacs includes the shared driveway for the three multi-unit buildings at parcels 44, 48, and 54 Graylawn Ave., which are not actually on Graylawn Ave but are tucked behind houses that are on Northwest end of Graylawn.]

Further, there exists a pronounced storm channel at entrance to Graylawn Ave. at point of Payran intersection. This channel requires vehicles turning onto Graylawn from Payran to slow rather than accelerate, which is unsafe in that it is atypical and counter to normal/smooth/safe traffic flow.

1. Typically, vehicles accelerate out of turns. This is what other traffic anticipates, especially on an arterial such as Payran.
2. Even now this feature is problematic. In addition to those that were reported to police, I have seen two accidents in past year at entrance to Graylawn that were unreported to police.

DEIR has troubling biases and/or analysis flaws pertaining to traffic flow impact of project. DEIR traffic impact analyses use 2007-2008 data, which is before Target Shopping Center and several multi-family complexes were completed -- and before the post-real estate crash housing crunch resulted in increase in household size (legal and illegal rental units; boomerang young adults; etc.).

J-3

DEIR shows unacceptable "cumulative + project" traffic LOS even if "proposed" Shasta extension is completed: "F" for Shasta-Petaluma Blvd. (Table 14-11)

Interestingly, Graylawn-Payran analysis of traffic show little impact -- even though DEIR Table 14-12 portrays unacceptable Shasta-Petaluma Blvd. traffic of 4,120 trips per day.

J-4

LOS Grade Changes for AM and PM Peak Hours

	<u>Existing</u> (Table 14-3)	<u>Cumulative + Project</u> (Table 14-11)
Shasta-Petaluma Blvd.	A/A	D/F
Graylawn-Payran Ave.	B/B	C/C

Currently, Graylawn has a traffic problem. The DEIR data and analysis is flawed and under-reports the traffic problem and danger we currently have (too many cars; too fast; long back ups at Graylawn-Payran, especially if there is a train!). There number of cars at the Oak Creek apartments clearly exceeds the planned allotment: the parking overflow onto Graylawn and Jess is currently problematic and results in trespassing onto residents' property (Note: school busses will not go into Oak Creek, resulting in children and parents crowding in front of homes and onto driveways and yards of homes on Jess.)

J-5

Using the City's twenty year old (1999) "Street Design and Construction Standards and specifications" generic 2000 trips/day as guideline for Graylawn Ave., given it's short (.01 mile) length and extreme number of cul de sacs/side streets (5), and four channels/incline is inappropriate and potentially dangerous to the bicyclists, pedestrians and playing children in our established neighborhood.

J-6

DEIR analysis is inadequate and obsolete, specifically its use of 1.6 vehicles per unit: the number should be more like 2.2, and, number of trips per vehicle per day should be eight for this semi-remote location. When

J-7

using these more realistic values, even a scaled down development of 49 units means too much traffic on our 0.1-mile residential street with five cul de sacs/side streets and four storm run-off channels crossing streets.

# Units	Total Additional Vehicles	Additional # Trips per Vehicle per Day
49	108	864
149	328	2,624
278	612	4,896

NEGATIVE QUALITY OF LIFE IMPACT

Bicyclists, Pedestrians, Children at Play

Because Graylawn Ave. is a very short dead-end road lined by just 14 single-family homes, it is very quiet and enjoys much activity in the form of bicyclists, pedestrians, children at play on skateboards, scooters, and on foot. Increased traffic and increased overflow parking from Sid Commons project would substantially negatively impact our quality of life.

Current traffic levels tolerate bicycling along Graylawn. Increasing traffic to Sid Commons levels would eliminate that option for adults and children. Given the cul de sac nature of Graylawn, even with bike lanes added, the additional traffic would prevent safe bicycling.

Many pedestrians cross back and forth along Graylawn. The cul de sac nature of Graylawn has led to an established culture of neighbor communication and interaction, including sharing meals, plant starts/gardening, retrieving each others mail/packages, lending a hand with household and automotive chores, and child care sharing. Increased traffic would make these behaviors unsafe and destroy our community culture.

Children play outdoors across the cul de sacs, side street intersections, and along Graylawn, crossing back and forth between friends' homes. This is the culture of our neighborhood -- a special and healthy strong characteristic of ours, for which we protest negative impact that would result from developing Sid Commons project using Graylawn Ave. as access.

*"I usually go [skateboard] on the street because there are too many bumps on the sidewalk."
- Graylawn neighborhood girl, age 8*

J-8

Á

REJA

J-FE

J-1F

In conclusion:

1. A new primary access such as future Rainier extension to Oak Creek and Sid Commons should be mandated to minimize negative impact to Graylawn neighborhood and Payran
2. Graylawn should not be access or thoroughfare to project.
3. Speed study is needed on Graylawn: significantly high number vehicles to/from Oak Creek current y speed dangerously fast, treating Graylawn As a thoroughfare.
4. Traffic and parking overflow analysis should be re-conducted for both Sid Commons and Oak Creek using relevant and up-to-date data to reflect the real-world impact we are experiencing today in the neighborhood and impact from new development.
 - a. Increased number of cars per units rather than the obsolete 1.6 cars per unit given increased household size due to housing crisis.
 - b. Increase "average vehicle trips" per day value to household size and semi-rural location

Thank you,
Taryn Obaid

Response to Letter J Taryn Obaid, 5-12-18

This letter addressed to the City Council contains many of the same comments as the letter to the Planning Commission (Letter G, above) and was written by the same commenter. As such, many of the responses to this comment letter are the same as those responses to Comment Letter G.

Response to Comment J-1

The commenter's objections to the Project are noted and will be provided to City decision-makers for their consideration of the merits of the project. This comment does not raise concerns or objections relative to the Draft EIR.

Response to Comment J-2

The Draft EIR describes Graylawn Avenue as, "a two-lane residential roadway that connects to Payran Street and terminates approximately a quarter mile to the north, on the west side of the Petaluma River. The roadway is used primarily by residents in the neighborhood north of Payran Street. Sidewalks exist on both sides of the roadway adjacent to existing development. There is no striping and no bicycle lanes on the roadway. The residential roadway does not have a posted speed limit; therefore, the prima facie speed limit is 25 MPH." This description is consistent with the circumstances of this street as described in Letter J.

Response to Comment J-3

Please see Master Response to Comments on Traffic specific to the accuracy and applicability of traffic counts.

Response to Comment J-4

This is the same comment as Comment G-3. Please see Response to Comment G-3, above.

Response to Comment J-5

Please see Master Response to Comments on Traffic, specifically about projected traffic levels on Graylawn and Jess Avenues and at affected intersections.

Response to Comment J-6

Please see Master Response to Comments on Traffic, specifically about the accuracy to traffic counts and about projected traffic levels on Graylawn and Jess Avenues.

Response to Comment J-7

Please see Master Response to Comments on Traffic specific to the accuracy and applicability of traffic counts as used in the Draft EIR to establish baseline (or existing) conditions, and the accuracy of the trip generation rates.

Response to Comment J-8

The commenter's objections to the Project based on negative impacts to the neighborhood's quality of life will be provided to City decision-makers for their consideration. In response to neighborhood concerns about the amount of additional traffic that would be added to Graylawn Avenue and Jess Avenue and in recognition that the Project would exceed the City of Petaluma Department of Engineering's Street Design and Construction Standards & Specifications for local residential roadways, the applicant has voluntarily agreed to implement a Traffic Calming Plan as part of the Revised Project (see Appendix A). The Traffic Calming Plan

outlines several traffic calming concepts that the City, Project Sponsor and neighborhood residents could pursue in a manner consistent with the City's goals for traffic calming in residential neighborhoods, as outlined in the City's 2025 General Plan. The strategies presented within the Traffic Calming Plan are intended to be conceptual in nature and are not intended for immediate implementation without a community engagement process followed by detailed engineering design. The applicant shall coordinate with City Public Works staff on the preferred Traffic Calming approach and design (anticipated to be similar in nature to Concept 3 as shown in the conceptual Traffic Calming Plan of Appendix A), and the preferred Traffic Calming Plan shall be shown on the plan set for SPAR review. As part of the SPAR process, the Planning Commission will review and consider approval of a final Traffic Calming Plan, specifically determining which traffic calming measures will ultimately be implemented. The Public Improvement Plan set for the Revised Project shall include the final Traffic Calming Plan. (See also Master Response to Comments regarding Increased Daily Traffic on Graylawn Avenue and Jess Avenue).

Response to Comment J-9

For the reasons provided in the Alternatives chapter of the Draft EIR (beginning at page 18-3), no access from the site to the Rainier Connector is likely to be feasible. The closest point where the future bridge alignment would come to the site is in the immediate vicinity of the SMART rail corridor at the northern-most portion of the Project site. At this point, the Rainier Connector's bridge structure would be at least 23 feet above grade. Any type of bridge ramp would need to connect to the Rainier Connector at an elevated portion of the bridge that would be in a curved alignment, making a right-angle intersection impossible. The financial and technical challenges associated with constructing an extension of Graylawn Avenue as a bridge that ramps up to an intersection on the Rainier Cross-Town Connector are substantial as to be considered remote and speculative, if not infeasible. The commenter's recommendations regarding conditions under which the project may move forward are noted and will be provided to City decision-makers for their consideration.

Response to Comment J-10

Please see Master Response to Comments on Increased Daily Traffic on Graylawn Avenue and Jess Avenue, which includes an analysis of traffic speeds on both of these roadways, and which provides further justification for implementation of the Traffic Calming Plan where traffic volumes are projected to exceed the City design standards for livable streets and where traffic speeds typically exceed 25 mph.

Response to Comment J-11

To serve the 205 new residential units pursuant to the Revised Project, parking would be provided through a combination of 379 designated parking garage spaces within the apartment buildings, and an additional 51 surface parking spaces located along the internal looped drive aisle, or 430 total parking spaces. This amount of parking reflects an average ratio of 2.1 parking spaces per dwelling unit, and approximately 1.2 parking space per bedroom. Like the original Project, this amount of parking exceeds the relevant parking requirement of Section 11.060 (Table 11: Dwellings-Multiple Household) of the City of Petaluma Implementing Zoning Ordinance (IZO), which requires an overall parking ratio of no less than 1.5 parking spaces per unit and a minimum of 1 covered or uncovered parking space for each bedroom.

Petaluma City Council
11 English Street
Petaluma, CA 94952

RE: Sid Commons Apartment Complex DEIR

May 15, 2018

Dear Council Members,

This letter is submitted in response to the DEIR for the proposed Sid Commons Apartment Complex, located at the end of Graylawn Ave. on lands along the upper Petaluma River. I am a resident in the adjacent neighborhood with a home at 36 Jess Ave., just downstream of the proposed project. In terms of qualifications for reviewing the DEIR, I have been employed by the County of Marin as a Senior Planner within the Public Works Flood Control District for 20 years. My work focuses on environmental compliance for flood control projects related to rivers and wetlands. I am also the environmental coordinator for the dredging the District does for flood control on Novato and Corte Madera Creek. I hold a MLA from UC Berkeley in Environmental Planning with a focus on riverine science and watershed restoration.

Site Constraints for Development- Floodplain and Seasonal Wetlands

In terms of location, this is not the place within the City of Petaluma to stake claim for dense urban infill. The property (Parcel #09), on which a large portion of the development is proposed, is covered with seasonal wetlands that are highly valuable and irreplaceable. A visitor to the site during the rainy season cannot walk out onto the property due to ankle deep water spreading and slowly soaking into the floodplain before running off into the river. This extensive floodplain area serves as a natural detention area that delays peak flows from reaching the river all at once, which is a primary cause of urban flooding during large winter storms. Modeling completed by West and Assoc. (Sid Commons Hydraulic Evaluation; Feb 2017) used in the DEIR, shows that the project would not cause flooding in the area of the proposed development but it would cause an increase in water surface elevation further downstream in downtown Petaluma (C St.). The increase downstream is due primarily to the loss of the wetlands and their ability to retain water, coupled with the increase in run-off from the large amount of impermeable surface created by the development. The increase in surface water elevation downstream is also caused in part by the proposed terracing along the river, which works to shunt water more quickly into a widened river channel. The DEIR states that the increase in surface water elevation is insignificant; however a major fault of this conclusion is the fact that the West study relies on 2010 FEMA map data which does not take into account any of the sediment that has built up over the past decade in the river. When sediment fills the channel, it decreases the channel's capacity, causing higher water surface elevations during peak storm events. Higher surface water elevations combined with blocked culverts and drainages by sedimentation can cause the river to back up and flood into our streets and sewers downtown. During the Planning Commission hearing City Hydrologist Curtis Bates was questioned about the West study not taking into account the current sediment conditions. He admitted that the study is using old (2010) FEMA survey data and noted that a study of current sediment conditions based on actual bathymetry is in the process of being developed, but won't be available for some time. **Given that the study failed to include current river conditions, the DEIR is wrong to conclude that there are no significant impacts of flooding from the development. The DEIR is found to be incomplete on the topic of hydrology and impacts from flooding could easily be much more significant than stated. Furthermore, as a resident, paying flood insurance to live in a house on Jess Ave. that has flooded four times, I know firsthand how hard the town has fought for flood control and how expensive it is to maintain, especially given the high cost of dredging. I believe that the City Council should be extremely wary of approving a project that is already shown to increase surface water elevations in downtown Petaluma, even without taking the current sedimentation into account.**

K-1

K-2

K-3

Site Constraints for Development- Prized Riparian Habitat and Impacts to River and Water Quality

In the Petaluma River Access and Enhancement Plan (pg. 62) this segment of the river corridor that runs through the proposed project is recognized as "the most environmentally sensitive reach of the river... the largest stands of native riparian trees occur in this segment and this riparian grove is recognized as a unique resource to be protected and enhanced." Heritage oak trees line the channel and the abundant wildlife depends on an intact river corridor for its existence. In spite of this goal to protect this stretch of river, various maps throughout the DEIR show that the proposed

K-4

Letter K (continued)

footprint for development encroaches into the river setback areas that are established by the City of Petaluma General Plan, the Petaluma River Access and Enhancement Plan and the FEMA Floodplain maps. Buildings are shown within the FEMA 100 year floodplain and extensive riparian vegetation is proposed to be removed to accommodate structures and construction, including several heritage oaks. Given the density of development, there is little opportunity to move buildings away from the river or prevent development on the wetlands, so the project relies on extensive engineering to move stormwater through subterranean culverts and outfall structures and to trap run-off with bio-retention swales and ponds to try to slow the run-off before it hits the river. Experience has shown that these man-made bio-engineered structures and underground pipes may function when first constructed, however they quickly fill with weeds and soil and need constant maintenance to function as designed. Municipalities around the Bay Area are spending millions of dollars trying to restore or create the type of seasonal wetlands that are present on this property in order to slow, spread and sink flood flows and trap pollutants from run-off.

K-5

The Petaluma River is already listed as impaired by the State Water Quality Control Board for sedimentation and various pollutants. A parking lot for 400 cars will create run-off loaded with automobile oils, asbestos and copper from brake pads, and human litter and the run-off from the commercial landscaping will carry fertilizers and pesticides into the river. The proposed density of development would seriously constrain the ability of the site to significantly mitigate impacts from pollution and peak flow run-off. Many of the mitigations for stormwater and pollutants are proposed to be worked out later during the permitting process with the Regional Water Quality Control Board, however this is an issue to be dealt with now by the City Council, since the density of development gets decided during the CEQA process by the City, not in the final permitting phase by another agency.

K-6

Floodplain Terracing

The proposed project includes terracing of the right river bank for flood control purposes. The City of Petaluma has been implementing terracing under grant programs in the upstream reaches of the river and is enthusiastic about having the developer include terracing as part of the development. Modeling completed by West and Associates (Sid Commons Hydraulic Evaluation memo; Feb 2017) shows that terracing at the project site would have a positive effect on flooding in the immediate proposed project area and a less, but positive effect, on flooding upstream of Corona Road. However, it also shows the terracing contributes to the increase in surface water elevations downstream in Downtown Petaluma (see discussion above- Flood Control). The terracing has other down sides. It would require removal of several heritage oaks, grading and compaction of the riparian corridor and river bank and elimination of deep pools in the channel that are used by steelhead trout. Studies presented in the DEIR show that terracing is most effective in combination with detention. Currently parcel #09 of the property provides excellent detention as a floodplain so moving the development off of Parcel #09 to higher ground (parcel #06) would preserve detention qualities of the floodplain while making the terracing along the river more of an option than an imperative.

K-7

Sea Level Rise and Cumulative Impact Analysis- CEQA requires the DEIR to look cumulatively at all of the potential issues identified to complete a comprehensive Cumulative Impacts Analysis for the project. In this DEIR, cumulative impacts include increased water surface elevation due to removal of wetlands as well as the terracing of the river bank and increased peak flow run-off into the river made worse by current sediment filling the channel. Cumulatively the analysis needs to look at what other developments are planned in the City and although the DEIR does this, they only analyze build-out scenarios up through 2025 which is only 7 years in the future although much more development is planned for the City beyond that. Lastly, the cumulative analysis needs to also consider the potential impacts to flooding due to Sea Level Rise. The DEIR looks at the impact of sea level rise on the proposed apartments themselves, but it does not look at future sea level rise scenarios cumulatively in conjunction with the issues related to river flows and flooding. In summary, the DEIR is considered incomplete and lacking a valid Cumulative Impact Analysis.

K-8

K-9

Public Access to the River and the Meeting the Goals of the River Enhancement Plan

The proposed trail within the development winds along the river is described as meeting the River Access and Enhancement Plan goals to provide the public access to the river. I think we need to be very clear however that this trail does not provide actual river access for boating nor does it connect to any other trails along the river or to any other destinations within the City. Anyone wishing to link to shopping areas or the existing river trail system on foot or bicycle will need to travel out of the development and onto busy city streets at Payran which does not have a bike lane. Therefore, while a trail along the river is a nice idea for the residents who live there, it should not be portrayed as

K-10

meeting the goals of the River Enhancement Plan nor should it be used as mitigation for any other external impacts from the project, such as increased traffic or carbon emissions.

Traffic Impacts, Overflow Parking and Lack of Pedestrian and Bicycle Connections

Given the likelihood that the crossing at Shasta Ave. will not be approved, the project proposes to send traffic into the Graylawn neighborhood at a level unacceptable for the size and rating of the existing streets. The 1984 PUD agreement for the adjacent Oak Creek Development explicitly states that any development on parcel (09) would not be allowed to exit via Graylawn Ave., thus protecting this neighborhood from becoming a thoroughfare for future development. The proposal is to reverse this protection and use Graylawn anyway, in spite of past agreements. Rated for a maximum of 2000 cars per day, Alternative 4 (149 units) would double existing traffic on Graylawn, taking it to capacity, while the proposed project at 279 units takes it to almost twice its capacity. A flaw of the DEIR is that the traffic study is ten years old and conditions have changed in the past decade due to high cost of housing in Petaluma. The existing traffic numbers would be much higher today due to increased size of households and kids moving back in with parents, etc.. Additionally, the traffic study is incomplete in its analysis of impacts to traffic on Payran Ave. Graylawn and all of the small Courts off of it, feed into Payran at a T intersection. Since there are no stop signs on Payran, it is challenging to make this turn in either direction now, and increased traffic would make this an even greater hazard. If a three-way stop was installed, there would be issues of cars backing up onto the railroad crossing on Payran and resistance from the traveling public who already struggle getting down Payran during busy times of the day.

K-11

Another issue is the lack of a DEIR analysis of over-flow parking from the development into the neighborhood on Graylawn and Jess Ave. Overflow parking is already an issue on these streets coming from the 75 unit Oak Creek apartments. The proposed 279 apartments will certainly make that situation much worse. Each apartment complex is allotted parking space for only 1.6 cars, which most would agree is inadequate for a typical household today. The need for additional cars is increased by the fact that the development is not located within walking distance of any shops or downtown, nor is it connected to any walking or biking paths. Most people who live there will get in their cars and drive to stores or restaurants. This is not the dense urban infill that Petaluma is looking to create! Rather the proposed development is stranded out on the edge of the floodplain, hemmed in by the SMART tracks and the river and disconnected from walking or biking paths. Bicyclists leaving the development are forced onto Payran Ave which has no bike path and is a highly dangerous street to be biking on. In terms of the DEIR, impacts related to traffic and transportation, pedestrians and bicyclists need to be seriously considered. If a project is selected that puts traffic onto Graylawn instead of a Shasta Extension, this would constitute a Significant Change in Project Description and the DEIR should be recirculated with the project described with Graylawn as the only access route into the development. This would allow residents throughout the City who would be impacted by traffic on Payran Ave. to be alerted to the proposal and give them the opportunity to comment on the DEIR.

K-12

K-15

K-16

In summary, this is not the type of dense, infill development that Petaluma should be encouraging. Removed from the core of the City and built on the seasonal wetlands and floodplain of the river, the proposed project creates numerous environmental impacts that have not been fully analyzed individually or cumulatively. The lack of connection to pedestrian or bicycle paths and the lack of walkability to shops, restaurants and downtown, increases dependency on cars and will lead to greater congestion on Graylawn and Payran Ave., roads already plagued with too much traffic. Over flow parking in the adjacent neighborhood will become a constant battle for the residents of this quiet family neighborhood. In spite of all of these issues, I believe that with the guidance of the City Council and the Planning Commission, a project much more limited in size and scope, with buildings strategically located on higher ground, much further away from the active floodplain, wetlands and river could be responsibly developed.

K-17

Sincerely,

Kallie Marie Kull; resident of 36 Jess Ave. Petaluma, CA 94952

cc: Tiffany Robbe; City of Petaluma Planning Department

Response to Letter K Kallie Kull, 5-15-18

This letter addressed to the City Council contains many of the same comments as the letter to the Planning Commission (Letter F, above) written by the same commenter. As such, many of the responses to this comment letter are the same as those responses to Comment Letter F.

Response to Comment K-1

Please see Response to Comment F-1, above.

Response to Comment K-2

As noted by West Consulting (see Draft EIR, Appendix 11), under the existing plus Project condition presented in the Draft EIR, the discharge and water surface elevation increases caused by the original Project's terraced grading appear to be due to changes in velocity, which result in slightly higher peak flows downstream. Another potential factor is the unavoidable result of lower water surface elevations on the site due to the terracing, which causes less water storage in the overbanks and therefore slightly higher peak flows downstream. Under the cumulative condition (which includes increased upstream stormwater detention and downstream river terracing) increased volume appears to be due to changes in flood flow velocity that result in slightly higher peak flows downstream. The increase in water surface elevation appears to be the result of less water storage in the overbanks upstream in the Willow Brook Creek area (outside the City of Petaluma and upstream of the site) and therefore slightly higher peak flows downstream.

Please also see Master Response to Comments on Flooding specific to hydrology-related pros and cons of river terracing, and Project-specific effects on flooding.

Response to Comment K-3

Please see Master Response to Comments on Flooding specific to the effects of river sedimentation. The Draft EIR does not rely on old (2010) FEMA data (see also Chapter 7: Revisions to the Draft EIR, indicating corrections to certain portions of the legends in Draft EIR figures). As indicated in the Draft EIR (page 11-3), "beginning in November 2008, the City submitted a preliminary Map Revision to FEMA, requesting that FEMA consider revisions to the then-effective 1989 Flood Insurance Rate Maps (FIRM) for the City, based on the city's high performance storm water monitoring model (XP-SWMM storm water model), including its more accurate topographical input data and reliance on almost 100 years of Petaluma rainfall data (including data from New Year's Eve 2005) and previous flood events. In October of 2011, FEMA accepted the XP-SWMM hydraulic model and technical data to be used to update the FIRM maps. In April of 2012, FEMA released their draft FIRM panels and Flood Insurance Study for review. After a public review process, the new FIRM maps became effective February 19, 2014."

Response to Comment K-4

Please see Chapter 3: Revised Project Description and Chapter 4: Analysis of the Revised Project. These chapters of this Response to Comments document indicate how the Revised Project's site plan has been modified such that no new development would encroach into the 100-year floodplain boundary or the River setbacks pursuant to the General Plan and River Plan, and the Revised Project's substantially greater preservation of oak trees and oak woodland habitat.

Response to Comment K-5

Please see Master Response to comments on Stormwater Quality. This Master Response describes how the Revised Project complies with site design measures for regulated projects through preparation of a Storm Water Control Plan (SWCP). The preliminary SWCP prepared for the Revised Project provide source control

measures, conserves natural areas of the site consistent with General Plan policies and River setback requirements, routes stormwater runoff to bioretention or other facilities sized and designed according to BASMAA criteria, and provides for ongoing maintenance of bioretention facilities.

Response to Comment K-6

Similar to other projects within the City, the Revised Project will be required to comply with the NPDES General Permit for the Discharge of Storm Water from Small MS4s, which prescribes methods for residential developments to control and treat stormwater runoff. The Small MS4 General Permit requires site design measures, source controls, stormwater treatment measures and/or other low impact development (LID) measures to reduce stormwater runoff and limit the transport of pollutants to receiving waters. The Small MS4 General Permit also requires implementation of source control measures for specific pollution-generating activities such as accidental spills or leaks, landscape/outdoor pesticide use, and for pools, ponds, or other water features.

The original Project (and now the Revised Project) includes a preliminary Storm Water Control Plan (SWCP) that demonstrates how these requirements will be met on the site. Final development plans will be required to include a Final SWCP with detailed calculations to demonstrate that the requirements of post-construction runoff treatment have been met in accordance with requirements of the City's Storm Water Management regulations (Municipal Code Chapter 15.80 – Stormwater Management and Pollution Control). The City's Public Works and Utilities Department and the Sonoma County Water Agency must approve the design of post-construction BMPs.

In furtherance of these regulatory requirements, mitigation measures recommended in the Draft EIR (Mitigation Measure Hydro-2A: SWCP Implementation, and Mitigation Measure Hydro-2B: SWCP Monitoring and Maintenance Agreement) provide further detailed requirements to reduce and/or avoid adversely affecting water quality.

Response to Comment K-7

The Alternatives chapter of the Draft EIR (Alternative #4: Reduced Project with and without Terraced Grading, beginning at page 18-46) presents a comparison of the relative pros and cons associated with River terrace grading versus up-stream flood flow detention. This hydrology and biology analysis of the Project as presented in the Draft EIR may be used by the City decision makers to weigh the relative merits of improved floodwater attenuation and flood flow conveyance against resulting impacts to biological resources. An option whereby terraced grading would not be implemented was concluded to be inconsistent with the policies of the General Plan and Petaluma River Access and Enhancement Plan, which call for improved and expanded river channel capacity and river vegetation management and enhancement. Prioritizing the protection of biological resources (and/or floodwater storage) over on-site improvements to flood flow conveyance would require an alternative citywide strategy for floodwater attenuation based solely on detention rather than upstream detention combined with increased River conveyance capacity.

Response to Comment K-8

The cumulative analysis presented in the Draft EIR relies on a combination of approaches to meet CEQA requirements. It includes a "pipeline" list of present and probable future projects for analysis of certain cumulative effects (most notably for cumulative traffic impacts). It also relies on the development assumptions of the City's General Plan buildout for most all other cumulative analysis topics. General Plan buildout meets the requirements of "a summary of projections in an adopted planning document", as required by CEQA. The current Petaluma General Plan (which was prepared in 2008 and was anticipated to address development through year 2025) includes substantially more capacity for growth and development than is likely to occur in the next 6 or 7 years.

Response to Comment K-9

Sea level rise is by definition a cumulative effect. According to the Union of Concerned Scientists, global warming is the primary cause of current sea level rise. The primary cause of global warming is human activity that releases carbon into the atmosphere, most significantly the burning of fossil fuels to drive cars, generate electricity and operate homes and businesses. These activities have increased atmospheric concentrations of heat-trapping gases and caused the planet to warm by 1.4 degrees Fahrenheit since 1880. Approximately one-third of the US population lives in coastal counties and is particularly vulnerable to rising seas and coastal storm surges. The risks to these coastal locations include shoreline erosion and degradation, amplified storm surges and permanent inundation.

As indicated in the Draft EIR, the Petaluma River will be affected by sea level rise. Figures presented in the Draft EIR show the magnitude of high-level sea rise scenarios coupled with an extreme high tide, a 100-year storm event and waves, resulting in elevated River levels and out-of-bank flooding. These figures, which are derived from BCD's *Adapting to Rising Tide*, include the effects related to winter storms, increasing river flows and King tides.

Pursuant to the California Supreme Court holding in *California Building Industry Association v. Bay Area Air Quality Management District* (2015, 62 Cal. 4th 369) and with the October 2018 revisions to Appendix G, the effects of the environment on the Project (i.e., the effects of sea level rise on the project) are not considered significant impacts under CEQA. However, the Draft EIR included this analysis for informational purposes. The Draft EIR is not incomplete or lacking in its cumulative analysis, particularly as to the issue of sea level rise.

Response to Comment K-10

The project (both the original Project and the Revised Project) includes a pedestrian/bicycle trail along its frontage to the Petaluma River, connecting to the existing trail terminus at the Oak Creek Apartments. These connected trails will total more than a third of a mile in length, but will not yet connect to other segments of the River trail. The goal of the River Plan is for a walkway and trail the entire length of the river; the Project meets the goal of the River Plan by building the River trail along the full length of the project site. The Draft EIR did not "credit" any reductions in trips, air quality emissions or greenhouse gas emissions to the original Project, nor have any such reductions been credited to the Revised Project for this trail. The original Project did not provide access from the river trail to the water, though such access could be conditioned by the decision makers and the revised Project does include access to river edge.

Response to Comment K-11

The traffic implications of the original Project (both with and without the Shasta Avenue Extension) were fully studied in the Draft EIR. The Draft EIR alternatives chapter also analyzed the traffic impacts associated with a full range of alternatives to the Project that did not rely on the Shasta Avenue Extension and that would add increased traffic to Graylawn Avenue. The original Project and each of these alternatives were analyzed against the City's established LOS thresholds for intersection operations. Neither the original Project nor any of the alternatives were found to result in significant LOS impacts at the Graylawn Avenue/Payran Street intersection or any other intersection along Payran Street. Accordingly, the Revised Project (which is proposed at 205 units, or a density lower than the original Project but greater than several of the alternatives, would generate traffic levels at intersections on Payran Street within the range of traffic levels previously analyzed, and would similarly not result in significant level of service impacts. Please see Master Responses to Comment on Traffic specific to trip generation rates, traffic distribution and concerns about increased traffic on Graylawn Avenue and Jess Avenue.

As indicated in the Draft EIR, the City's street standards as defined in the 2025 Mobility Report are not identified as CEQA thresholds for this EIR. This information was presented in the Draft EIR to provide a

quantitative measurement of the relative qualitative livability of local streets as related to increased traffic. Recirculation of a new Draft EIR to re-address this topic is not warranted.

Response to Comment K-12

As noted in the Draft EIR (page 14-85), the Court of Appeal has held that parking is not part of the permanent physical environment and that parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects. State CEQA Guidelines have removed parking from the Environmental Checklist (Appendix G of the State CEQA Guidelines) as an environmental factor to be considered under CEQA. As such, although parking conditions were evaluated in the Draft EIR as a non-CEQA topic for informational purposes, the Draft EIR analysis is not lacking, nor does this topic raise any concerns necessitating recirculation.

The analysis presented in the Draft EIR evaluated whether the parking demand of the original Project would be met by proposed parking supply. The original Project proposed 445 total off-street parking spaces. Compared to parking requirements of the City of Petaluma Zoning Ordinance (which were calculated to require 436 parking spaces) and parking demand as estimated using Parking Generation, 4th Edition (calculated to generate a demand for 342 parking spaces), the original Project would have met the automobile parking requirement. The Revised Project relies on a similar parking ratio as was used for the original Project, and would similarly meet the automobile parking requirement of the City.

Response to Comment K-13

The traffic implications of the original Project (both with and without the Shasta Avenue Extension) were fully studied in the Draft EIR. The Draft EIR alternatives chapter also analyzed the traffic impacts associated with a full range of alternatives to the Project that did not rely on the Shasta Avenue Extension and that would add increased traffic to Graylawn Avenue. Please see Master Responses to Comment on Traffic specific to trip generation rates, traffic distribution and concerns about increased traffic on Graylawn Avenue and Jess Avenue.

As noted in the Draft EIR (on page 14-81), under a scenario where no rail crossing at Shasta occurs, Project residents would have to walk beyond a typically desirable walking distance to retail or transit services via the existing rail crossing at Payran Street. The Project would increase pedestrian and/or bicycle usage at the existing Payran crossing, which had been improved to minimal safety and ADA standards, with sidewalks and crosswalk striping on both sides of the street. In September of 2019, this crossing was further upgraded by SMART as part of their Payran Street Rail Crossing project, and enhancements now include two 4- to 6-foot wide low fence barriers at each sidewalk approach, curb barriers, yellow rumble strips in the sidewalk, and yellow "Watch for Train" diamonds stenciled on the sidewalk. While pedestrians would still have to walk beyond a typically desirable walking distance to or from retail or transit services, and the Revised Project would increase pedestrian and/or bicycle usage at the existing Payran crossing, the improvement work envisioned by MM Transp-9C was completed by SMART in September 2019, and no further MM is necessary. This issue was fully addressed in the Draft EIR and no recirculation of the Draft EIR is required.

Robbe, Tiffany

From: thebikehut@comcast.net
Sent: Thursday, May 17, 2018 7:17 PM
To: Robbe, Tiffany
Cc: councilman albertson; teresa4petaluma@comcast.net; mayordavidglass@gmail.com; mthealy@sbcglobal.net; councilmemberkearney@me.com; davekingpcc@gmail.com; kathleencmilleroffice@gmail.com
Subject: Sid Commons DEIR
Attachments: West Payran and Graylawn 4.jpg; West Payran and Graylawn 3.jpg; West Payran and Graylawn 2.jpg; Corner West Payran and Graylawn.jpg; Payran and Graylawn.jpg

Hi Council Members and Tiffany,

Please consider this statement from regarding the project. Also, the pictures are worth a thousand words. These were taken from my home.

L-1

Roger Huffman

Traffic is one issue. What about a fire with only one exit? What about a flood? Remember 1982 and subsequent years. This proposal includes making changes to the weir and terracing. When the Army Corps of Engineers designed the "100-year flood" fix at great expense, the City was advised to not do anymore infill in areas that typically flood else negating any of the positive impacts of the flood work. January 2006, the water as almost to the top of the sheer walls along the river. What would happen if the water went over the top of those? Ask yourself what all those homes would endure. Not the new proposed project because they will sit higher. Look at this photo. This is the corner of Graylawn and West Payran.

L-2

L-3



From: "Phyllis" <pksharrow@comcast.net>
To: "Roger and Donna" <thebikehut@comcast.net>
Sent: Wednesday, May 16, 2018 9:51:09 PM
Subject: Graylawn and West Payran

I didn't put dates when I saved them because not sure of year.

Letter L (continued)



Response to Letter L Roger Huffman, 5-17-18

Response to Comment L-1

Please see Master Response to Comments on Traffic, specifically regarding general concerns about increased traffic levels.

Response to Comment L-2

As noted in the Draft EIR (page 10-15), without the Shasta Avenue extension, access to the Project site would be limited to Graylawn Avenue and the Bernice Court EVA. In 2014, the Petaluma City Engineer and Fire Marshal reviewed the proposed Bernice Court EVA route and found that, even with Graylawn as the only primary access route, the Bernice Court EVA would provide acceptable emergency vehicle access to serve the Project, but also indicated that two points of public roadway connections would be preferable. The current Fire Marshal has reviewed the proposed Bernice EVA and has accepted the prior 2014 determination that the Bernice Court EVA would provide acceptable emergency vehicle access to serve the Project, but also indicated that two points of public roadway connections would be preferable.³ To ensure that the Bernice Court frontage provides acceptable access, Recommendation Haz-7 provides that the EVA be designed to maintain emergency access at all times through the proper siting of bollards, striping, signage and other indicators, and that the EVA design be reviewed and approved by the Fire Marshal (also see Response H-2 above).

Response to Comment L-3

Please see Master Response to Comments on Flooding specific to the potential for the project to exacerbate flood conditions. The images provided along with this comment letter demonstrate the significance of flooding issues that have affected the City, and the City has initiated significant efforts to address its flooding problems. As indicated in the Master Response to Comments on Flooding, between 1997 and 2008, nearly \$40 million in improvements on the Petaluma River Flood Control Project were completed. FEMA released updated Flood Insurance Rate Maps (FIRMs) effective as of February 19, 2014, which reflect the reduced 100-year floodplain boundaries that resulted from these City flood control improvements. These FIRMs rely on the City's high performance stormwater monitoring model (XP-SWMM stormwater model) including its accurate topographical data and reliance on almost 100 years of Petaluma rainfall data and previous flood events. The Draft EIR (Figure 11-1) presented the boundaries of the 2014 100-year flood boundaries at the site. A larger-scale image of that same Draft EIR figure is shown on Figure 4-3, specifically indicating that A99 flood zone designations remain applicable to portions of the adjacent Payran/Jess/Graylawn neighborhood.

³ Personal communication between Tiffany Robbe (City Planner), City Engineer and Fire Marshal, 2019

Robbe, Tiffany

From: Steve Armstrong <stevearmstrongsf@gmail.com>
Sent: Sunday, May 20, 2018 1:51 PM
To: - City Clerk; mayordavidglass@gmail.com; mthealy@sbcglobal.net; councilman.albertson@gmail.com; teresa4petaluma@comcast.net; councilmemberkearney@me.com; davekingpcc@gmail.com; kathleencmilleroffice@gmail.com; Robbe, Tiffany
Cc: Michael Ramos
Subject: Graylawn Ave Apartment Project

Hello Mayor and City Council Members,

I learned just today through a Facebook post that the city council is poised to approve a 279 unit apartment complex at the end of Graylawn Avenue tomorrow night. We live on Payran Street just a block from Graylawn, so this will have a huge effect on our daily lives. First of all, why are we just now learning about this project? I have received zero notification about this project - I knew nothing about it. This project, which will add hundreds of new residents to my neighborhood, will add an influx of vehicle traffic onto Payran, which as you already know, is used by locals as a crosstown connector, so it gets busy - and people drive way too fast on this street that has a 25 mph speed limit. And I understand this development will be built on the Petaluma River floodplain. Wetlands will be paved over, increasing the flood risk in this already vulnerable neighborhood. A large apartment complex at the end of a quiet suburban dead-end street does not seem to me to be a very wise plan. I urge you in the strongest terms to reject this proposal. I understand there is a shortage of housing here, but there are other parcels in town - closer to major roads - that are more appropriate for such a large scale development.

M-1

M-2

M-3

Sincerely,
Steve Armstrong
Michael Ramos

Robbe, Tiffany

From: Linda Speel <lindaspeel@gmail.com>
Sent: Sunday, May 20, 2018 4:10 PM
To: - City Clerk; David Glass; Michael Healy; Chris Albertson; Teresa Barrett; councilmemberkearney@me.com; davekingpcc@gmail.com; Kathleen Miller; Robbe, Tiffany
Subject: Graylawn Apartments addition

Dear Mayor and City Council Members,

My husband and I live at 120 West Payran St., I understand the Graylawn Ave apartment project is coming up for approval by you tomorrow night. I just heard that the Shasta Ave exit to Petaluma Blvd. has now been changed to Graylawn Ave to W. Payran St., 1/2 block from our house.

We can barely get out of our driveway now due to traffic in both directions. We were not notified about this change. In 1982 our house flooded with 2 ft. of water from the back up. Building above us will bring more water down to the river and us. I understand the need for housing in Petaluma and the area has been planned to expand for a long time. But you must stick to the original plan and exit on to Shasta Ave. The SMART train could have another crossing made to accommodate a gate and help detour traffic rather than on to an already busy residential street.

Please add a Shasta Ave exit to the new apartments and help keep some traffic under control.

Thank you for your consideration.

Respectfully,
Linda and Richard Speel
707-765-0196

N-1

Robbe, Tiffany

From: Julia Vanderham <jules321@gmail.com>
Sent: Sunday, May 20, 2018 5:43 PM
To: - City Clerk; mayordavidglass@gmail.com; mthealy@sbcglobal.net; councilman.albertson@gmail.com; teresa4petaluma@comcast.net; councilmemberkearney@me.com; davekingpcc@gmail.com; kathleencmilleroffice@gmail.com; Robbe, Tiffany
Subject: Please don't build a huge apartment complex in Midtown!

Dear Petaluma officials:

As a proud resident of Midtown Petaluma, I beg you not to approve the large apartment complex being proposed on Graylawn Ave.

While I recognize that there isn't enough housing for all the people who want to live in our wonderful town, this is something that could make Petaluma a much less desirable place to call home. Payran is already congested each day during peak traffic times and even sometimes in the middle of the day, threatening the safe, comfortable, intimate feeling of this adorable neighborhood. Additionally, I understand that this project would require paving over wetlands which would be utterly unsound from an environmental and safety perspective - not just for the immediate surrounding area but for the further reaches of downtown as well.

O-1
O-2

Please please please don't let developers ruin my beautiful neighborhood! I love living here, love the small-town feeling we have and knowing so many of my neighbors by name, love being able to get home in a (relatively) reasonable amount of time when crossing town. I hate to think of giving that all up in the name of a big, unsafe apartment complex.

While I have sympathy for all the people who'd like to move here, I feel a greater loyalty to this tight-knit community of people who already do. **I'm sure you feel the same, and as such I implore you to make the right choice and prohibit this unpleasant development.**

Thank you for your time, and for ALL that you do to keep Petaluma growing in the right direction.

Warmly,
Julia Vanderham

Response to Letter M **Steve Armstrong, 5-20-18**

Response to Comment M-1

The City Council was not considering approval of the Project at the May 17 hearing, but rather convened that hearing to receive comments on the Draft EIR. Consideration of approval of any project at the site will only occur after all comments from the public have been considered and an EIR has been determined complete and certified.

Response to Comment M-2

Please see Chapter 4 of this document and the Master Responses to Comments on Flooding and Wetlands.

Response to Comment M-3

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Response to Letter N **Linda Speel, 5-20-18**

Response to Comment N-1

Please see Master Response to Comments on the Shasta Avenue Extension and its associated rail crossing, as well as the description of the Revised Project (Chapter 2) providing an explanation as to why the Shasta Avenue Extension is no longer being considered under the Revised Project.

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Response to Letter O **Julia Vanderham, 5-20-18**

Response to Comment O-1

Please see Master Response to Comments on Traffic, generally.

Response to Comment O-2

Please see Master Response to Comments on Wetlands and Riparian Habitat.

Comments regarding the merits of the Project and its impacts on traffic and wetlands are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Robbe, Tiffany

From: M Reis <reis.mma@gmail.com>
Sent: Sunday, May 20, 2018 8:38 PM
To: - City Clerk; mayordavidglass@gmail.com; mthealy@sbcglobal.net;
councilman.albertson@gmail.com; teresa4petaluma@comcast.net;
councilmemberkearney@me.com; davekingpcc@gmail.com;
kathleencmillerooffice@gmail.com; Robbe, Tiffany
Subject: Proposed mid-town development

Dear City Council Members,

I will attend Monday nights council meeting to voice a strong objection to the proposed 279 unit apartment building access from Graylawn Ave. This is crazy to dump approximately 400 more cars onto the already BUSY Payran St. that has no police traffic control. Payran Street has become an unbearable non-stop nightmare of speeders. I live near the radar speed sign that is largely ignored by drivers racing loud modified muffler vehicles, as well as traffic cutting through in a hurry to cross town, avoid the freeway backup, etc. The commute traffic cutting through is unsafe for the amount of walkers and bike riders on Payran and Madison Street, Please re-consider this project until safer street access can be found.

Thank you from a concerned homeowner,
Mary Alice Reis
26 Payran St.
Petaluma

Robbe, Tiffany

From: Rachel Kaplan <rachelkap@fullcup.info>
Sent: Sunday, May 20, 2018 9:34 PM
To: rachel kaplan
Cc: - City Clerk; mayordavidglass@gmail.com; mthealy@sbcglobal.net; councilman.albertson@gmail.com; teresa4petaluma@comcast.net; councilmemberkearney@me.com; davekingpcc@gmail.com; kathleencmillerooffice@gmail.com; Robbe, Tiffany
Subject: 279 apartment complex on Graylawn Avenue

Hello -

I was recently alerted to a planned development on Graylawn Avenue which will have major impact on on Payran Ave and increase risk of flooding in mid- and downtown Petaluma. Residents in the Payran area have not been notified of the project because the traffic was planned to exit via Shasta Ave.to Petaluma Blvd. Since that won't be approved by SMART, all that traffic (1.000+ cars a day) will now funnel down Graylawn and onto Payran. The development of 279 units, clubhouse and 400 parking spaces is directly on the extended floodplain of the river wetlands, which currently detains flood waters all winter long. The project will pave all these wetlands over, with studies showing a rise in water surface and increase in flood risk in mid and downtown Petaluma. The flood studies are based on old data and do not take into account the current sediment build-up in the river, which is a serious flood risk already. THIS SEEMS EXTREMELY UNWISE, AND SHOULD BE FURTHER EVALUATED AND COMPLETED VETTED BEFORE APPROVAL. Any housing project that paves over what is left of our wetlands should be sent to the scrap heap.

Q-1

I further understand that an appropriate EIR has not been distributed to residents on Payran for comments before approving the project. This needs to be done before a project of this magnitude, and potential detrimental impacts to our town, is approved.

Q-2

Thank you for your attention to this matter.

Sincerely,

Rachel Kaplan
Petaluma Resident

Robbe, Tiffany

From: William Lee <amazimu@gmail.com>
Sent: Sunday, May 20, 2018 10:01 PM
To: Robbe, Tiffany
Subject: Oak Creek Planned Unit Development

To Whom It May Concern

I am a Petaluma resident writing to urge the city to reject the SID Commons Apartment Project, or otherwise further reduce the size of the development.

I live on 40 Graylawn Avenue. As a resident of the area, I am concerned about how the project will impact not only the quality of life of current and future residents in the area, but also our safety.

The Draft Environmental Impact Report states that the planned project is a 278 unit apartment complex. Access to the project would be provided by Graylawn Ave. As you may already be aware, Graylawn Ave. is a narrow, residential street with no lane divisions. The street is strictly residential, with many families living here. Children play on the street regularly, and there is regular bicycle traffic.

The two streets connected to Graylawn Ave. are Jess Ave. and Payran Street. Jess is a short, narrow residential street similar to Graylawn. Therefore, the same safety and quality of life problems would affect residents living on Jess. Jess Ave. curves and also connects to Payran. In other words, all traffic - whether construction vehicles or vehicles of future residents - would have to travel on Payran St.

Payran is a two-lane street, with one lane for each direction of travel. Residential homes line both sides of the street. It is already overloaded with traffic. At any given morning or afternoon rush hour, there are significant back-ups at stop signs and traffic lights. Not only is Payran the only access for many of the residential streets along it, it also provides access between two busy streets: Washington and Petaluma Blvd.

I fully appreciate the fact that Petaluma is a growing city, and there must be responsible development of new housing. I also understand some of that development will be in my neighborhood. We all must share the responsibility in growing our city, so I want to emphasize this is not merely an exercise in NIMBYism.

However, developing such a large apartment complex in the end of a residential street with no other access is not responsible development. The problems I mentioned above would not only affect current residents of the area, they would affect future residents, including those living in the planned development. The Draft Environmental Impact Report states that there may be a future extension of Shasta Avenue. Yet, no such extension has been built and appears to not even have been approved. Approving SID Commons without the Shasta extension is putting the cart before the horse. It is premature.

SID Commons Apartment Project, in its current form, benefits only the economic interests of real estate developers. It does not benefit the people of Petaluma. I therefore respectfully urge to city to either reject the project, or at least reduce the size o the development.

- William Lee
Resident, 40 Graylawn Ave.
Petaluma, CA

R-1

R-2

Response to Letter P

Mary Alice Reis, 5-20-18

Response to Comment P-1

Please see Master Response to Comments on Traffic, generally. Comments regarding the merits of the Project and its impacts on traffic conditions are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Response to Letter Q

Rachel Kaplan, 5-20-18

Response to Comment Q-1

Please see Master Response to Comments on the Shasta Avenue Extension and its associated rail crossing (Chapter 4) as well as the description of the Revised Project (Chapter 2) providing an explanation as to why the Shasta Avenue Extension is no longer being considered under the Revised Project. Please also see Master Response to Comments on Wetlands and Riparian Habitat, and Master Response to Comments on Flooding specific to river sediment.

Response to Comment Q-2

On March 1, 2018, the City released the Draft Environmental Impact Report (DEIR) for the Project. The DEIR was released for a 45-day public review period that ended on April 16, 2018. A Notice of Completion/ Availability (NOC/NOA) of the DEIR and Public Hearing was published in the Argus Courier on March 1, 2018. Notices were also mailed on the same date to residents and property owners within 500 feet of the subject property and to interested parties who previously requested notification, and to all who commented on the original Notice of Preparation for this EIR. The NOC/NOA was also filed with the State Clearinghouse and the Sonoma County Clerk.

Copies of the DEIR have been made available at the Petaluma Library, the Community Center, City Hall, and digitally via the City's website. Additionally, hard copies and CDs of the documents have been made available for purchase by the public at the Planning Division.

Response to Letter R

William Lee, 5-20-18

Response to Comment R-1

Please see Master Response to Comments on Traffic, generally and specific to traffic on Graylawn and Jess Avenues.

Response to Comment R-2

Please see Master Response to Comments on the Shasta Avenue Extension and it associated rail crossing as well as the description of the Revised Project (Chapter 2), providing an explanation as to why the Shasta Avenue Extension is no longer being considered under the Revised Project. The Revised Project has been reduced in size from 278 units (original Project) to 205 units (Revised Project).

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Robbe, Tiffany

From: Dave Dimmitt <davedimmitt@hotmail.com>
Sent: Monday, May 21, 2018 9:01 AM
To: Robbe, Tiffany
Subject: New Apartment Complex Graylawn/Shasta

Importance: High

As a long time resident of the Graylawn / Payran area (37 Jess Ave.), I'm appalled that the City of Petaluma is willing to push through a huge Apartment Housing Complex without the proper infrastructure to support the traffic that will be flying down our streets in this neighborhood. We already have noisy cars with loud music speeding down our streets, and this project without the proper street infrastructure will only exacerbate this problem putting kids and citizens at further risk. Also, the City has long put off the dredging of the Petaluma River, and this complex will only add to an existing problem of flood control for our homes.

S-1

Please DO NOT ALLOW this complex to be constructed without doing your do diligence and having the Shasta Street entry to be developed and the dredging of the River completed!!!

S-2

Sincerely,

Dave Dimmitt

Document Received After Agenda Distribution: Agenda #5.A

Cooper, Claire

From: Shanna Fleming
Sent: Sunday, May 20, 2018 12:51 PM
To: - City Clerk; mayordavidglass@gmail.com; mthealy@sbcglobal.net; councilman.albertson@gmail.com
Subject: Oppose the Graylawn Avenue Apartment Project

I want to register my opposition to the 279 apartments at the end of Graylawn Avenue. This project will have a major impact on traffic on Payran Ave. and increase risk of flooding in mid and downtown Petaluma. The development of 279 units, clubhouse and 400 parking spaces is directly on the extended floodplain of the river wetlands, which currently detains flood waters all winter long. The project will pave all these wetlands over, with studies showing a rise in water surface and increase in flood risk in mid and downtown Petaluma. The flood studies are based on old data and do not take into account the current sediment build-up in the river, which is a serious flood risk already. Midtown residents haven't had a chance to comment because we have not been notified. I request that you recirculate the EIR and notify the Payran and neighboring residents for comments before approving the project. In addition, I believe that the continual movement to grow our town is rapidly ruining Petaluma's charm. I am a relative newcomer (15 years). But Petaluma is definitely not the sweet town I chose to live in when I bought my home here - primarily due to the increased growth, which brings more traffic, more crime and more homeless and drug-addicted people. I still love our town but we need to put our resources into providing solutions to these problems, including more help for the homeless and poor in our community. We need resolutions for the traffic problems we already have. Let's not add to the already-congested downtown, East Washington and 101 bottlenecks. Please do not green light this project. It will create many more problems than solutions.

T-1

T-2

Thank you for considering all opinions.

Sincerely,

Shanna Fleming

Petaluma, Ca 94952

Robbe, Tiffany

From: Carol Latvala <carol.latvala@gmail.com>
Sent: Monday, May 21, 2018 9:19 AM
To: Robbe, Tiffany
Subject: New construction at eh end of Graylawn

I am a Petaluma resident who lives on the corner of Graylawn and Betty Ct. I am very concerned about the impact of proposed new housing units at the end of Graylawn. Without some sort of connection to Shasta Dr., it would mean a big increase in traffic during and after construction. This neighborhood is ill prepared for so much more traffic. It would severely downgrade our Quality of life here in Midtown. Please reconsider and deny or delay such construction until alternate routes can be secured.

Thank You,
Carol Latvala
4 Betty Ct.
Petaluma, Ca. 94952

U-1

Response to Letter S

David Dimmitt, 5-20-18

Response to Comment S-1

Please see Master Responses to Comments regarding Traffic, generally as well as Master Response to Comments on Flooding specific to river sedimentation.

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Response to Letter T

Shanna Fleming, 5-20-18

Response to Comment T-1

Please see Master Responses to Comments regarding Traffic, generally as well as Master Response to Comments on Flooding, wetlands and riparian habitat and river sedimentation.

On March 1, 2018, the City released the Draft Environmental Impact Report (DEIR) for the Project. The DEIR was released for a 45-day public review period, which ended on April 16, 2018. A Notice of Completion/Availability (NOC/NOA) of the DEIR and Public Hearing was published in the Argus Courier on March 1, 2018. Notices were also mailed on the same date to residents and property owners within 500 feet of the subject property, to interested parties who previously requested notification, and to all who commented on the original Notice of Preparation for this EIR. The NOC/NOA was also filed with the State Clearinghouse and the Sonoma County Clerk. Copies of the DEIR have been made available at the Petaluma Library, the Community Center, City Hall, and digitally via the City's website. Additionally, hard copies and CDs of the documents have been made available for purchase by the public at the Planning Division.

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Response to Letter U

Carol Latvala, 5-21-18

Response to Comment U-1

Please see Master Responses to Comments regarding Traffic, generally and specific to traffic on Graylawn and Jess Avenues. Please also see Master Response to Comments on the Shasta Avenue Extension and its associated rail crossing as well as the description of the Revised Project (Chapter 2), providing an explanation as to why the Shasta Avenue Extension is no longer being considered under the Revised Project.

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Robbe, Tiffany

From: Don Forman <donf1@comcast.net>
Sent: Monday, May 21, 2018 9:32 AM
To: - City Clerk; mayordavidglass@gmail.com; mthealy@sbcglobal.net;
councilman.albertson@gmail.com; teresa4petaluma@comcast.net;
councilmemberkearney@me.com; davekingpcc@gmail.com;
kathleencmilleroffice@gmail.com; Robbe, Tiffany
Subject: Gray lawn project

We need housing but I don't think that many units here is a good idea.
Traffic all over town is horrible. Some how the traffic lights need adjusting to allow traffic to flow.

V-1

Don Forman
762 B Cherry Street
Petaluma

Sent from my iPad

Robbe, Tiffany

From: janice gordon <m-janice@att.net>
Sent: Monday, May 21, 2018 9:42 AM
To: - City Clerk; mayordavidglass@gmail.com; mthealy@sbcglobal.net; councilman.albertson@gmail.com; teresa4petaluma@comcast.net; councilmemberkearney@me.com; davekingpcc@gmail.com; kathleencmillerooffice@gmail.com; Robbe, Tiffany
Subject: Greylawn Apartments - What the heck?

Why were we as payran/midtown residents not given any info on this until now? To funnel more traffic down Payran is ridiculous!. I already cannot get out of my driveway. I can't imagine the new hell you are proposing. What do you intend to do with the traffic! You're bringing down my property values and endangering the residents of the neighborhood.

W-1

DO NOT LET THIS DEAL GO THRU!!!!

Janice Gordon
Craig Christensen
108 West Payran Street
Petaluma
707-338-3042

Robbe, Tiffany

From: William Rodgers <willeagle1969@gmail.com>
Sent: Monday, May 21, 2018 10:16 AM
To: - City Clerk; mayordavidglass@gmail.com; mthealy@sbcglobal.net;
councilman.albertson@gmail.com; teresa4petaluma@comcast.net;
councilmemberkearney@me.com; davekingpcc@gmail.com;
kathleencmillerooffice@gmail.com; Robbe, Tiffany
Subject: Graylawn Apartment Project

Honorable Mayor and Petaluma City Council members,

I am a new resident to Petaluma. I moved here two years ago, to be with my wife whom has lived in Petaluma for 10+ years. We both love Petaluma, and would not want to live anywhere else. It is a good community with much to offer. We are currently residents in the Graylawn Avenue area, and are very concerned with the proposed apartment project off Graylawn Avenue of which the draft EIR is up for approval by the City Council. I am for growth of Petaluma, but it has to be responsible growth, while taking into account the beauty of our city and the open space to preserve the beauty and environment of our beautiful city. Traffic is a huge issue as well, which is getting worse due to the fact we do not have any good arterial streets to the west side of Highway 101. As the city grows, traffic will increase no matter what we do, but it is how we mitigate it to flow better is what needs to be taken into account when allowing proposed projects to be built. Right now Payran is very congested as it is, especially during rush hour, where traffic is backed up passed the stop sign at the intersection of Payran, and Madison Street. I understand that we are desperately in need of more housing here in Petaluma, as well as the rest of Sonoma County, especially affordable housing, which is what we need most, my concern is this project for one does not provide for any affordable housing, and will just continue to push more working people, such as I and my wife out of this area, that we love so much. Second this project does not as far as I am aware have any traffic mitigation that will ease the increase of traffic onto Graylawn and Payran. There has to be some type of exit from the apartment complex onto Petaluma Blvd, via either Shasta Avenue and/or Cinnabar Avenue. Without this Graylawn and Payran will become a parking lot during rush hour, and will be even more dangerous for pedestrians and bicyclists travelling on Payran. This project for me to support it has to have a large percentage of affordable housing included with it, if not I am totally against more luxury apartment for the super rich. We need affordable housing here for the working people that keep our city going. I am tired of the super rich pushing out those that work hard and deserve an affordable place to live. This project also must preserve the open space along the river, and not disturb the beautiful views we have of the river area. If it does not I am totally against this project moving forward. So, in summary in order for me as well as I am sure the vast majority of the citizens of Petaluma to support this project moving forward, there has to be (1) a large percentage of affordable housing included. (2) Better traffic mitigation with 1-2 exits from the complex exiting to Petaluma Blvd, via Shasta Avenue and/or Cinnabar Avenue. And (3) Preserve the open space and the beautiful views by the Petaluma River. Without these I cannot support this project. We have to be responsible with how Petaluma grows, and be able to keep up with the growth as a city. Thank you for your time.

X-1

X-2

X-3

X-4

X-5

William Rodgers
118 Graylawn Ave

Response to Letter V Don Forman, 5-21-18

Response to Comment V-1

Please see Master Responses to Comments regarding Traffic, generally.

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Response to Letter W Janice Gordon, 5-21-18

Response to Comments W-1

Please see Master Responses to Comments on Traffic, generally.

On March 1, 2018, the City released the Draft Environmental Impact Report (DEIR) for the Project. The DEIR was released for a 45-day public review period, which ended on April 16, 2018. A Notice of Completion/Availability (NOC/NOA) of the DEIR and Public Hearing was published in the Argus Courier on March 1, 2018. Notices were also mailed on the same date to residents and property owners within 500 feet of the subject property, to interested parties who previously requested notification, and to all who commented on the original Notice of Preparation for this EIR. The NOC/NOA was also filed with the State Clearinghouse and the Sonoma County Clerk. Copies of the DEIR have been made available at the Petaluma Library, the Community Center, City Hall, and digitally via the City's website. Additionally, hard copies and CDs of the documents have been made available for purchase by the public at the Planning Division.

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Response to Letter X William Rogers, 5-21-18

Response to Comment X-1

Please see Master Responses to Comments regarding Traffic, generally.

Response to Comment X-2

The City's most recent affordable housing ordinance, which requires construction of affordable housing units on site unless the City Council specifically grants a method of alternative compliance, became effective on October 18, 2018, well after the Project application was filed and deemed complete. Projects with applications deemed complete prior to January 1, 2019 are not subject to the inclusionary provisions of the October 2018 ordinance, but are instead subject to the provisions of the previous affordable housing policy. That previous policy required either dedication of 15% of the units on-site as affordable or payment of an affordable housing in-lieu fee or an alternative method to meet the intent of the inclusionary requirement subject to approval by the City Council. The option of an alternative method enables the City and the project applicant to work together to establish a mutually agreed upon and mutually beneficial affordable housing

component for the Project, pursuant to consideration of the relative public benefits attributable to the Project. The applicant has recently indicated their intention to provide 10.2% of the total units of the Revised Project (or 21 units) as affordable (with half of those units affordable at the low-income level, and half of those units affordable at the median-income level).

Response to Comment X-3

Pursuant to Chapter 19.24 of the Petaluma Municipal Code, the City implements a Traffic Development Impact Fee program (Traffic Impact Fees) to provide funding necessary to achieve the City's goal of maintaining existing traffic service levels and to provide traffic facilities to mitigate traffic impacts of new development. Fees charged to new development are used to pay for design, engineering, right-of-way or land acquisition and construction and/or acquisition of facilities and other established costs. Traffic Impact Fees can be used to reimburse the City for facilities constructed by the City, to reimburse developers who have designed and constructed facilities, and to pay for and/or reimburse costs of program development and ongoing administration and maintenance of the Fee program. The project will be required to pay applicable Traffic Impact Fees for each residential unit prior to the date of final inspection and issuance of the certificate of occupancy for such residential development.

The Draft EIR does not identify any impacts to the City's roadway system that are attributable solely to new traffic generated by the original Project, so no additional mitigation measures are recommended.

Response to Comment X-4

Please see Master Response to Comments on the Shasta Avenue Extension and its associated rail crossing as well as the description of the Revised Project (Chapter 2), providing an explanation as to why the Shasta Avenue Extension is no longer being considered under the Revised Project. The reasons for not including a Shasta Avenue Extension would equally apply to a Cinnabar rail crossing.

Response to Comment X-5

The Petaluma General Plan includes a land use designation of River Plan Corridor, which covers lands identified as needed to implement the 1996 Petaluma River Access and Enhancement Plan (or River Plan). No new development is permitted within the River Corridor. Within the site, the River Corridor is comprised of three management zones: the Preservation Zone, the Restoration Zone and the Buffer Zone. Unlike the original Project (which had encroached into the River Corridor), the Revised Project's development plan is pulled back from the Petaluma River banks such that it no longer encroaches into the River Corridor Preservation Zone (see Chapter 2 of this FEIR, Description of the Revised Project).

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Robbe, Tiffany

From: Kim Wilson <djkywmw@me.com>
Sent: Monday, May 21, 2018 10:23 AM
To: Robbe, Tiffany
Subject: 279 apartments at end of Graylawn Ave.

Dear Council Member,

It has only recently come to my attention that a large construction project is about to take place yards from my home on Jess Ave, which connects with Graylawn at one end and Payran on the other end. I recognize that Petaluma is growing and needs more housing, however, the traffic and potential environmental impact on our midtown neighborhood is extremely concerning. It is also my understanding that the developer wanted to use Shasta Ave. for construction traffic and SMART declined permission. Using Graylawn, off Payran, is not an acceptable solution. This is a small street with limited parking availability. Moreover, the increased traffic on Payran, especially right by a SMART crossing, seems ill conceived. If this project has no better access, then the city and the developer need to go back to the drawing board. The impact on the neighborhood is long lasting and may well impact property values. Not only will we be inconvenienced during construction, which I suspect will take the better part of a year or more, the increased traffic to new residents will over crowd the neighborhood. This is a sweet and quiet neighborhood, which is why I purchased my home a year and half ago.

Y-1

The environmental impact is equally unconscionable. The construction noise, in addition to the freeway noise, will make being outside on a week day unavailable. As someone who works at home, sometimes with clients, this is a personal concern of mine. However, the larger, and more devastating environmental impact is how this might effect the current flood plan. I discovered during the purchase of my home this neighborhood used to flood but not anymore since the construction of the flood wall, which is at the back of my property. Insurance companies are even starting to charge less for flood insurance. As residents that would be personally affected by any impact on the flood plan, I feel the developer and the city should provide us their environmental impact report, specifically any impact on the flood plan, so that we can make our voices heard on the subject before this project goes any further.

Y-2

Y-3

I am surprised the city of Petaluma is so quick to give this developer permission on a project that would be such a hardship for one of the city's older neighborhooda. It almost feels that this project is being given a green light in the dark of night. Now that I am aware of what's going on I'll be staying on top of this situation. I will be attending the council meeting tonight and any other meetings about this project.

Kim Wilson
52 Jess Ave.

Robbe, Tiffany

From: NICOLE VICTOR <nicolevictor@comcast.net>
Sent: Monday, May 21, 2018 12:13 PM
To: - City Clerk; mayordavidglass@gmail.com; mthealy@sbcglobal.net;
councilman.albertson@gmail.com; teresa4petaluma@comcast.net;
councilmemberkearney@me.com; davekingpcc@gmail.com;
kathleencmilleroffice@gmail.com; Robbe, Tiffany
Subject: Sid Commons II Project DEIR

Dear Council Members:

I have lived on Payran Street (between Madison Street and the bridge/4 way stop at Jess Avenue) for 19 years and was just informed of the Sid Commons project last Thursday 5/17 through a NextDoor post. I nor any of my neighbors have been notified about this project and the proposal of Graylawn Street off of Payran Street as the primary access of this project. I urgently request that the City notify and recirculate the DEIR to the Payran neighborhood as this project will have a SIGNIFICANT effect on this neighborhood from a traffic and safety perspective as well as the impact on the flood control project.

Z-1

Traffic currently on Payran Street (especially in the mornings) is a nightmare (speeding cars and increased vehicle use). In just the last year the amount of time it takes me to be able to pull out of my driveway safely has increased substantially. Cars (especially trucks or SUV's) that are parked on the street block the view of oncoming traffic and contributes to unsafe visibility when exiting the driveway. The increase of traffic from this project at the current density proposed will degrade the traffic safety of Payran Street as well as the neighborhood environment. Currently from my house to the traffic light on E Washington it takes 2-3 light cycles to get through to E Washington Street. The original traffic study was performed in 2007 with updates in 2015 and 2018. With the addition of the North River Apartment project a cumulative traffic study should be performed on how both Sid Commons and North River will effect Payran Street. Payran Street has become the 'short cut' for many drivers to cross from Petaluma Blvd to E Washington due to Lakeville traffic constraints. A new traffic study of Graylawn Street, all of Payran Street, North Petaluma Blvd and E Washington incorporating the planned development of North River Apartments needs to be performed.

Z-2

Z-3

I am very concerned that the flood control project that was put in by Army Corps of Engineers will be negated by the development on seasonal wetlands. We need the detention of peak storm floods on the seasonal wetlands to prevent flooding. The January 2006 high tides and storm put the flood control project to the test and there was still flooding upstream. There are aerial photos of the amount of water that was held on those wetlands during that storm. Development on the wetlands will not help upstream or downstream (downtown Petaluma C Street area which will have an increase in water surface elevation). I know there has not been any dredging in many years and sediment has built up in the river – has this been built into flood modeling in the DEIR?

Z-4

Z-5

I am supportive of new housing for Petaluma, but a high density infill project in a residential and flood prone area is not the current answer.

Sincerely,

Nicole Victor, 45 Payran Street- Property Owner

Robbe, Tiffany

From: Sue Hirsch <suehirsch01@gmail.com>
Sent: Monday, May 21, 2018 12:55 PM
To: - City Clerk; David Glass; mthealy@sbcglobal.net; councilman.albertson@gmail.com; Council Member Teresa Barrett; councilmemberkearney@me.com; davekingpcc@gmail.com; kathleencmillerooffice@gmail.com; Robbe, Tiffany
Subject: A concern about over- development near Payran

Developing over wetlands tends to be a tricky thing. I've heard that the studies backing the current development plans are somewhat out of date. Please do a new study, before finalizing plans for that development.

My family lives on the E. side of town, and we like to be able to take our dogs to Fit and Furry Kennel on Payran, when we go out of town, and that puts money into circulation, locally. I like to be able to cross Payran to go to the movie theater, and restaurants in the downtown area, (putting more money into our local economy) and don't want to be afraid of flooding that might have been caused by a development that lacked foresight and proper study.

I am not requesting that the development be prevented, only that the planning stages be given the benefit of a more complete and up to date study.

I know that I am not the only resident thinking of flooding and sustainable development for the sake of the safety of the near- by residents and others.

Thanks very much.

Sue Hirsch, CHC
www.joyfulwellness.org
2101 Rosemary Ct.
Petaluma, CA 94954

AA-1

Response to Letter Y Kim Wilson, 5-21-18

Response to Comment Y-1

Please see Master Responses to Comments on Traffic specific to Graylawn and Jess Avenues.

Response to Comment Y-2

Construction noise impacts are addressed in the Draft EIR (beginning at page 13-28). Mitigation measures presented in the Draft EIR represent all reasonable and feasible noise attenuation strategies that can be applied, and would serve to reduce the exposure of sensitive receptors (i.e., neighbors) to excessive noise during construction. The highest noise levels that would be experienced by adjacent sensitive receptors would occur for a duration of approximately 1 year during construction activity.

Response to Comment Y-3

Please see Master Response to Comments on Flooding.

Response to Comment Y-4

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Response to Letter Z Nicole Victor, 5-21-18

Response to Comment Z-1

On March 1, 2018, the City released the Draft Environmental Impact Report (DEIR) for the Project. The DEIR was released for a 45-day public review period, which ended on April 16, 2018. A Notice of Completion/Availability (NOC/NOA) of the DEIR and Public Hearing was published in the Argus Courier on March 1, 2018. Notices were also mailed on the same date to residents and property owners within 500 feet of the subject property, to interested parties who previously requested notification, and to all who commented on the original Notice of Preparation for this EIR. The NOC/NOA was also filed with the State Clearinghouse and the Sonoma County Clerk. Copies of the DEIR have been made available at the Petaluma Library, the Community Center, City Hall, and digitally via the City's website. Additionally, hard copies and CDs of the documents have been made available for purchase by the public at the Planning Division.

Response to Comment Z-2

Please see Master Responses to Comments on Traffic impacts, generally.

Response to Comment Z-3

The Draft EIR (beginning at page 14-35) includes an analysis of Project-generated traffic added to the "Pipeline", or near-term scenario. The Pipeline scenario includes added traffic from other development projects that the City is processing development application or has already approved, but which may or may not have yet been constructed. The locations of these "pipeline" development projects are shown on Figure 14-8 of the Draft EIR, and a list of projects provided by the City that would contribute traffic to study area

intersections under the Pipeline scenario is included in the Draft EIR Appendix. As shown on Figure 14-8 of the Draft EIR, the North River Apartments are included among other pipeline scenario developments.

Response to Comment Z-4

Please see Master Response to Comments on Flooding.

Response to Comment Z-5

Please see Master Response to Comments on Flooding specific to sedimentation of the River.

**Response to Letter AA
Sue Hirsch, 5-21-18**

Response to Comment AA-1

Please see Master Response to Comments on Flooding and Master Response to Comments on Wetlands and Riparian habitat.

Document Received After Agenda Distribution - Agenda Item

May 18, 2018

RECEIVED

MAY 21 2018

MAYOR

1 Payran St
Petaluma CA 94941

Hello City Manager and Council:

Currently I read about a proposed 200 apartment complex on Graylawn. This building is not feasible for this area. Has anyone conducted a traffic survey in the area? Payran Street is a highly travelled roadway. It is a shortcut to the west side of town instead of travelling all the way to East Washington and turning on Petaluma Blvd. The residents on Payran St. cannot get out of their driveways due to the high traffic volume.

AB-1

When apartments are rented in Petaluma there are times when it is one family per bedroom. That means father, mother, and children all in one bedroom of one apartment. And it becomes three families if there are three bedrooms. This is a fact.

AB-2

And another concern is water. The residents of Petaluma are constantly being told to conserve water due to the shortage. Do we have enough water for 400 more families? How about the new construction on Corona near the Post Office? Maybe we do have enough water in Petaluma!

AB-3

Since I am unable to be at the meeting, my vote is NO to this apartment complex. There have been no traffic studies completed, no EIRs and is the City of Petaluma willing to hire more police officers, fire fighters and necessary staff to handle not 200 families, but may be at the least 400 families?

AB-4

Regards,


Catherine Thompson

cc: Police Chief and Fire Chief

Response to Letter AB Catherine Thompson, 5-21-18

Response to Comment AB-1

The Draft EIR included a fully detailed traffic study, included as Chapter 14 of that document. Please also see Master Responses to Comments on Traffic impacts, generally.

Response to Comment AB-2

Please see Master Response to Comments on Traffic specific to the accuracy of trip generation rates as used in the traffic analysis and presented in the Draft EIR.

Response to Comment AB-3

The Draft EIR (beginning at page 15-1) provides a detailed description of water supply sources for the City of Petaluma. As noted in that section of the Draft EIR, the Petaluma Water Resources and Conservation Division of the Department of Public Works and Utilities is the water purveyor for the City of Petaluma. Petaluma's primary source of water is Russian River water purchased from the Sonoma County Water Agency (SCWA). The SCWA supplies water to Petaluma and seven other water contractors under the Restructured Agreement for Water Supply between SCWA and its contractors. Under this Restructured Agreement, Petaluma's monthly water supply entitlement from the SCWA is an average day maximum monthly (ADMM) supply of 21.8 million gallons per day (mgd) and an annual supply limit of 13,400 acre-feet per year (or 4,366 million gallons). The City of Petaluma reduces demand for potable water through use of recycled water. The City of Petaluma 2015 Urban Water Management Plan provides an analysis of the City's existing water supply resources and demands, including the City's contract with SCWA, the City's water recycling program (potable offset), water conservation programs and limited use of groundwater.

The Draft EIR (beginning at page 15-18) included an analysis of the availability of water supply to serve the project. Based on detailed information as contained in the 2015 Urban Water Management Plan, there are sufficient water supplies available to serve the project from existing entitlements and resources, and new or expanded entitlements are not needed. The project will add to the cumulative demand for overall water supplies and contribute to projected dry year water shortages. Therefore, the Project will be required, pursuant to existing regulations, to include water conservation strategies that will serve to reduce overall water demands to levels projected to be sustainable on a cumulative basis, and will be subject to those water shortage contingency plans that are now in place, and as may be implemented in the future.

Response to Comment AB-4

On March 1, 2018, the City released the Draft Environmental Impact Report (DEIR) for the Project. The DEIR was released for a 45-day public review period, which ended on April 16, 2018. A Notice of Completion/Availability (NOC/NOA) of the DEIR and Public Hearing was published in the Argus Courier on March 1, 2018. Notices were also mailed on the same date to residents and property owners within 500 feet of the subject property, to interested parties who previously requested notification, and to all who commented on the original Notice of Preparation for this EIR. The NOC/NOA was also filed with the State Clearinghouse and the Sonoma County Clerk. Copies of the DEIR have been made available at the Petaluma Library, the Community Center, City Hall, and digitally via the City's website. Additionally, hard copies and CDs of the documents have been made available for purchase by the public at the Planning Division.

Comments regarding the merits of the Project are included in this response to comments document and will be forwarded to the Planning Commission and City Council for their consideration.

Robbe, Tiffany

From: shushu ichi <skamages@gmail.com>
Sent: Monday, May 21, 2018 3:42 PM
To: - City Clerk; mayordavidglass@gmail.com; mthealy@sbcglobal.net; councilman.albertson@gmail.com; teresa4petaluma@comcast.net; councilmemberkearney@me.com; davekingpcc@gmail.com; kathleencmillerooffice@gmail.com; Robbe, Tiffany
Subject: Family on Jess Avenue

Hello,

Although it is important to provide more housing to this great city of Petaluma, I believe it is just as important to provide multiple access points of entry/exits to a newly planned development, especially one that is proposed to house 279 units. One access road, Graylawn Avenue, which is a residential street and shares an already congested Payran Street, is not sustainable for the future of a sound and respectful neighborhood.

AC-1

We moved into our home on Jess Ave over two years ago. We have been residents and home owners since our first child was born in 2007. We love it here. Yes, we get the occasional speeding car that races down our quiet street from time to time. This street is also occupied by several neighborhood children doing what they do best as they play in the street. This brings up multiple questions: Will this new development create more traffic along the side streets, too? Will there be a constant swarm of cars going to and from this new location without causing havoc to the residents that already reside in this neighborhood? Will there be spillover from cars that don't have a parking space who then end up parking along the side streets in front of our homes? This has been occurring over in the Southgate neighborhood off of Frates Road for quite some time now. That neighborhood is extremely frustrated from the spillover parking from the apartment complex across the road from their neighborhood.

AC-2

We are a respectful family. We have two well behaved, healthy, and energetic daughters. It would be a shame if we had to move just because of a developmental mistake of not allowing multiple points of entry to a huge, and I'm sure will be beautiful, housing complex for more families to call their home.

As we would like to attend the city council meeting tonight, we instead chose to attend our daughter's Spring Concert at Mary Collins Cherry Valley. She is in the fourth grade and plays the flute.

I hope this email will help in your decision in taking the correct path for the future of a lovely Petaluma community.

Thank you for taking your time to read this.

Sincerely,

A concerned resident, parent, homeowner- Sherry Kamages

Robbe, Tiffany

From: Samer Rabadi <samer.rabadi@gmail.com>
Sent: Monday, May 21, 2018 7:36 PM
To: mayordavidglass@gmail.com; mthealy@sbcglobal.net;
councilman.albertson@gmail.com; teresa4petaluma@comcast.net;
councilmemberkearney@me.com; davekingpcc@gmail.com;
kathleencmilleroffice@gmail.com; Robbe, Tiffany
Cc: - City Clerk; Mary Cassidy
Subject: Concerns About the Proposed Apartment Project at Graylawn Avenue

Dear Mayor and City Council Members,

Thank you for your service to the city of Petaluma. We are writing today in concern for the proposed apartment project at the end of Graylawn Avenue. As residents of Graylawn Avenue, we are in particular worried about two issues:

1. The impact of additional traffic on both Graylawn Avenue AND Payran Street, of which the latter already sees significant commuter and cut through traffic from people moving from North Petaluma Boulevard and East Washington Street and vice versa.

AD-1

The original plan for the apartment project included an additional entrance via an extension of Shasta Avenue, but our understanding that this is no longer under consideration.

We urge that you reconsider as an additional entrance at Shasta Avenue would go a long way to easing the pressure on Payran Street.

2. The project and its associated parking is directly on the nearby floodplain and will pave the area over, increasing the risk of flooding. Rivers have a life and change over time. Our understanding is that the last study of the river was some time ago and is likely out of date.

AD-2

Therefore, we encourage you to commission a study on the impact to the flood risk of the project. If the project DOES increase the flood risk to the area, then the developers must include substantial safeguards in their plans.

We understand that people should be allowed to build on their land, but not if it endangers the surrounding homes and the areas of mid and downtown Petaluma.

Thank you for your time and attention. We look forward to hearing from you about the ways we can protect Petaluma from the traffic and danger of floods that plague other parts of the North Bay.

Best regards,

Mary Cassidy & Samer Rabadi, Home Owners
32 Graylawn Avenue
Petaluma, CA 94952

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Document Received After Agenda Distribution - Agenda Item #5.1



May 21, 2018

Mayor and City Councilmembers
City of Petaluma
11 English St
Petaluma, CA 94952

Re: Sid Commons Apartment Project

Dear Mayor and Councilmembers:

North Bay Leadership Council represents the leading employers in Sonoma, Napa and Marin Counties. New housing is urgently needed to maintain the workforce and the companies located in the North Bay. The key type of housing needed is multi-family residential. In light of that need, we urge you to approve the DEIR for the Sid Commons Apartment project and request staff to prepare the Final EIR.

Employers are having increasing difficulty attracting and retaining employees due to the shortage of housing. Existing housing costs are skyrocketing because of the lack of supply. If we want Petaluma to have a vibrant economy, we need to build more housing. Petaluma also has a responsibility to help make up for the almost 6,000 units of housing lost in the devastating fires last fall – it will take all of the cities doing their part to help get our housing shortfall reduced.

This project is a good example of in-fill development and offers great promise to fill a housing void for working families. While most people recognize the need for housing, they also do not want to accept that new housing will have both positive and negative effects. The tradeoff of a few more seconds in traffic is worth having the workforce we need in Petaluma to keep companies here and the economy strong. That workforce also consists of our teachers, city employees, hospital workers and other key employees who we depend on every day. We need the top talent to be in Petaluma!

Please don't succumb to the NIMBYs on this project. It is time to take a stand for doing what's good for the majority of the community and remove the barriers to building housing that is needed now. This project has been kicking around for over a decade. It is a symbol of why we have a housing crisis. It is time to act. It is time to make approving new housing your priority.

Thank you.

Sincerely,

Cynthia L. Murray
President and CEO

775 Baywood Dr., Suite 101 • Petaluma, CA 94954
707.283.0028 • Fax: 707.763.3028 • www.northbayleadership.org

Response to Letter AC Sherry Kamages, 5-21-18

Response to Comment AC-1

Please see Master Response to Comments on the Shasta Avenue Extension and its associated rail crossing (Chapter 4) as well as the description of the Revised Project (Chapter 2) providing an explanation as to why the Shasta Avenue Extension is no longer being considered under the Revised Project.

Response to Comment AC-2

Please see Master Responses to Comments on Traffic specific to Graylawn and Jess Avenues.

Response to Letter AD Samer Rabadi, 5-21-18

Response to Comment AC-1

Please see Master Response to Comments on the Shasta Avenue Extension and its associated rail crossing (Chapter 4) as well as the description of the Revised Project (Chapter 2) providing an explanation as to why the Shasta Avenue Extension is no longer being considered under the Revised Project. Please also see Master Responses to Comments on Traffic specific to Graylawn and Jess Avenues.

Response to Comment AC-2

Please see Master Response to Comments on Flooding and Master Response to Comments on Wetlands and Riparian Habitat.

Response to Letter AE Cynthia Murray, North Bay Leadership Council, 5-21-18

Response AE-1

The commenter's perspectives on the need for additional housing within the City of Petaluma, especially housing for the local workforce and affordable housing, are noted and will be forwarded to the Planning Commission and City Council for their consideration.

The City's most recent affordable housing ordinance, which requires construction of affordable housing units on site unless the City Council specifically grants a method of alternative compliance, became effective on October 18, 2018, well after the Project application was filed and deemed complete. Projects with applications deemed complete prior to January 1, 2019 are not subject to the inclusionary provisions of the October 2018 ordinance, but are instead subject to the provisions of the previous affordable housing policy. That previous policy required either dedication of 15% of the units on-site as affordable or payment of an affordable housing in-lieu fee or an alternative method to meet the intent of the inclusionary requirement subject to approval by the City Council. The option of an alternative method enables the City and the project applicant to work together to establish a mutually agreed upon and mutually beneficial affordable housing component for the Project, pursuant to consideration of the relative public benefits attributable to the Project. The applicant has recently indicated their intention to provide 10.2% of the total units of the Revised

Project (or 21 units) as affordable (with half of those units affordable at the low-income level, and half of those units affordable at the median-income level).

The comment letter does not raise any questions or comments regarding the Draft EIR or the CEQA process.

Response to Comments made at Public Hearings

Introduction

This chapter includes summaries of oral comments based on notes taken during public hearings on the Draft EIR at the April 18, 2018 Planning Commission and the May 21, 2018 hearing of the City Council. Specific responses to these individual oral comments follow each summary.

Responses focus on comments that pertain to the adequacy of the analysis in the Draft EIR or to other aspects pertinent to the potential effects of the Project on the environment pursuant to CEQA. Comments that address topics beyond the purview of this EIR or CEQA are noted as such for the public record. Where comments have triggered changes to the Draft EIR, these changes are summarized in the response and are consolidated in Chapter 7: Revisions to the Draft EIR, where they are listing in the order that the revision would appear in the Draft EIR document.

Master Responses to recurring comments may be found in the prior Chapter 4 of this document.

Comments at April 18, 2018 Planning Commission Hearing

Speaker 1: Mr. Mattson

As a resident of Bernice Court, this speaker expressed concern about how the Bernice Court EVA would be blocked off and controlled so that it would not be used in non-emergency situations.

Response: The emergency vehicle access between the Project site and Bernice Court would be gated and the gate controlled by a lock-box or its equivalent, as specified by the Fire Department. Only emergency responders would have the remote key to control the gate, allowing them to open the gate and pass through in emergencies. At all other times, the gate would remain closed and locked. To ensure that the Bernice Court frontage provides continuous emergency access, the Fire Marshal has further recommended (see Recommendation Haz-7) that the EVA be designed to maintain emergency access at all times through the proper siting of bollards, striping, signage and other indicators, and that the EVA design be reviewed and approved by the Fire Marshal.

The speaker expressed concerns about the poor conditions of Shasta Avenue on the opposite (easterly) side of the SMART rail tracks.

Response: The original Project had proposed to improve Shasta Avenue over the rail tracks to the point where existing Shasta Avenue meets current City street standards (westerly of Petaluma Boulevard). The Revised Project no longer includes a Shasta Avenue extension or rail crossing, and no improvements to Shasta Avenue on the opposite side of the rail tracks are proposed or required for the Revised Project.

The speaker expressed concerns about the technical design of the rail crossing, and that there were both horizontal and vertical dimensions to this crossing not yet fully considered.

Response: The Revised Project no longer includes a Shasta Avenue extension or rail crossing, and detailed designs for the Shasta Avenue crossing are no longer proposed or required.

The speaker also expressed concerns about traffic levels on Graylawn Avenue, suggesting that traffic counts under-report existing traffic conditions and that this street cannot accommodate any more traffic.

Response: Please see Master Responses to Comments on Traffic specific to the accuracy of traffic counts and traffic levels on Graylawn and Jess Avenues.

Speaker 2: Mr. Obaid

The speaker suggested that Graylawn Avenue should not be defined as a residential street, but rather as a cul-de-sac because it is not a through street. The speaker expressed concern about increased traffic on Graylawn and the effect that the Project's traffic would have on the neighborhood. The speaker indicated that all of the neighbors are concerned about traffic issues, and that the existing Oak Creek Apartments already generate traffic problems, which will only get worse with the Project.

Response: Please see Master Response to Comments on Traffic specific to Graylawn and Jess Avenues. Graylawn is a public street serving residential uses that terminates in turnaround. Lack of a through connection and presence of a turn around, cul-de-sac, bollard or other street configuration does not dictate the street classification.

The speaker suggested that the existing Oak Creek Apartments are more densely populated than the Draft EIR suggests, generating greater traffic than presented in the Draft EIR.

Response: Please see Master Response to Comments on traffic specific to the accuracy and applicability of traffic counts, and the accuracy of the trip generation rates. As demonstrated in Table 4-3 of this document, the local trip generation rates from the Oak Creek Apartments (as counted in February 2019) do not differ substantially from the trip generation rates used in the Draft EIR as derived from the ITE Trip Generation 9th Edition.

The speaker suggested that the City's livable street standard for residential roadways was not working now, and that traffic generated by the Project would make things worse.

Response: Please see Master Responses to Comments on Traffic, generally and specific to traffic levels on Graylawn and Jess Avenues. As noted in the Draft EIR, the City's roadway design standards as defined in the Petaluma 2025 Mobility Report are not CEQA thresholds, and the Draft EIR did not use these standards to identify CEQA-related environmental impacts. Rather, these design standards provide a relative means of measuring the effect of increased vehicle traffic on the qualitative livability of the street environment and adjacent residential uses. Exceeding this design standard is not considered a significant environmental impact, but does indicate that the City and the project applicant should consider implementation of traffic calming measures to improve and enhance the livability of the adjacent neighborhood. A conceptual Traffic Calming Plan has been prepared for the Revised Project (see **Appendix A**), to be considered concurrently with consideration of Project approvals. The Traffic Calming Plan outlines several traffic calming concepts that the City, Project Sponsor and neighborhood residents could pursue in a manner consistent with the City's goals for traffic calming in residential neighborhoods, as outlined in the City's 2025 General Plan. All scenarios of the Traffic Calming Plan include traffic-calming elements for both Graylawn and Jess Avenues to avoid creating a situation where a traffic-calming program on Graylawn Avenue causes drivers to divert onto Jess Avenue. The strategies presented within the Traffic Calming Plan are intended to be conceptual in nature and are not intended for immediate implementation without a community engagement process followed by detailed engineering design. The applicant shall coordinate with City Public Works staff on the preferred Traffic Calming approach and design (anticipated to be similar in nature to Concept 3 as shown in the conceptual Traffic Calming Plan of Appendix A), and

the preferred Traffic Calming Plan shall be shown on the plan set for SPAR review. As part of the SPAR process, the Planning Commission will review and consider approval of a final Traffic Calming Plan, specifically determining which traffic calming measures will ultimately be implemented. The Public Improvement plan set for the Revised Project shall include the final Traffic Calming Plan.

Speaker 3: Ms. Kull

The speaker introduced herself as working for the Marin County Flood Control District and an expert on the issues of flooding. The speaker suggested that the Project site is a “living floodplain” that acts like a sponge to protect the City from increased flooding, and that covering this floodplain with impervious surfaces such as proposed pursuant to the Project would exacerbate flooding conditions and that mitigation measures identified in the Draft EIR to address this concern were not adequate.

Response: Please see Master Responses to Comments on Flooding and Master Response to Comments on Wetlands. Both the original Project and now the Revised Project provide a 200’ setback from the centerline of the Petaluma River consistent with General Plan policy. No new apartment structures pursuant to either the original Project or the Revised Project are located within the 100-year floodplain of the Petaluma River.

As stated in the Draft EIR, the majority of those portions of the site to be developed are underlain by low permeable soil formations of Yolo and Clear Lake clays. Generally, these soil types are poorly drained, runoff rates are high and permeability is slow to very slow. As such, stormwater does not drain off the site quickly but also does not infiltrate (or seep into the ground) quickly. Instead, stormwater tends to spread and pond on the surface until the ground is saturated, and then runs off the site towards the River. Analysis presented in the Draft EIR (beginning at page 11-26) concluded that, because of the site’s location within the downstream portion of the watershed, existing runoff from the site leaves the site and passes downstream in the River prior to the onset of larger peak flows generated further upstream in the watershed. Projects in this area of the watershed and immediately adjacent to the River can minimize flood impacts by letting their runoff leave the site and enter the downstream drainages as quickly as possible.

Both the original Project and the Revised Project include a terraced grading plan along the riverbanks fronting the Project site, consistent with General Plan policies to improve flood capacity and flow efficiency. As indicated in the Draft EIR, the increased flood flows attributable to the original Project near its outfall location show a minor increase in the peak 100-year storm flow in the River of about 0.1 percent. This increased flow was found to be within the limits of model tolerances and was not considered significant. Increased runoff due to the original Project, combined with increased capacity of the river channel associated with the original Project’s terraced grading would result in similar, minor increases in 100-year storm flows downstream of the site (less than one-half of 1% at all measured locations). The increased flows at further downstream locations appear to be attributable to the increased capacity of the River channel and its ability to convey increased flows downstream. Other than the terraced grading plan along the western riverbank fronting the Project site needed to improve citywide flood capacity and flow efficiency, consistent with the City’s General Plan, no further flood control mitigation of the project is warranted.

The speaker suggested that the Draft EIR was not adequate because it did not analyze additional flooding scenarios such as a 200-year flood condition, which now occurs more frequently than an average of once every 200-years.

Response: The analysis of potential flooding conditions as presented in the Draft EIR relies on the City’s latest XP-SWMM hydrology model to quantify potential increases in Petaluma River flows under both 10-year and 100-year flood events. The 100-year flood event is used because it matches with current regulatory requirements, and the 10-year event is used because it represents the

minimum design flow as specified by the Sonoma County Water Agency for minor waterways of 1 square mile or less.¹

- FEMA's Special Flood Hazard Area (AE) is defined as the area subject to inundation by the 1% annual chance flood (100-year flood, or base flood).
- FEMA distributes Flood Insurance Rate Maps (FIRMS), which are used in the National Flood Insurance Program (NFIP) and that identify the locations of special flood hazard areas (SFHAs), including the 100-year base flood. The most current FEMA FIRM maps, as used in the Draft EIR are dated February 18, 2014
- The City of Petaluma's Implementing Zoning Ordinance sets measures for the construction, location, conversion, or alteration of any structures or land contained within FEMA designated 100-year flood hazard zones in the City.
- Petaluma General Plan Policy 8-P-33 provides that any project within an area subject to inundation in a 1% (100-year) storm event shall include site-specific analysis of impacts and identification of mitigations.
- The City's high performance XP-SWMM storm water model includes accurate topographical input data and reliance on almost 100 years of Petaluma rainfall data and previous flood events.

Although FEMA's Special Flood Hazard Area maps do identify a 500-year floodplain boundary, these boundaries are not used for regulatory purposes. No official mapping (by FEMA or the City) of a 200-year flood plain is available or used for any regulatory purpose.

The speaker indicated that elevated sediment loads in the Petaluma River have a substantial but unaccounted for increase in water surface elevations, and that accordingly the hydrology modeling presented in the Draft EIR under-reports flooding conditions.

Response: Please see Master Response to Comments on Flooding specific to increased sedimentation of the River.

The speaker suggested that neither the Project nor the Draft EIR presented reasonable best management practices (BMPs) for water quality treatment.

Response: The original Project did include a preliminary Stormwater Control Plan (CSW/Stuber Stroeh Engineering Group, Inc., July 2015) that was summarized in the Draft EIR (starting at page 11-16). The original Project's Stormwater Control Plan was prepared using the template and manual as provided by the Bay Area Stormwater Management Agencies Association (BASMAA). As documented in the Draft EIR, the original Project did not fully comply with site design measures of the BASMAA manual in that it did not conserve natural areas of the site as much as possible and did not fully comply with all stream setback ordinances and requirements. The Revised Project now includes setbacks from the River that demonstrate greater compliance with these site design measures.

The original Project's preliminary Stormwater Control Plan (and now the Revised Project's preliminary Stormwater Control Plan) does comply with other site design measures for regulated projects. These measures include identifying potential sources of stormwater pollutants and providing for source control measures, routing stormwater runoff to bioretention or other facilities that were sized and designed according to BASMAA criteria, and providing for ongoing maintenance of bioretention facilities. As indicated in Figure 3-4 of this document, the Revised Project includes bioretention facilities adjacent to buildings to provide initial treatment of runoff, bioretention basins

¹ Sonoma County Water Agency, Draft Flood Management Design Manual, August 2019

to provide additional water quality treatment prior to discharge, and pervious pavement treatments to decrease surface runoff and provide for self-treating of water quality.

Mitigation Measure Hydro-2A: SWCP Implementation, remains applicable to the Revised Project and requires that the Project's final design, construction and implementation comply with all appropriate post-construction stormwater treatment measures to reduce water quality impacts to downstream reaches as required by the current post-construction control requirements of the Small MS4 General Permit. Upon completion of the final project design, the applicant is required to provide documentation of stormwater management measures that show compliance with the Small MS4 General Permit.

The speaker suggested that the Draft EIR's cumulative analysis of sea level rise was inadequate, in that it only addressed a buildout condition at year 2025. Cumulative sea level rise concerns extend far out beyond year 2025.

Response: As indicated in the Draft EIR (page 19-6), the cumulative analyses presented in the Draft EIR relied on a reasonable combination of two approaches for identifying cumulative conditions, specifically using a "pipeline" list of present and probable future projects for analysis of traffic impacts, and using development assumptions of the City's General Plan for most all other environmental topics. Specific to the analysis of potential sea level rise, the Draft EIR relied on the San Francisco Bay Conservation and Development Commission's (BCDC's) sea level rise projections, which are based on 16 inches of sea level rise by mid-century (year 2050), and 55 inches of sea level rise at the end of the century (year 2100). These cumulative scenarios assume a sea level rise scenario coupled with extreme high tide, a 100-year storm event, and waves. The Draft EIR's cumulative analysis of sea level rise is adequate and does extend far out beyond year 2025.

Planning Commissioner Wolpert

1. The Commissioner questioned whether the site plan and architecture for the Project was set as proposed, or may change pursuant to subsequent City processes. The Commissioner questioned whether the environmental review analyzed a generic project with a certain density, or a final design. The Commissioner also presumed that a final design would need to implement many mitigation measures as recommended in the Draft EIR.

Response: The Draft EIR analyzed the original Project as presented in Draft EIR Chapter 3: Project Description. This Response to Comments document provides an updated analysis of the Revised Project as presented in Chapter 2: Revised Project Description of this document. These analyses are specific to the conceptual site plan as designed in the applicant's current submittals. However, changes to the site plan (such as those reflected in the Revised Project) will need to be implemented to comply fully with all mitigation measures, and architectural design of the buildings will be detailed and conducted pursuant to the City's subsequent Site Plan and Architectural Review (SPAR) process. The SPAR process will provide the City with the opportunity to ensure that all project specific mitigation measures adopted by the City are implemented.

2. The Commissioner noted that the project will generate more traffic on Graylawn Avenue and questioned whether mitigation measures are warranted.

Response: The City's roadway design standards as defined in the Petaluma 2025 Mobility Report are not CEQA thresholds, and the Draft EIR did not use these standards to identify any CEQA-related environmental impacts. Rather, these design standards provide a relative means of measuring the effect of increased vehicle traffic on the street environment and adjacent residential uses. Exceeding this design standard is not considered a significant environmental impact, but does indicate that the City and the project applicant should consider implementation of traffic calming measures to improve and enhance the livability of the adjacent neighborhood. A Traffic Calming Plan has been

prepared for the Project, to be implemented on Graylawn Avenue and Jess Avenue (please see **Appendix A** to this document). Please also see Master Responses to Comments on Traffic, generally and specific to traffic on Graylawn and Jess Avenues.

3. The Commissioner noted that the project's proposed pedestrian/bicycle trail does not appear to have any connections that would enable a pedestrian or bicyclist to connect elsewhere.

Response: The Project does include construction of a Class I bicycle and pedestrian path along its frontage of the Petaluma River, extending from the existing path's terminus at the Oak Creek Apartments to the westerly Project site boundary on the southeast side of the SMART rail tracks. This trail helps to implement the River Plan's goal for a walkway/trail along the entire length of the River within the city limits. Together, the proposed Sid Commons trail and the previously constructed Oak Creek Apartment trail would create a 1/3-mile segment of constructed river trail. This river trail does not extend north of the Project site, and the SMART rail tracks present an obstacle to a northerly extension of this trail on the west side of the River. The river trail does not appear improved south of the Oak Creek Apartments and does not currently provide a connection to the raised Payran Bridge. To connect elsewhere, Project residents and visitors can walk or ride on Graylawn or Jess Avenues to the existing sidewalk and Class 3 bicycle lane on Payran, cross the bridge and connect with the existing off-street (Class I) Lynch Creek Trail bike and pedestrian path on the southerly side of Lynch Creek. From there, the Lynch Creek Trail connects eastward to Lucchesi Park and points beyond.

The General Plan's Proposed and Existing Bicycle Facilities Diagram (Figure 5-2) indicates a "Proposed" Class I bike and pedestrian trail extending north along the westerly side of the River, and further extensions of the Lynch Creek Trail to the east. These "Proposed" Class I bike and pedestrian trails do not currently exist, but these trail extensions are part of the long-term goals of the River Plan. Additionally, the SMART Pathway Project (the Southpoint – Payran Multi-Use Pathway) on the west side of the rails is anticipated to be available for public use starting in October 2019, but then will be temporarily closed starting in the spring of 2020 due to commencement of the Highway 101 widening project to accommodate new carpool lanes from Corona Road to Lakeville Highway. That temporary closure of the SMART Pathway may last for as long as two years, when it will then re-open. New residents will be able to access the SMART pathway from Graylawn to Payran.

4. The Commissioner questioned whether the Project's terraced grading plan along the riverbank might have adverse effects on anadromous fish, and whether river widening may cause river waters to warm more quickly.

Response: The Draft EIR notes that three fish species are known or are suspected to occur in the reach of the Petaluma River that runs along the northeastern edge of the Project site - the Sacramento splittail, steelhead trout and Chinook salmon. This portion of the River is included in the designation of Critical Habitat for Central California Coast ESU steelhead trout (*Oncorhynchus mykiss irideus*). Unintentional introduction of sediment into the water from erosion or runoff has the greatest potential to affect steelhead, green sturgeon and/or the Sacramento splittail's feeding rates and growth, increase mortality, cause behavioral avoidance and reduce macro-invertebrate prey populations. Similarly, the unintended introduction of petrochemicals associated with grading equipment (fuel or other petrochemical release into waters) could injure or kill these fish populations and/or their macro-invertebrate prey populations.

The US Army Corps of Engineers (Corps) will determine the need to consult with the National Marine Fisheries Service (NMFS) for impacts related to terrace grading of the riverbanks on the federally listed Central California Coastal Steelhead DPS. Depending on the need for consultation, the Project applicant will be required to comply with all of the terms and conditions as required by NMFS. In addition to all avoidance and minimization measures as required by the resource agencies, the

Project shall implement erosion control requirements and best management practices for water quality protection during construction. Implementation of these mitigation measures would reduce potential impacts of the proposed Project on these fish species and their habitat to a level of less than significant. It is anticipated that once construction of the Petaluma River terrace and the habitat Mitigation and Monitoring Plan (HMMP) is complete, habitat for these fish species will be restored and possibly increased as a result.

5. The Commissioner questioned whether the Draft EIR had analyzed the combined effects of sea level rise and anticipated flood conditions.

Response: Sea level rise in the DEIR is discussed beginning on page 11-43. The Draft EIR relied on the San Francisco Bay Conservation and Development Commission's (BCDC's) sea level rise projections, which include scenarios of 16 inches of sea level rise by mid-century (year 2050), and 55 inches of sea level rise at the end of the century (year 2100). These sea level rise scenarios are also coupled with extreme high tide, increased runoff from the 100-year storm event, and waves.

6. The Commissioner questioned whether greenhouse gas emissions had been thoroughly investigated.

Response: As indicated on page 9-16 of the Draft EIR, estimated operational greenhouse gas emissions for the original Project are 2,590 metric tonnes CO₂e per year, which exceeds the annual BAAQMD significance threshold of 1,100 MT/year. However, development of the original Project would have resulted in construction of 278 new residential units. At an average of 2.60 persons per household, there would be approximately 723 new residents. Dividing the annual GHG emissions by this service population resulted in a service population ratio of approximately 3.58 MT CO₂e per service population per year. This is well below the BAAQMD significance threshold of 4.6 MT CO₂e/SP/year, or less than significant. Furthermore, the Project will be required to comply with all CALGreen + Tier 1 building code requirements per City of Petaluma ordinances, thereby further reducing GHG emissions.

Please also see the Comparative Environmental Assessment of GHG impacts of the Revised Project in Chapter 3 of this document.

7. The Commissioner questioned the roadway designations for Payran Street and Graylawn, specifically questioning whether these streets should be considered arterial, collector, local or residential streets.

Response: The Draft EIR incorrectly characterized Payran Street as a collector street, whereas the General Plan Street Classifications Diagram shows Payran as an arterial, and Graylawn Avenue as a residential street. The City's roadway design standards as defined in the Petaluma 2025 Mobility Report do not relate to the physical capacity of the roadway based on right-of-way or pavement widths, but rather are a qualitative standard more related to intended traffic carrying capacity and adjacent land uses.

8. The Commissioner noted that Sonoma County Environmental Health and Safety (EHS) is a "Program", not a "Division".

Response: Comment noted. Please see Chapter 7: Revisions to the Draft EIR, for this correction.

9. The Commissioner questioned whether the Draft EIR analysis of flooding concerns should have used a 200-year flood rather than the 100-year flood conditions.

Response: As indicated in response to Speaker 3 comments (above), the analysis of potential flooding conditions as presented in the Draft relies on the City's latest XP-SWMM hydrology model to quantify potential increases in Petaluma River flows under a 100-year flood event. The 100-year flood event is used because it matches with current regulatory requirements including FEMA's Special Flood Hazard Area (the 1% annual chance flood, or 100-year flood, or base flood), FEMA Flood Insurance Rate Maps, the City of Petaluma's Implementing Zoning Ordinance and Petaluma

General Plan policy. No official mapping (by FEMA or the City) of a 200-year flood plain is available or used for any regulatory purpose.

10. During the Commission's final comments and suggestions on the Draft EIR, the Commissioner reiterated concerns about flooding, traffic circulation without Shasta Avenue, pedestrian and bike paths need to connect elsewhere, concern about the loss of oak trees due to terracing, and potential impacts on fish and their river habitat.

Response: Please see Response 9 above and Master Responses to Comments regarding flooding in Chapter 4 of this document.

Regarding traffic concerns without the Shasta Avenue extension, please see Master Response to Comments on Traffic specific to Graylawn Avenue and Jess Avenue Traffic Impacts. Even though the Revised Project is reduced in size and the total number of vehicle trips is commensurately reduced, the Revised Project will still increase traffic on Graylawn Avenue over the City's design standard of 2,000 average daily trips (ADT). As stated on page 14-72 of the Draft EIR, the original Project would have contributed 1,808 ADT to Graylawn Avenue (assuming no trips used Jess Avenue) and would have resulted in a total of 2,762 ADT on Graylawn. Under the Revised Project, the project's contribution to ADT would be 1,368 for a total of 2,510 ADT on Graylawn Avenue (See Table 4-7 in Chapter 4 Master Response to Comments).

Regarding pedestrian and bicycle paths, please see Response 3 above.

Regarding the loss of oak trees due to terracing, please see the comparative analysis of tree removal and tree protection in Chapter 3 of this document. This analysis demonstrates that with the reduced density and modified layout, the Revised Project is able to reduce by a substantial amount the number of trees proposed for removal as compared to the original Project. Specifically, the Revised Project has modified the terrace design to preserve the two oak trees that the original Project had proposed to remove in order to create the river terrace.

Regarding fish and fish habitat, please see Response 4 above.

Commissioner Petnic

1. The Commissioner questioned the adequacy of the project's proposed pedestrian and bicycle path.

Response: As indicated in the response to Commissioner Wolpert (above), the Project does include construction of a Class I bicycle and pedestrian path along its frontage of the Petaluma River, extending from the existing path's terminus at the Oak Creek Apartments to the westerly Project site boundary on the east side of the SMART rail tracks. The Revised Project proposes that a small branch of the trail leads to the River edge. The project applicant and Staff intend for this river trail to be open and available to the public. Please also see Response to Commissioner Wolpert's Comment #3 (above).

2. The Commissioner suggested that a more appropriate density for this site might be in the range of 10 to 12 dwelling units per acre on the approximately 15-acre site, yielding a development program of approximately 150 units.

Response: As a discretionary application, the City has discretion to approve, modify (i.e., change the density) or deny the project as proposed. The CEQA analysis is intended to (and required to) analyze the project as it is proposed, at 278 units under the original Project, which at 15.45 net developable acres yielded a density of 17.99 units per acre. The Draft EIR Alternative chapter provided analysis for a reasonable range of densities between 35 units, 79 units and 149 units (see Chapter 7: Revisions to the Draft EIR regarding the 149-unit alternative definition). The Revised Project now proposes a development program of 205 units, which at approximately 15.7 net developable acres, yields a density of approximately 13.1 units per acre.

3. The Commissioner commented on the appropriateness of the project's proposed parking ratios of 1 parking space per bedroom versus 1.5 parking spaces per unit.

Response: As indicated in the Draft EIR (page 14-85), the California Court of Appeal has held that parking is not part of the permanent physical environment and that parking demand created by a project need not be considered a significant environmental impact under CEQA, unless it would cause significant secondary effects. Similarly, the December 2009 amendments to the State CEQA Guidelines removed parking from the State's Environmental Checklist. As such, parking conditions were evaluated in the Draft EIR as a non-CEQA topic for informational purposes.

The Draft EIR evaluated whether parking demand would be met by the proposed parking supply. Pursuant to the City of Petaluma Zoning Ordinance (Section 11.060, Table 11.1), required parking is "one parking space for every bedroom, studio, or efficiency unit" and that "in no case shall a project provide an overall parking ratio of less than 1.5 spaces per unit". For the 278 unit original Project, comprised of 120 one-bedroom units and 158 two-bedroom units, the per-bedroom parking requirement equated to 436 parking spaces, greater than the 417 parking spaces otherwise required under the 1.5 space per unit minimum. The original Project's proposed site plan showed 445 total off-street parking spaces for both residents and visitors, thereby meeting the applicable 436 minimum parking space requirement. For the 205 unit Revised Project, comprised of 39 one-bedroom units and 166 two-bedroom units, the per-bedroom parking requirement equates to 371 parking spaces, greater than the 307 parking spaces otherwise required under the 1.5 space per unit minimum. The Revised Project's site plan shows 430 total off-street parking spaces for both residents and visitors, thereby meeting the applicable 371 minimum parking space requirement.

4. During the Commission's final comments and suggestions on the Draft EIR, the Commissioner reiterated concerns about the effects of terracing and tree removal, comments on appropriate density, burdens on the surrounding street system, parking and access to the River.

Response: Please see Response to Commissioner Wolpert's comments #10 (above) regarding terraced grading and tree removal.

Regarding comments on appropriate density for the project, please see Response 2 above.

Regarding burdens on the surrounding street system, please see Master Response to Comments on Traffic specific to Graylawn and Jess Avenue. Even though the Revised Project is reduced in size and the total number of vehicle trips is commensurately reduced, the Revised Project will still increase traffic on Graylawn over the volume of traffic that was presented in the Draft EIR in its analysis of the original Project with the Shasta Extension.

Regarding parking and parking ratios, please see Response 3 above.

Regarding public access to the riverfront trail and the River, please see Response 1 above.

Commissioner Bauer

1. The Commissioner noted that Appendix 6B: Habitat Mitigation and Monitoring Plan (HMMP), was not included in the printed set of the Draft EIR.

Response: Comment noted. None of the technical appendices to the Draft EIR was made available as printed hard copies. CDs containing all of the DEIR technical appendices (including the HMMP) were made available to the Commissioners and the public, and were posted on the City website.

2. The Commissioner noted that changes in the level of sedimentation in the Petaluma River might affect flood levels, such that existing and potential future flood conditions may be worse than reported in the Draft EIR. The Commissioner also noted that although the City is working toward implementation of a dredging plan for the River to remove silt, the extent of that dredging plan is not yet known.

Response: Please see Master Response to Comments on Flooding specific to Petaluma River sedimentation.

3. The Commissioner questioned staff about the zoning that applied to the site prior to the currently effective 1982 PUD and whether it was zoned Agriculture at that time.

Response: Staff indicated that the property was annexed into the City in 1981 and was not (to Staff's knowledge) pre-zoned by the City prior to its annexation. To add further detail, when the neighborhood was first annexed into the City (pursuant to the 147-acre Graylawn Annexation, recorded December 30, 1981) it was zoned as R1-6500 (Single-family Residential) before the Oak Creek Apartments PUD was approved in 1982.

4. The Commissioner was concerned about the availability of public access to the on-site trail and to the River.

Response: As indicated in the response to Commissioner Wolpert (above), the Project does include construction of a Class I bicycle and pedestrian path along its frontage of the Petaluma River, extending from the existing path's terminus at the Oak Creek Apartments to the northwesterly Project site boundary (east of the SMART rail tracks). The Revised Project proposes a small branch of the trail leads to the River edge. The project applicant and Staff intend for this trail to be open and available to the public.

5. The Commissioner questioned whether the most recent traffic counts conducted for the analysis presented in the Draft EIR were correctly timed, or were correctly accounted for traffic changes associated with the McKinley School.

Response: Please see Master Response to Comments on Traffic specific to the accuracy and applicability of traffic counts. New traffic volume and traffic speed data was collected in January and March of 2019 to address the comments and questions about traffic levels near the site. The new traffic counts were collected on typical weekdays while school was in session, and when the weather was sunny and without rain. The counting machines were active for a continuous 72-hour period starting Tuesday January 22, 2019 and ending Thursday January 24, 2019, during the one week without rain during the initial data collection period. Supplemental peak period and 72-hour traffic counts were conducted in March 2019 to confirm that the January counts were not influenced by the Martin Luther King Jr. holiday (Monday January 21st). The March 2019 counts are not substantially different from the January 2019 counts and thus confirm that the January counts adequately represent 2019 conditions.

Based on 2019 traffic counts, total traffic volumes at measured intersections have decreased by an average of approximately 12 percent during the PM peak hour, but total traffic volumes have increased by an average of approximately 13 percent during the AM peak hour as compared to traffic volumes as presented in the Draft EIR. Traffic data presented in the Draft EIR indicated that these intersections were more congested during the PM peak hour than during the AM peak hour, and the 2019 traffic counts now indicate that traffic congestion during the AM peak hour has increased, and is now similar to the PM peak hour. One possible reason that traffic volumes adjacent to the site have decreased in the in the PM peak hour may be due to "peak period spreading", where the actual traffic volumes during the peak hour do not substantially change but the length of the peak period has increased.

6. The Commissioner noted that the intersection of Graylawn/Payran is controlled by a 1-way stop sign, and questioned the Level of Service "B" conclusions of the Draft EIR at this intersection, especially due to the large number of left turns in and out of this intersection.

Response: Please see Master Response to Comments on Traffic, generally and specific to the accuracy and applicability of traffic counts. This Master Response provides an analysis of traffic

volumes obtained in the most current (2019) traffic counts and resulting level of service at Graylawn/Payran (see Table 4-1 of this document). This newer information indicates that, although traffic volumes at this intersection have increased over the traffic volumes as presented in the Draft EIR, the increase in relative traffic volumes has not significantly affected intersection operations, which would remain at acceptable (LOS D or greater) conditions.

7. The Commissioner questioned whether the trip generation rates as applied to the project are correct.

Response: Please see Master Response to Comments on traffic specific to the accuracy of the trip generation rates. To test whether the ITE trip generation rates as used in the Draft EIR provide an accurate estimate of expected local trip generation characteristics, the number of vehicle trips generated by the existing Oak Creek Apartments (a low-rise apartment building neighboring the site) was counted and compared to ITE rates. As demonstrated in Table 4-3 of this document, the local trip generation rates from the Oak Creek Apartments do not differ substantially from the trip generation rates used in the Draft EIR.

8. During the Commission's final comments and suggestions on the Draft EIR, the Commissioner reiterated comments on the reality of the Shasta rail crossing, the project's density, concerns about tree removal and migration corridors along the river, and the need for habitat protection.

Response: Please see Master Response to comments about the Shasta Avenue Extension and At-Grade Rail Crossing, indicating that the Revised Project (the applicant's current proposal) no longer proposes this roadway improvement.

Regarding comments on appropriate density for the project please see the response to Commissioner Petnic's comment 2, above.

Please see Response to Commissioner Wolpert's comments 10 (above) regarding terraced grading and tree removal.

Regarding habitat protection, please see Master Response to Comments on Wetlands and Riparian Habitat.

Commissioner Alonso

1. The Commissioner noted that the City will need to take a hard look at the proposed Shasta Avenue extension and its associated rail crossing, and suggested that this crossing was not going to occur

Response: Please see Master Response to comments about the Shasta Avenue Extension and At-Grade Rail Crossing, indicating that the Revised Project (the applicant's current proposal) no longer proposes this roadway improvement.

2. The Commissioner expressed concerns about the feasibility of the Draft EIR Alternative 3B and Alternative 4, and noted that the project will need to address issues of housing affordability.

Response: The Draft EIR recognized that Alternative 3B (at 79 units) might not be able to support the costs associated with terraced grading. Additional financial information about the project has been provided by the applicant to the City Planning Commission and City Council (see Comment Letter E3 in this Response to Comments document) for use in deliberating the merits of the currently proposed Revised Project.

In regards to housing affordability, the applicant intends to provide 10.2% of the total units of the Revised Project (21 units of the proposed 205 units) as affordable units, with half of those units affordable at the low-income level and half of those units affordable at the median-income level (see also Response # C-5).

Comments at May 21, 2018 City Council Hearing

Speaker 1: Mr. Lareau

The speaker suggested the project be required to open the Shasta Avenue extension, and that parking requirements be increased to three spaces per unit.

Response: Please see Master Response to comments regarding the Shasta Avenue Extension and At-Grade Rail Crossing, indicating that the Revised Project no longer proposes this roadway improvement. Pursuant to the City of Petaluma Zoning Ordinance (Section 11.060, Table 11.1), required parking is 1 parking space for every bedroom, studio, or efficiency unit, and in no case shall a project provide an overall parking ratio of less than 1.5 spaces per unit. Both the original Project and the Revised Project meet and exceed these parking requirements (see also Response #3 to Commissioner Petnic's comments above).

Speaker 2: Mr. Fox

The speaker agreed with the previous comments about traffic and parking, also raising concerns about cut-through traffic through the neighborhood.

Response: Please see Response to Speaker 1 above regarding Shasta Avenue crossing and parking. Please also see Master Response to Comments regarding Traffic, generally. As indicated in the Draft EIR (page 14-70), any cut through route using Graylawn Avenue to travel through the Project as a shortcut between Payran Street and Petaluma Boulevard via Shasta Avenue would be circuitous and unlikely to induce significant traffic demand, compared to the more direct route via Payran Street. Therefore, the original Project would not have added substantial cut-through vehicles to Graylawn Avenue. Please see Master Response to comments regarding the Shasta Avenue Extension and At-Grade Rail Crossing, indicating that the Revised Project no longer proposes the Shasta Extension or its potential to provide a cut-through route.

Speaker 3: Mr. Thomas

The speaker spoke in favor of the project, citing a need for more housing.

Response: The speaker did not address any questions or comments on the Draft EIR, and no response is provided.

Speaker 4: Ms. McGhee

The speaker expressed concern about the effects of the project on wildlife along the River, and about the increased traffic congestion that the Project would generate, especially on Payran Street.

Response: Please see Master Response to Comments on Wetlands and Riparian Habitat pertaining to wildlife along the River. Please see Master Response to Comments on Traffic, generally.

Speaker 5: Mr. Terrell

The speaker noted that traffic at Petaluma Boulevard North /Shasta is already backed up, and that constructing the original Project's Shasta Avenue Extension would result in building a traffic bottleneck. The speaker cited expected costs for construction of an at-grade rail crossing, and suggested that these costs had not been factored into the feasibility of the project.

Response: Please see Master Response to comments about the Shasta Avenue Extension and At-Grade Rail Crossing, indicating that the Revised Project (the applicant's current proposal) no longer proposes this roadway improvement.

Speaker 6: Ms. Jeans

The speaker asked the Council not to approve a project that includes the Shasta Avenue Extension.

Response: Please see Master Response to comments about the Shasta Avenue Extension and At-Grade Rail Crossing, indicating that the Revised Project (the applicant's current proposal) no longer proposes this roadway improvement.

The speaker indicated that the existing floodplain on this site absorbs runoff and protects downstream flooding, and that this protection would no longer be provided if the site were to be developed.

Response: Please see Master Responses to Comments on Flooding, specifically the project-specific effects on flooding due to increased runoff. Also see responses to Speaker 3's comments above under the Planning Commission hearing.

The speaker expressed concern about the loss of animal habitat along the riverbanks.

Response: Please see Master Responses to Comments on Wetlands and Riparian Habitat.

The speaker noted that the project would generate too much traffic and parking in the surrounding neighborhood, especially on Payran Street.

Response: Please see Master Response to Comments on Traffic, generally. Please also see Response to Planning Commissioner Petnic's comment #3 above regarding the appropriateness of the parking ratios used in the design of the original Project and the Revised Project.

The speaker questioned who would be responsible for paying costs associated with the Shasta Extension and rail crossing, including roadway upgrades necessary to accommodate trucks.

Response: Please see Master Response to comments about the Shasta Avenue Extension and At-Grade Rail Crossing, indicating that the Revised Project (the applicant's current proposal) no longer proposes this roadway improvement.

Speaker 7: Ms. Terrell

The speaker expressed concern about traffic levels on the 1-block long street segment of Shasta Avenue between the site and North Petaluma Boulevard.

Response: Please see Master Response to comments about the Shasta Avenue Extension and At-Grade Rail Crossing, indicating that the Revised Project (the applicant's current proposal) no longer proposes this roadway improvement.

The speaker suggested that the project proposed too many people for this site.

Response: See Chapter 2: Revised Project Description, which demonstrates the applicant's current proposal to construct 205 apartment units on the site, rather than the 278 units as proposed pursuant to the original Project.

The speaker expressed concern about animals dependent upon habitat along the River.

Response: Please see Master Responses to Comments on Wetlands and Riparian Habitat.

Speaker 8: Ms. Reed

The speaker described her experiences of being flooded with runoff in her back yard ever since construction of the adjacent Oak Creek Apartments, and concern that the project would make this flooding issue even worse.

Response: Please see Master Response to comments on Flooding, specifically the project-specific effects on flooding due to increased runoff and the project's preliminary Stormwater Control Plan,

which collects all runoff from the site within a storm drain system that is directed away from the Jess Avenue neighborhood and toward the Petaluma River.

The speaker expressed concern that new traffic generated by the Project will use Jess Avenue, which was not addressed in the Draft EIR.

Response: Please see Master Response to Comments on Traffic specific to traffic on Graylawn and Jess Avenues.

The speaker expressed concern about impacts to wild turkeys, skunks, possum and other wildlife that reside in and use the site.

Response: Common and urban-adaptive wildlife species such as skunks, possum and others are not afforded protection as sensitive (rare, threatened or endangered) species under state regulations or local Petaluma General Plan policies, and as such are not addressed in the EIR.

The speaker noted that public access to the existing riverfront trail is effectively closed off at the Oak Creek Apartments.

Response: The riverfront trail along the Oak Creek Apartments is within a public access easement, but a public access connection from this trail to Graylawn Avenue (through the northern Oak Creek Apartment parking lot) is unclear. At the time of the public hearings on the DEIR, there was a private property/no trespassing sign at the north end of this path (at the parking lot), which has subsequently been removed. The Project does include construction of a Class I bicycle and pedestrian path along its frontage of the Petaluma River, extending from the existing path's terminus at the Oak Creek Apartments to the northwesterly Project site boundary. A small branch of the trail leads to the River edge. The project applicant and Staff intend for this trail to be open and available to the public. The Project also proposes a public pedestrian and bicycle connection from Graylawn Avenue, north of the landscaped turnaround, to the combined (1/3rd of a mile long) Oak Creek and Sid Common Apartments public trail. The applicant will grant the City a public access easement to allow for public access to this River trail. This trail will also create a public connection from Graylawn Avenue such that public access through the existing Oak Creek Apartment parking lot is no longer needed.

The speaker noted that existing train noise is already loud, especially with new freight trains at 11:00 at night.

Response: Please see Master Response to Comments on Noise specific to train-related noise. Without the Shasta Avenue Extension and the at-grade rail crossing, the Project will not increase or materially affect train noise along the rail corridor.

Speaker 9: Mr. O'Hare

The speaker spoke about neighborhood home values and the quality of the surrounding neighborhood along Jess Avenue, and his concern about the adverse effects of the project especially related to increased traffic.

Response: Please see Master Response to Comments on Traffic specific to traffic on Graylawn and Jess Avenues.

The speaker expressed concern about increased flooding that would be caused by the Project.

Response: Please see Master Response to Comments on Flooding.

Speaker 10: Ms. Victor

The speaker spoke about existing traffic conditions on Payran and that the project would make these traffic conditions worse:

Response: Please see Master Response to Comments on Traffic, generally.

The speaker indicated that the traffic study conducted for the Draft EIR was not complete, even with 2015 updates, and specifically that traffic has increased even more substantially on Payran than is indicated in the Draft EIR.

Response: Please see Master Response to Comments on Traffic, specific to the accuracy and applicability of traffic counts as used in the Draft EIR.

Speaker 11: Ms. Barrett

The speaker expressed her support for many other speakers' concerns about traffic, agreeing that the Draft EIR underestimated the number of cars that would be generated by the Project, that there is not adequate capacity on Payran to accommodate increased traffic and that driving conditions will get worse with additional cars from the Project.

Response: Please see Master Response to Comments on Traffic, specifically to the accuracy and applicability of traffic counts, and the accuracy of the trip generation rates as used in the EIR.

Speaker 12: Ms. Kull

The speaker addressed many of the same concerns as expressed in her written comments. These concerns include that the flood control model does not adequately address increased sediment loads in the River; that the Project would adversely affect existing wetlands and flood flow retention especially in the winter; and that terraced grading may decrease the floodplain upstream but will increase flooding conditions downstream.

Response: Please see prior responses to Comment Letters F and K in Chapter 5 of this document, submitted by this speaker on the same topics.

The Speaker noted that cumulative upstream detention might never occur, but that the undeveloped Project site already provides for detention of runoff now.

Response: Please see Master Response to Comments on Flooding, specifically regarding the Hydrology-related Pros and Cons of River Terracing and the response to comments on Project-Specific Effects on Flooding addressing detention and runoff under existing conditions.

Speaker 13: Ms. Richardson

The speaker agreed with other speaker comments about traffic and flooding concerns. This speaker also suggested that 278 new residential units would generate a high number of emergency response needs that were not fully addressed in the Draft EIR.

Response: As indicated in Chapter 17 of the Draft EIR, development of a project at this site would place additional demands on existing fire protection and emergency medical response units. However, the development of a project (at 278 or 205 units) would not require the Petaluma Fire Department to construct additional fire stations or expand any existing facilities to serve the site effectively. Prior to development, the Developer would be required to pay all applicable impact fees related to fire protection and emergency response to enable the City to continue to meet established service objectives.

The speaker suggested that the open space on the site is too valuable, and that students catch and release salmon in the River at this area.

Response: As responded to under Planning Commissioner Wolpert's comments #3 (above), the Draft EIR does note that three fish species are known or are suspected to occur in the reach of the Petaluma River, including the Sacramento splittail, steelhead trout and Chinook salmon. Unintentional introduction of sediment into the water from erosion or runoff has the potential to

adversely affect these sensitive species. The Project's design and implementation of the terraced grading plan will require compliance with all terms and conditions as required by the state and federal regulatory agencies including the Regional Water Quality Control Board, the Department of Fish and Wildlife, USACE and/or NMFS. In addition to all avoidance and minimization measures as required by these resource agencies, the Project shall implement erosion control requirements and best management practices for water quality protection during construction. Implementation of these mitigation measures would reduce potential impacts of the proposed Project on these fish species and their habitat to a level of less than significant. It is anticipated that once construction of the Petaluma River terrace and the habitat Mitigation and Monitoring Plan (HMMP) is complete, habitat for these fish species will be restored and possibly increased as a result.

Speaker 14: Ms. Grady

The speaker questioned whether recharge of the aquifer would be lost due to development of the site.

Response: As indicated in the Draft EIR, it is unlikely that the upper portion of the site provides extensive groundwater recharge to the Petaluma Groundwater Basin. The development portion of the site is overlain by Yolo and Clear Lake clays, which have low permeability. The Petaluma River does provide extensive groundwater recharge, and the River and its associated floodway and floodplain will remain as open, impervious surface pursuant to the original Project and likewise under the Revised Project. The Revised Project will preserve a larger area along the River, being the River Plan Corridor comprised of the Preservation, Restoration, and Buffer Zones.

Speaker 15: Mr. McDonnell

The speaker noted that the SMART rail corridor is not providing a bicycle transportation corridor that connects to the site, and that better bike trail connectivity is needed.

Response: The SMART Pathway Project (the Southpoint – Payran Multi-Use Pathway) on the west side of the rails is anticipated to be available for public use starting in October 2019, but then will be temporarily closed starting in the spring of 2020 due to commencement of the Highway 101 widening project to accommodate new carpool lanes from Corona Road to Lakeville Highway. That temporary closure of the SMART Pathway may last for as long as two years, when it will then re-open. Existing residents in the Payran/Graylawn/Jess neighborhood and future Project residents will be able to access the SMART pathway near the existing at-grade crossing along Payran Street. The long-term goal of the River Plan is to have trails along the entire River edge.

The Project includes construction of a public Class I bicycle and pedestrian path along its frontage of the Petaluma River, extending from the existing path's terminus at the Oak Creek Apartments to the northwesterly Project site boundary (east of the SMART rail tracks). The applicant will grant the City a public access easement to allow for public access to the proposed Class I river trail, and will create a public connection from Graylawn Avenue to this river trail. As indicated in more detail in Response to Commissioner Wolpert's Comment #3 (above), pedestrians and bicyclists using this river trail can follow Graylawn Avenue to Payran Street, cross the Payran Bridge, and from there connect to Lynch Creek Trail on the eastern side of the River.

The speaker suggested the City should concentrate on building higher density housing options near the SMART train station, on sites with greater mobility options.

Response: Comment noted.

Speaker 16: Mr. McDonald

The speaker opined that traffic on Payran Street is at a “crisis” level and it has become used as a cross-town connector, with large trucks, buses and regular speeding, and that posting a radar sign near Graylawn has never worked to slow down traffic speeds.

Response: Payran Street is designated as an arterial street by the City’s General Plan Street Classifications Diagram. Please see Master Responses to Comments on Traffic, generally and specific to increased traffic on Graylawn and Jess Avenues.

The speaker noted that cars parked along Graylawn Avenue have been vandalized.

Response: Comment noted.

The speaker questioned whether access to the project site could not be achieved via the new Rainier extension.

Response: As noted in the Alternatives chapter of the Draft EIR (page 18-3), the City’s current plans for the Rainier Cross-Town Connector indicates that no access from the Project site to the Rainier Connector is likely to be feasible. The financial and technical challenges associated with constructing an extension of Graylawn Avenue as a bridge/ramp that would extend through the Project site and ramp-up to an elevated intersection on the Rainier Cross-Town Connector are so substantial as to be considered remote and speculative, if not infeasible. For these reasons, access to the Project site via the Rainier Connector has not been further analyzed as part of this EIR.

Speaker 17: Ms. Schamach

The speaker noted that the Graylawn/Jess neighborhoods are great neighborhoods, but are already adversely affected by speeding traffic from the existing Oak Creek apartments.

Response: Please see Master Response to Comments on Traffic, specific to traffic on Graylawn Avenue and Jess Avenue. As indicated in that Master response, data for average vehicle speeds was collected at a mid-block location on Graylawn Avenue, between Payran Street and Jess Avenue, showing that the 85th percentile vehicle speeds on Graylawn Avenue exceed the 25-mph speed limit. A Traffic Calming Plan has been prepared for the Project (please see **Appendix A** to this document), to be implemented on Graylawn Avenue where traffic volumes are projected to exceed the City design standards for livable streets and where traffic speeds typically exceed 25 mph. The strategies presented within the Traffic Calming Plan are intended to be conceptual in nature and are not intended for immediate implementation without a community engagement process followed by detailed engineering design.

The speaker indicated that the neighborhood had not been adequately notified of this project.

Response: As far back as July of 2007, the City distributed a Notice of Preparation (“NOP”) of an EIR for a prior version of this Project. Publication of the NOP initiated a 30-day public review and comment period that began on July 11, 2007 and ended on August 9, 2007. The Notice of Preparation (NOP) advising that an EIR was to be prepared was sent to nearby neighbors and the State Clearinghouse for distribution to responsible and/or trustee state agencies. A public scoping meeting for the EIR was held on July 25, 2007 to gather initial oral comments. On March 1, 2018, the City released a Draft Environmental Impact Report (DEIR) for the Project. The DEIR was released for a 45-day public review period, which ended on April 16, 2018. Comments on the Draft EIR were accepted through to the City Council meeting of May 21, 2018. A Notice of Completion/Availability (NOC/NOA) of the Draft EIR and Public Hearing was published in the Argus Courier on March 1, 2018 and mailed notices were sent to residents and property owners within 500 feet of the subject property, to interested parties who previously requested notification, and to all who commented on the Notice of Preparation. The NOC/NOA was also filed with the State Clearinghouse and the

Sonoma County Clerk. Copies of the Draft EIR were made available at the Petaluma Library, the Community Center, City Hall, and digitally via the City's website. Additional hard copies and CDs of the documents have been made available for purchase by the public at the Planning Division.

The speaker indicated the Shasta Avenue Extension would provide a cut-across through the adjoining neighborhood.

Response: The likelihood that Shasta Avenue Extension would have created a new cut-through route through the neighborhood was addressed in the Draft EIR. However, please see Master Response to comment about Shasta Avenue Extension and At-Grade Rail Crossing that indicate the Revised Project now proposed by the applicant no longer proposes this roadway extension or at-grade rail crossing.

The speaker suggested that public access to the River would provide greater neighborhood access to vandals.

Response: Construction of a Class I multi-use bicycle/pedestrian path along the frontage of the Petaluma River is consistent with the City of Petaluma's General Plan 2025 Mobility Report recommendations and the Petaluma River Access and Enhancement Plan (River Plan).

Speaker 18: Ms. Wilson

The speaker addressed many of the same concerns as expressed in her written comments. These concerns include traffic along Graylawn and Jess Avenues, construction noise impacts, and flooding.

Response: Please see prior responses to Comment Letter Y in Chapter 5 of this document, submitted by this speaker on the same topics.

Speaker 19: Mr. Sarlot

The speaker noted a consensus among his neighbors regarding traffic concerns.

Response: Please see Master Responses to Comments on Traffic, generally and specific to traffic on Graylawn Avenue and Jess Avenue.

The speaker requested that no new entrance should be constructed via Shasta Avenue.

Response: Please see Master Response to comment about Shasta Avenue Extension and At-Grade Rail Crossing, indicating that the Revised Project now proposed by the applicant no longer proposes this roadway extension or at-grade rail crossing.

The speaker noted that he and other neighbors are precluded from walking on the trail next to the Oak Creek Apartments.

Response: Please see Responses to similar comments made by Speaker 8 and Speaker 15, above.

Speaker 20: Mr. Terrell

The speaker requested that the Council please consider the traffic impacts of the project, and the science-based concerns raised in the comments of Ms. Kull (Speaker #8 and Comment Letters F and K).

Response: Please see Master Responses to Comments on Flooding, as well as individual responses to comments from Ms. Kull in Letters F and K, and Speaker #8.

The speaker suggested that EIR consultants can be paid to give any answers that are desired.

Response: As noted in the Introduction chapter of the Draft EIR, this Environmental Impact Report (EIR) has been prepared by the City of Petaluma in compliance with the provisions of the California Environmental Quality Act (CEQA). The City of Petaluma is the lead agency responsible for conducting the environmental review before deciding whether to approve the Project. The EIR is

intended as an informational document to inform City of Petaluma decision-makers, other responsible public agencies and the public of the potentially significant environmental impacts of the Project, identify possible ways to minimize those significant impacts, and to analyze reasonable alternatives to the Project. Before any discretionary approvals may be granted for the proposed Project, the City of Petaluma must certify the EIR as adequate, accurate and objective. The consultants who helped prepare this EIR have done so on behalf of the City of Petaluma, and at City staff's direction and supervision. They have been paid for these services by the City, using funds provided by the applicant and deposited into an account for this project.

Speaker 21: Ms. Cook

The speaker expressed concern about local neighborhood traffic, indicating that children play in the street.

Response: Please see Master Response to Comments on Traffic, generally and specific to increased traffic on Graylawn Avenue and Jess Avenue.

Councilmember Healy

1. The Councilmember questioned whether Graylawn Avenue was accurately described as a Residential Roadway pursuant to the City of Petaluma Street Standards as defined in the City of Petaluma Department of Engineering's Street Design and Construction Standards & Specifications of 1999, and whether these standards remain applicable.

Response: As noted in the Draft EIR, the City's roadway design standards as derived from the Department of Engineering's Street Design and Construction Standards & Specifications of 1999 and further defined in the Petaluma 2025 Mobility Report are not CEQA thresholds. The Draft EIR did not use these standards to identify any CEQA-related environmental impacts. Rather, these design standards provide a relative means of measuring the qualitative effect of increased vehicle traffic on the street environment and adjacent residential uses. Exceeding this design standard indicates that consideration of traffic calming measures to improve and enhance the livability of the adjacent neighborhood should be considered. The applicant has voluntarily agreed to implement a Traffic Calming Plan as part of the Revised Project to address increased traffic on Graylawn and Jess Avenues (see Appendix A). The strategies presented within the Traffic Calming Plan are intended to be conceptual in nature and are not intended for immediate implementation without a community engagement process followed by detailed engineering design. The applicant shall coordinate with City Public Works staff on the preferred Traffic Calming approach and design (anticipated to be similar in nature to Concept 3 as shown in the draft Traffic Calming Plan of Appendix A), and the preferred Traffic Calming Plan shall be shown on the plan set for SPAR review. As part of the SPAR process, the Planning Commission will review and consider approval of a final Traffic Calming Plan, specifically determining which traffic calming measures will ultimately be implemented. The Public Improvement Plan set for the Revised Project shall include the final Traffic Calming Plan.

2. The Councilmember questioned the practicality of certain provisions of the 1982 PUD for the Oak Creek Apartments. Specifically, the Councilmember noted the infeasibility of the PUD provisions that, "All major accesses to future developments in the remaining vacant property in the vicinity of the project [i.e., APN - 009] shall be from the Rainier Avenue extension or other new public street, rather than to streets to the south such as Graylawn Avenue and Burlington Drive." The Councilmember noted that an at-grade rail crossing to the west was unlikely to be accepted by the CPUC and that a connection to the planned Rainier Crossing elevated bridge was identified in the Draft EIR as infeasible.

Response: Please see Master Response to comment about Shasta Avenue Extension and At-Grade Rail Crossing, indicating that the Revised Project now proposed by the applicant no longer proposes this roadway extension or at-grade rail crossing. This decision by the applicant not to pursue the at-grade crossing is at least partly due in recognition of CPUC staff's repeated statements that such a

rail crossing would not be supported. The Alternatives chapter of the Draft EIR does indicate that, “The financial and technical challenges associated with constructing an extension of Graylawn Avenue as a bridge-ramp that would extend through the Project site and ramp-up to an intersection on the Rainier Cross-Town Connector are so substantial as to be considered remote and speculative, if not infeasible. For these reasons, access to the Project site via the Rainier Connector has not been further analyzed as part of this EIR.”

3. The Councilmember noted that this project has been under consideration for more than 10 years, and that the City’s Housing Element identifies the site as a housing opportunity site for 282 residential units.

Response: The City distributed the initial Notice of Preparation (“NOP”) for this EIR in July of 2007, more than 10 years ago. As was identified in the Draft EIR, the City of Petaluma’s 2015-2023 Housing Element does identify the Sid Commons project site as Residential Land Inventory Opportunity Site #15. Per the Housing Element, “the site exhibits an estimated housing potential of 282 units, with floodplain, wetland and noise environmental constraints.” The Land Inventory of Opportunity Sites is intended to showcase the range and number of housing units that might be possible. The maximum number of units possible within the 8 to 18.0 units to the net acre range was thought to be 282 units (the actual number being 278). The Housing Element Opportunity Site list is not meant as a guarantee that each site would develop to its maximum density. As the table notes, the site exhibits environmental constraints. The purpose is to show that the City contains more than sufficient area to accommodate its Regional Housing Need (while also emphasizing that getting affordable housing constructed, given the associated costs and State action to dissolve redevelopment agencies, and federal and state actions to cut back affordable housing programs, is anticipated to be highly unlikely).

Councilmember (now Mayor) Barrett

1. The Councilmember responded to the Draft EIR’s identification of the site as a residential Opportunity Site with an estimated housing potential of 282 units, suggesting that the Housing Element was wrong, that the original Project was too dense, and that the Draft EIR could not support such density of development.

Response: The Councilmember’s comments on the accuracy or correctness of the Housing Element do not pertain to the accuracy of the Draft EIR and no response to that comment is provided. The Draft EIR does identify a number of potentially significant impacts associated with the original Project, including a number of impacts that were found to be significant and unavoidable.

2. The Councilmember suggested that development of Parcel -006 such as presented in the Draft EIR’s Alternative #2 was the only viable option. All other options violate the 1982 PUD provisions, particularly those that restrict major accesses to future developments from relying on streets to the south, such as Graylawn Avenue and Burlington Drive.

Response: Alternative #2 was specifically included in the Draft EIR because that property was not part of the prior 1982 Oak Creek Apartment project PUD, and therefore is not affected by that PUD’s provisions or requirements. At a maximum density of 18 units per acre under current zoning standards, the 4.39-acre site at APN-006 could accommodate as many as 79 new residential units. The Draft EIR also notes that the staff report for the 1982 PUD provides that, “the remaining approximately 11.73 net acres with development potential at APN-009 is to remain vacant until a future rezoning occurs.” The Project application includes a proposed Amendment to the 1982 Oak Creek Apartments PUD that would remove the northern portion of the Project site (the vacant APN - 009) from the Oak Creek Apartment PUD and eliminate or modify conditions from the original PUD approval through a rezoning of that property.

3. The Councilmember stated that comments provided by Ms. Kull (Speaker #8 and Letters F and K) were very clear on the environmental implications related to flooding and hydrology associated with development of

the site. The Councilmember also indicated that if cumulative up-stream detention on properties not under the jurisdiction of the City does not occur, then terraced grading on this or other sites does not work.

Response: Please see Master Responses to Comments on Flooding, specific to the hydrology-related pros and cons of River terracing and the project-specific effects on flooding. As indicated in these Master Responses, localized terraced grading to increase the River channel capacity does achieve localized reductions in upstream water surface elevations, but the full benefits of the General Plan's flood control program will not be fully achieved without commensurate upstream detention projects to reduce flood flows. Achieving the more substantial increased detention capacity needed to meet the General Plan goals will require increased coordination and cooperation with Sonoma County and the Sonoma County Water Agency. The Project site is in the downstream segment of the river, and can only implement the river terracing component of the current City General Plan policy direction.

The Revised Project's terraced grading plan would result in upstream reductions in water surface elevations under 100-year flood conditions and commensurate reductions in 100-year floodplain boundaries upstream and adjacent to the site, and slight increases in water surface elevations and less than significant additions to the current 100-year floodplain boundaries downstream of the site.

4. The Councilmember stated that increased sedimentation of the River is slowing down the River's flood flows and that the effects of increased sedimentation must be analyzed in this EIR.

Response: Please see Master Response to Comments on Flooding specific to Petaluma River sedimentation.

5. The Councilmember indicated that the Project site provides for recharge of runoff under current conditions (which would be lost if the site were developed) and calls for loss of wetlands.

Response: Please see Master Responses regarding Flooding specific to increased runoff, and Master response to Comments on Impacts to Wetlands and Riparian Habitat.

6. The Councilmember remarked that the traffic analysis presented in the Draft EIR does not meet people's understanding of reality.

Response: Please see Master Responses regarding Traffic, generally and specific to the accuracy and applicability of traffic counts and the accuracy of the trip generation rates.

7. The Councilmember questioned whether the noise analysis presented in the Draft EIR would preclude homes from having operable windows.

Response: Please see Master Response to Comments on Noise, specific to train noise. As indicated in that Master Response, train-related noise measurements taken at the site in May 2019 demonstrate that a setback of approximately 30 feet from the rail centerline would satisfy land use compatibility standards of the General Plan for "conditionally acceptable" noise levels at multi-family residential uses. The Revised Project includes a 54-foot setback from the rail centerline for all proposed residential structures, satisfying this General Plan policy noise threshold. The "conditionally acceptable" noise level requires noise control treatments (i.e., sound rated windows and doors, sound-rated wall construction, acoustical caulking, protected ventilation openings, stucco siding, thicker walls, bedroom orientation, etc.) capable of achieving interior noise levels of 45 dBA or lower, but does not require inoperable windows.

8. The Councilmember indicated that public access to the River was a significant issue, and that this topic was not addressed in the Draft EIR.

Response: The Draft EIR Project Description and the Transportation chapter describe the proposed publicly accessible pedestrian/bike path to be constructed along the River frontage and extending from the existing path's terminus at the Oak Creek Apartments to the northwesterly Project site

boundary (east of the SMART rail tracks). Pursuant to the Revised Project, a small branch of the trail leads to the River edge. The project applicant and Staff intend for this trail to be open and available to the public.

9. The Councilmember questioned the timing of traffic counts conducted for the EIR, and noted the dates of these counts as being quite old.

Response: Please see Master Responses regarding Traffic, generally and specific to the accuracy and applicability of traffic counts.

Councilmember Miller

1. The Councilmember questioned the timing of traffic counts as presented in the Draft EIR, and questioned whether they accurately accounted for existing levels of traffic.

Response: Please see Master Response to Comment on Traffic specific to the accuracy and applicability of traffic counts, including information about the more recently conducted 2019 traffic counts on Payran Street and Graylawn Avenue.

2. The Councilmember expressed concern about project-generated traffic on Payran Street, specifically noting the high volume of traffic at East Washington Street.

Response: Please see Master Response to Comments on Traffic, generally and specific to the accuracy and applicability of traffic counts. New traffic volume and traffic speed data was collected in January and March of 2019 at four intersections including Payran Street/East Washington Street. The 2019 traffic volumes at the Payran Street/East Washington Street intersection show only a slight increase in traffic volumes during the AM peak hour when compared to information from the 2015 counts as presented in the Draft EIR, with a difference of only a 2 percent increase. This minor increase in background traffic would not change the LOS analysis for this intersection as presented in the Draft EIR.

3. The Councilmember questioned how many existing homes are on Graylawn and Bernice Court, and indicated that the neighborhood cannot double in size with the same existing access.

Response: Based on a count of rooftops from aerial imagery, there are 125 existing single-family residential homes and 76 apartments at the Oak Creek Apartments, all located north of Payran Street and between the SMART tracks and the Petaluma River, for 201 total existing dwelling units in this neighborhood. The Revised Project (at 205 units) represents a near doubling of the number of residential units to this neighborhood.

Access to this neighborhood is limited to intersections on Payran Street at Graylawn Avenue and Jess Avenue, although 13 of these single-family homes front directly onto Payran Street and likely contribute little traffic to either Graylawn or Jess Avenue. Recent traffic volume data was collected on Graylawn and Jess Avenue in 2019. Based on these 2019 traffic counts, the 3-day average daily two-way traffic (ADT) on Graylawn Avenue was 1,142 vehicles per day, and the 3-day average ADT on Jess Avenue was 419 vehicles per day (see Chapter 4 of this documents, Table 4-6), for a total of 1,561 ADT. Using trip rates from the ITE 10th Edition (see further discussion Master Response to Comments specific to the accuracy of trip generation rates) the 205-unit Revised Project would generate approximately 1,591 ADT. As further analyzed in the Master Response to comments specific to increased ADT on Graylawn Avenue and Jess Avenue, the addition of traffic from the Revised Project would cause traffic levels on Graylawn to reach approximately 2,510 ADT, thus exceeding the City's local street standard of 2,000 ADT. Traffic generated by the Revised Project would increase ADT on Jess Avenue by 223 ADT, to a total of 642 ADT, less than the City local street standard. With this increase in traffic, the intersection at Payran/Graylawn is projected to continue to operate at level of service B in the AM peak hour and LOS C conditions in the PM peak hour.

4. The Councilmember expressed the opinion that the original Project was too big and that its traffic impacts were too great, but also indicated that the City needs additional housing. Perhaps an alternative development proposal more similar to Draft EIR Alternatives #3 or #4 may be more acceptable.

Response: Please see Chapter 2 of this document, which describes the Revised Project now proposed by the applicant, proposing a reduction in dwelling units from 278 units under the original Project, to 205 units under the Revised Project.

Councilmember King

1. The Councilmember explained that the City's requirements for public notice extended to properties within 500 feet of the project boundaries, but that the Planning Commission was considering revisions to that requirement that would extend the noticing requirements and require additional signage.

Response: The Councilmember did not raise a question or comment about CEQA, and there is no response to this comment. The Planning staff complied with all requirements for public notice for the Draft EIR and will comply with all current requirements for noticing of the Final EIR and public hearings on the project merits.

2. The Councilmember noted the requirement that all comments made during the public review process must have a response as part of the Final EIR.

Response: This Response to Comment document/Final EIR includes Master Responses to several comments made repeatedly throughout the public review process, individual responses to each letter or e-mail correspondence received, and responses to all comments made during the public hearing process for commenting on the Draft EIR.

3. The Councilmember expressed his opinion that the Shasta Avenue Extension and at-grade rail crossing will not occur and that the original Project's 278 units were too many, and wondered why this project was studied knowing these realities.

Response: As was noted in the Draft EIR (page 3-29), City staff had several concerns about the feasibility of the original Project as proposed, and repeatedly communicated those concerns to the applicant team during the project review and environmental review process. More specifically, staff had concerns about the feasibility of the Shasta Avenue Extension. Despite these concerns, staff is obligated to process the project application as proposed, and to conduct the environmental review as contained in the Draft EIR. Please see the Revised Project Description (Chapter 2 of this document) for the applicant's design response to these concerns, which now precludes the extension of Shasta Avenue and an at-grade crossing and reduces the unit count to 205 units.

4. The Councilmember indicated that he felt an updated traffic study was needed for the EIR, that traffic patterns in the city had changed since the latest traffic counts, and that the traffic implications of a smaller project should be looked at.

Response: Please see Master Response to Comments on Traffic, generally and specific to the accuracy and applicability of traffic counts, the accuracy of the trip generation rates and increased traffic on Graylawn and Jess Avenue, as well as the Master Response to Comment on the Shasta Avenue Extension and at-grade rail crossing.

5. The Councilmember expressed support of Ms. Kull's comments about needing an updated hydrology study that addresses the issue of increased sedimentation of the River, and the consequences of that increased sediment on flooding in the downtown area.

Response: Please see Master Response to Comments on Flooding specific to increased sedimentation of the River.

6. The Councilmember suggested that the traffic stress the original Project would place on Graylawn Avenue was too great for the neighborhood to bear.

Response: Please see Master Response to Comments on Traffic specific to traffic on Graylawn and Jess Avenue, as well as the Traffic Calming proposal included in Appendix A to this document.

(Then) Mayor Glass

1. The Mayor reminded the Council of the promises included in the 1982 PUD regarding development and access to the property, and noted that this was one of the most environmentally sensitive areas of the entire community.

Response: These comments did not address the adequacy or accuracy of the Draft EIR and therefore no response is provided.

2. The Mayor suggested that the design of the project should be more like townhomes, to create a better sense of neighborhood.

Response: These comments did not address the adequacy or accuracy of the Draft EIR and therefore no response is provided. Please see Chapter 2 of this document for a description of the Revised Project and its different conceptual architectural designs.

3. The Mayor agreed with other commenters that increased sedimentation and lack of dredging of the River is a substantial concern, and that the implications of increased sedimentation need to be quantified.

Response: Please see Master Response to Comments on Flooding specific to increased sedimentation of the River.

4. The Mayor concluded by suggesting the applicant return with a different project that the Council might be able to accept, perhaps more like one of the EIR Alternatives. The Mayor also requested that staff return with a more current traffic study of such a different project.

Response: Please see Chapter 2 of this document for a description of the Revised Project. Also, please see Master Response to comments on Traffic, generally and specific to the accuracy and applicability of traffic counts, the accuracy of the trip generation rates, and about increased traffic on Graylawn and Jess Avenues. These Master Responses provide a thorough review and analysis of the Revised Project's impacts on traffic.

Revisions to the Draft EIR

Introduction

Revisions and Corrections to the Draft EIR

The following chapter presents corrections, modifications and clarifications to text, tables and exhibits as presented in the Draft EIR. These changes and corrections have been initiated by City of Petaluma staff (as Lead Agency), and/or have been made in response to public comments received on the Draft EIR. Changes include revisions warranted or required to ensure accuracy and clarity of the environmental analysis. These changes made to the Draft EIR constitute information that clarifies or amplifies, or makes insignificant modifications to the adequate Draft EIR (see CEQA Guidelines § 15088.5b). As such, the following changes do not require recirculation of the Draft EIR.

As indicated in the Introduction to this document, the entirety of the Sid Commons Apartment Project Final EIR consists of the Draft EIR and its Appendices, and this Response to Comments document. Thus, changes to the Draft EIR presented below supersede the corresponding original text of the Draft EIR. Throughout this chapter, newly added text is shown in double underline format, and deleted text is shown in ~~strikeout~~ format. Changes are listed in the order in which they appeared in the Draft EIR.

Revisions to Mitigation Measures based on Revised Project

The Project applicant has now proposed a Revised Project that is different from the original Project. Chapter 2 of this document provides a brief summary of the original Project and a description of those modifications to the original Project now proposed pursuant to this Revised Project. Chapter 3 of this document provides an assessment of the Revised Project's environmental impacts, including an issue-by-issue comparison of potential impacts of the original Project that are now avoided or reduced in extent based on the changes and modifications incorporated into the Revised Project. The Revised Project and the environmental analysis of the Revised Project are not considered changes or revisions to the Draft EIR. However, for purposes of clarity, all changes or revisions to mitigation measures from the Draft EIR that have been made in response to the Revised Project and its environmental analysis are presented in a separate portion of this chapter.

Revisions and Corrections to the Draft EIR

Throughout

The Draft EIR included numerous references to the number of apartment units that could be constructed at the site, such that resulting vehicle trips generated by those units would not exceed the City's local Residential Road Street Standard of 2,000 ADTs on Graylawn Avenue. That number of apartment units was calculated by subtracting traffic already using Graylawn Avenue (or 954 ADTs, based on 2015 traffic counts) from the 2,000 ADT street standard, and arriving at a remaining daily trip capacity of 1,046 ADTs on Graylawn Avenue. Using a generalized ITE 9th Edition "fitted curve" trip generation rate of approximately 7 daily trips per unit, the 1,046 ADTs of remaining roadway capacity was calculated to be equal to the number of daily tips that would be generated by a 149-unit apartment project.

However, a more precise “fitted curve” trip generation rate for an apartment project of this size should have been 6.88 daily tips per units.¹ Using the more precise fitted curve trip generation rate of 6.88 daily trips per unit, the 1,046 ADTs of remaining roadway capacity should have been calculated as being equal to the number of daily tips that would be generated by a 152-unit apartment project.

All Draft EIR references to a 149-unit apartment project as not exceeding the City’s local Residential Road Street Standard of 2,000 ADTs on Graylawn Avenue instead should have more accurately referenced a 152-unit apartment project.

Using more current (May 2019) traffic count data, traffic currently using Graylawn Avenue is 1,142 ADTs. Subtracting these 1,142 ADTs now using Graylawn Avenue from the 2,000 ADT street standard yields a current remaining daily trip capacity of 858 ADTs on Graylawn Avenue. The 858 ADTs of currently remaining roadway capacity is now calculated as being equal to the number of daily tips that would be generated by a smaller, 108-unit apartment project, using a more precise fitted curve trip generation rate of 6.94 daily trips per unit (see also the Revisions to the Alternatives Chapter of the Draft EIR, below).

Chapter 3: Project Description

Figures 3-7 and 3-9:

Both of these figures have outdated legends regarding the source of flood boundaries, and should have matched the legend shown on Figure 3-11 of the Draft EIR. Corrected legend notes for both of these figures are revised as follows. Although the legend notes incorrectly referred to older and out-of-date FIRM maps, the actual boundaries shown in these figures does reflect data from the correct, more recent sources indicated below.

- (dashed blue line): Existing Condition 100-Year Flood Boundary –reference FIRM 06097CO982G, Map revised 10/2/2015, and FIRM 06097CO894F, Map revised 02/19/2014
- (dashed green line): Proposed Condition 100-Year Flood Boundary (Reference Sid Commons Hydraulic Evaluation memo, dated 4/22/2017

Chapter 6: Biological Resources

Figures 6-6 and 6-9:

Both of these figures have minor errors regarding the status of tree removal pursuant to the original Project. Since both of these figures are substantially revised pursuant to the Revised Project (see Figure 3-1 of this document), these figures are not updated, but the corrections are noted below.

- The small tree shown as a protected oak to be removed and located within the original Project’s parking area (Tree #78) is not a protected oak, but rather a non-protected box elder located outside of the River Corridor Buffer Zone
- Tree #85 was mislabeled and should be Tree #86, and Tree #86 is mislabeled and should be Tree #85. Trees #86 and #82 (located within the Graylawn cul-de-sac) were incorrectly identified as being removed pursuant to the original Project

Page 6-45, Mitigation Measure Bio-4

Mitigation Measure Bio-4, Compensation for Seasonal Wetlands Fill: The Project applicant shall provide on-site compensatory mitigation sufficient to achieve a no-net-loss standard, subject to

¹ The ITE fitted curve trip generation rates indicate a gradually increasing number of trips per units, as the total number of units within a project decreases. Alternatively, these trips rates suggest a lower trip rate per unit as residential densities increase.

additional requirements of the permitting agencies. Compensatory mitigation shall be achieved through creation, restoration and enhancement of wetland habitat acreage at appropriate locations within the Project site. The newly created, restored or enhanced wetlands shall provide higher quality wetlands habitat value than the low value habitat lost as a result of Project fill and terrace grading.

- a) Final site plans should seek to avoid and retain wetland features where feasible.
- b) Compensatory wetland habitat shall ensure no net loss of habitat functions and values.
- c) Compensatory ratios shall be based on site-specific information and determined through coordination with the Corps and RWQCB.
- d) A Restoration and Monitoring plan for the compensatory wetlands shall be developed and implemented by the applicant. The Restoration and Monitoring Plan shall describe how the new wetlands shall be created and monitored over a minimum establishment period of five years.

Chapter 7: Cultural Resources

Page 7-7, fourth full paragraph:

In response to these contacts with Native American representatives, Ms. Sanchez of the NAHC replied to the WSA letter on November 8, 2007, stating that, "a record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area." Of the other efforts to contact Native American representative (including Ya-Ka-Ama Porno, Coast Miwok, Wappo; Kathleen Smith Porno, Coast Miwok; and Greg Sarris of the Federated Indians of Graton Rancheria). WSA received either no comments, or a response that they were not aware of any sacred lands or cultural resources in the area from all but the Federated Indians of Graton Rancheria. The Federated Indians of Graton Rancheria requested consultation in December of 2007 and consultation between the City and Federated Indians of Graton Rancheria occurred in January of 2008. The tribe asked that the qualified archaeological monitor shall be from the Federated Indians of Graton Rancheria's list of qualified archaeologists who have also demonstrated the ability to work cooperatively with the Tribe."

Page 7-14, Mitigation Measure 7-2:

Mitigation Measure Cultural-2: Discovery of Unknown Archaeological and Tribal Resources. To reduce potential impacts on prehistoric site deposits and or Tribal cultural resources that may be discovered during construction:

- a) The applicant shall retain the services of a qualified archaeological consultant approved by the City of Petaluma and from the Federated Indians of Graton Rancheria's list of qualified archaeologists who have also demonstrated the ability to work cooperatively with the Tribe, to monitor ground-disturbing activity near the Petaluma River; that is during the river terrace grading work. The archeologist shall monitor ground-disturbing activities according to a schedule agreed upon by the archeological consultant and the City of Petaluma. The monitor need only be present during activities that could affect significant archeological deposits or Tribal cultural resources. After considering the types of project activities and the probabilities of encountering a significant archaeological deposit or Tribal cultural resource, the City and the archaeologist shall adjust the monitoring frequency accordingly, or implement a cessation of the monitoring schedule altogether.
- b) If a concentration of artifacts, ~~or~~ cultural soils or Tribal cultural resources is encountered during construction anywhere on-site, all soil-disturbing activities within 100 feet of the ~~deposit~~

discovery shall cease. The archaeological monitor shall have the authority to stop work and temporarily redirect crews and heavy equipment until the ~~deposit~~ resource is evaluated. The archaeological monitor shall immediately notify the City of Petaluma Planning Division of resources encountered. The archeological monitor shall, after making a reasonable effort to assess the identity, integrity and significance of the encountered resource, ~~archaeological deposit~~, present the findings of this assessment to the City and provide treatment recommendations.

Chapter 8: Geology

Page 8-14, Mitigation Measure Geo-2B

Mitigation Measure Geo-2B, Incorporation of Geotechnical Investigation Recommendations: Consistent with Chapter 18 of the Petaluma Building Code requirements, recommendations included in the RGH Consultants' Geotechnical Engineering Report Update for Sid Commons (January 20, 2015) regarding foundation and structural design measures shall be incorporated in final designs for each structure, contingent upon concurrence by the City's Engineer and Chief Building Official. To ensure that appropriate construction techniques are incorporated, the ~~City's Project's~~ Geotechnical Engineer shall inspect the construction work and certify to the City, prior to issuance of a certificate of occupancy, that all improvements have been constructed in accordance with the approved Geotechnical Investigation specifications.

Chapter 10: Hazards and Hazardous Materials

Page 10-6, last paragraph:

Hazardous materials and contaminants in the environment are locally regulated through the Sonoma County ~~Environmental Health Department, Environmental Health & Safety Programs Division (SMCEHD)~~ or the Sonoma County Department of Emergency Services. These agencies work in conjunction with the Sonoma County Permit and Resource Management Department to establish compliance with laws regulating the storage, use and disposal of hazardous materials. First responders to hazardous material emergencies for the area could include the Petaluma Fire Department, with a station at 198 D Street. Hazardous material specialists such as the Sonoma County Hazardous Materials Response Team may also respond. State law requires that first responders have a minimum of 40 hours of training in accordance with the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) standard. The Sonoma County ~~Health Department's~~ Environmental Health and Safety Programs ~~Division~~ administer the Local Oversight Program, the Septic Tank/Chemical Toilet Waste Pumping & Disposal Program and the Stormwater Management Program.

Page 10-10:

Based on DTSC comments on the Draft EIR, the following changes are made to Mitigation Measure Haz-1A, and an additional mitigation measure (Haz-1B) is added.

Mitigation Measure Haz-1A, Soil Testing and Regulatory Compliance: Prior to issuance of building or grading permits, the project applicant shall conduct a soil testing program to identify the potential for agricultural chemicals, agriculture-related petroleum hydrocarbon spills, lead-based paint or elevated levels of contaminants near the rail tracks to be present in the soils at levels exceeding recommended health screening levels. Should any ~~pesticide~~-impacted soil be discovered that exceeds human health screening levels for residential soil as noted in DTSC's HERO HHRA Note 3 criteria ~~California Human Health Screening Levels (CHHSLs)~~ and/or Environmental Screening Levels

(ESLs), such soils shall be excavated and removed for appropriate off-site disposal prior to development pursuant to existing regulatory requirements.

Mitigation Measure Haz-1B, Discovery of Unknown Contaminants: If unknown contamination, underground tanks, containers or stained or odorous soils are discovered during construction activities, appropriate investigation, sampling and comparison of data collected with health-based screening levels and/or consultation with a regulatory oversight agency shall be conducted.

Page 10-15:

Based on the recommendations of the City of Petaluma Fire Marshal, the following Recommendation is added to this EIR.

Recommendation Haz-7, EVA Design: To ensure that the Bernice Court EVA is continuously available for emergency use, the EVA connection at Bernice Court shall include design measures including, but not limited to bollards, red curb or red pavement striping, no-parking signage, etc., intended to prohibit parking and other obstructions at this EVA access. Final EVA design measures shall be subject to review and approval by the Fire Marshal.

Chapter 13: Noise

Page 13-6:

Existing Noise Conditions for Rail Traffic is hereby amended, based on May 2019 noise monitoring conducted at the Project site.

Rail Noise

The railroad tracks adjacent to the site are currently in operation by the Northwest Pacific Railroad Company, which renewed rail freight service between Lombard/Napa Junction and Windsor, California in 2011, after having been fully closed down since 1999. As a commercial freight service, the schedule of trains is not regular but ranges from three trips weekly, to up to three round-trip freight train operations per day along this route. ~~Train noise associated with this renewed freight service has not been measured at the Project site (the majority of current freight trains do not run past the Project site, but terminate at businesses south of the Project site). Calculations of the existing noise conditions associated with this train service has been estimated based on information from the North Coast Railroad Authority Freight Rail Project EIR. Sonoma Marin Area Rail Transit (SMART) commuter trains received authorization to begin full passenger train service on August 25, 2017. The schedule consists of 17 round trip diesel multiple unit trains (DMUs) each weekday and 5 round trip trains each weekend, running between the Sonoma County Airport north of Santa Rosa and San Rafael. Thus, 34 SMART trains pass the Project site each weekday. Although the noise measurements taken at the Project site do not reflect the passenger train service that began in 2017, analysis of the noise effects of expanded rail service along this line is provided in Impacts Noise-1 and Noise-2, later in this chapter of the EIR.~~

A noise monitoring survey was completed in May 2019 to quantify the current ambient noise levels produced by current rail operations (see **Appendix B** of this document). The 2019 noise monitoring survey included long-term measurements adjacent to the SMART corridor along the westerly boundary of the site, conducted from Wednesday, April 24 to Wednesday, May 1, 2019. The sound monitor was placed approximately 23 feet east of the centerline of the near set of tracks. During the noise monitoring survey, SMART train pass-bys occurred approximately 34 times per day during weekdays and approximately 10 times per day during weekends. SMART trains passed the site at speeds ranging from 21 to 26 mph. Heavy freight train pass-bys occurred on an infrequent basis, with

only one train on Thursday night (April 25) and two trains on Monday night (April 29). The freight train pass-bys were not observed, but the speed of freight train pass-bys is presumed to be relatively slow. The May 2019 noise level measurements concluded the following:

- Maximum instantaneous noise levels produced by SMART train pass-bys typically ranged from 80 to 90 dBA Lmax, and the freight train pass-bys generated maximum instantaneous noise levels of 90 to 100 dBA Lmax at 23 feet east of the centerline of the near set of tracks.
- The nighttime train events (both SMART and freight) contributed to higher average daily noise levels. The Community Noise Equivalent Level as measured at the noise monitor (located 23 feet east of the centerline of the near set of tracks) ranged from 62 to 67 dBA CNEL on weekdays, and from 58 to 63 dBA CNEL on weekends
- Based on the worst-case CNEL noise levels as measured during the survey, the 65-dBA CNEL noise contour was estimated to occur at approximately 30 feet from the center of the near set of railroad tracks.
- The 60 dBA CNEL “normally acceptable” noise level for outdoor uses in residential areas under current train noise conditions (both SMART and freight rail) is estimated to occur at approximately 60 feet from the center of the railroad tracks.

As a maximum or “worst-case” existing condition, it is assumed that three round-trip freight train operations pass by the Project site each day, serving commercial/industrial customers along the line. The maximum existing condition assumption is that two of these round-trip freight train operations occur along the length of the rail line (from Willits in Mendocino County to Lombard in Napa County), and an additional round-trip freight operation occurs between Santa Rosa and Lombard. The assumption is that two of these trains include 2 locomotives and approximately 60 cars, while one would include one locomotive and 10-25 cars.² Noise produced by the pass-bys of these trains can be calculated based on the following data, and the methodology documented in the Federal Transportation Administration (FTA) Guidance Manual as adopted by the Federal Railway Administration:³

- ~~Reference (or standardized) noise levels for each locomotive and rail car, at a distance of 50 feet from the center of the tracks, have been established by measurements to be 96 dB SEL for locomotives, and 85 dB SEL for rail cars.⁴~~
- ~~Using the reference noise levels and operations data, equations provided in the FTA Guidance Manual have been used to calculate hourly energy-averaged sound levels (Leq), which can then be converted to day/night average noise levels (Ldn).~~
- ~~Based on the Ldn noise exposure, the noise levels for pass-by trains at a distance of 50 feet from the tracks was then calculated.~~

The results of this calculation indicate that train pass-bys at a frequency of 3 round trips per day (or 6 pass-bys per day) could result in an Ldn of 61.6 dB at 50 feet from the tracks. Beyond 50 feet, Ldn levels would be less than 61.6 dB Ldn.

² Bollard Acoustical Consultants, Inc., Appendix H to the NCRA Rail Project EIR, *Environmental Noise Assessment NCRA RRD Freight Rail Project*, May 2008, page 1

³ Federal Transportation Administration, *Guidance Manual regarding Transit Noise and Vibration Impact Assessment*, April 1995/May 2006, Chapter 6

⁴ Bollard Acoustical, 2008, page 15

Page 13-13, Standards of Significance:

It had been industry standard and City of Petaluma practice to consider a project's impact as significant if it would expose persons to noise levels in excess of standards established in the General Plan or Noise Ordinance, or would expose persons to excessive groundborne vibration. However, the California Supreme Court holding in *California Building Industry Association v. Bay Area Air Quality Management District* (2015, 62 Cal. 4th 369), and subsequent October 2018 revisions to Appendix G of the CEQA Guidelines, the effects of the environment on the Project (i.e., exposure to excessive ambient noise or groundborne vibration levels) are not considered significant impacts under CEQA. This understanding of CEQA does not preclude the City of Petaluma's discretionary actions on projects from implementing noise or vibration standards established in the General Plan or Noise Ordinance, or other applicable standards of other agencies, as conditions of project approvals. Therefore, discussion of the Project's relationship to noise and vibrations standards is not removed from the Draft EIR, but instead re-cast as relevant informational analysis. Accordingly, the following changes are hereby made to the Draft EIR's Standards of Significance. Further, the City of Petaluma has not officially adopted a numeric threshold for evaluation of temporary increases in noise resulting from a project's construction activities. However, the construction noise thresholds used in the Draft EIR, which were derived from the Federal Transit Administration's criteria for construction noise impact, are different from those used in other recent City of Petaluma CEQA documents. These other recent City of Petaluma CEQA documents include the 2017 Davidon/Scott Ranch Revised Draft EIR, the Rainier Cross Town Connector EIR, the Petaluma Riverfront Development Project EIR and the Haystack Mixed-Use Project CEQA document. For consistency with these other CEQA documents certified by the City, the construction-period noise impact threshold is revised, as also indicated below.

Standards of Significance

In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines of October 2018 (including Appendix G), City of Petaluma plans, policies and/or guidelines, and agency and professional standards, the Project's impact would be considered significant if it would:

1. ~~Expose persons to, or~~ Generate a substantial temporary or permanent increase in ambient noise levels near the Project in excess of standards established in the local general plan or noise ordinance. As used in this EIR, this threshold is further defined as ~~exposing persons to, or~~ generating noise levels that would: ~~in excess of:~~
 - a) Cause unnecessary, excessive and annoying noise disturbances as defined in City of Petaluma Zoning Ordinance (i.e. Article 22, Performance Standards; Section 22-301), established as a permanent increase in ambient noise levels of 4 dBA or more, if the resulting noise level would exceed that described as normally acceptable for the affected land use; or
 - b) Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above existing noise levels without the Project. This threshold is further defined as exceeding the ambient noise environment by 5 dBA Leq for a period greater than one year. by the Federal Transit Administration's (FTA) construction noise impact criteria for residential land uses, which indicate a significant construction noise impact would occur during a one-hour period when noise exceeds 90 Leq (dBA), and over an 8-hour period when construction noise exceeds 80 Leq (dBA) during daytime hours.
2. ~~Expose persons to, or~~ Generation of excessive groundborne vibration or groundborne noise levels. As used in this EIR, this threshold is further defined as the ~~exposure of persons to, or~~ the generation of groundborne vibration or groundborne noise levels above 72 VdB, which is the

Category 2 (residential) impact threshold established by the Federal Transit Administration for transit projects;

3. Expose people residing or working in the Project area to excessive noise levels associated with airport operations.

Non-CEQA analysis is also provided in this EIR for information purposes and pursuant to the City of Petaluma's discretionary actions on the Project, and pursuant to noise or vibration standards established in the General Plan or Noise Ordinance, or other applicable standards of other agencies. These applicable standards include:

- 65 dBA CNEL for multi-family residential uses, as established pursuant to the Petaluma General Plan 2025,
- 60 dBA Ldn, as considered normally acceptable for outdoor use in residential areas by the Federal Transit Administration for transit projects; and
- 45 dB Ldn inside noise sensitive spaces, as established in the California Noise Insulation Standards found in CCR Title 24, which establishes requirements for new multi-family residential units, hotels and motels that may be subject to relatively high levels of transportation noise.

Page 13-14, Impact Noise-1:

The changes made to the EIR's Standards of Significance result in the following modifications to the analysis of Land Use Compatibility.

~~Noise 1:~~ The proposed Project ~~would~~ could expose new residents to reasonably foreseeable future train noise levels in excess of the standard of 65 dBA CNEL for multi-family residential uses as established pursuant to the Petaluma General Plan 2025, to noise levels that might exceed the 60 dBA Ldn threshold established by the FTA for outdoor use, and/or to the noise levels that may exceed the indoor noise standard of 45 dB Ldn s established in the California Noise Insulation Standards found in CCR Title 24. ~~in residential areas affected by transit projects. (Less than Significant with Mitigation)~~

Page 13-14:

Existing noise conditions at the site are amended based on May 2019 train noise monitoring, and predicted future train noise is established as a separate sub-section, as indicated below.

Existing Noise Conditions

Based on noise measurements collected at the Project site in 2008, freeway noise influenced the site and resulted in ~~existing~~ ambient noise levels of approximately 55 to 62 dB Ldn, lower than the 65-dBA CNEL levels considered to be "conditionally acceptable" for multi-family residential uses.

Train noise from the adjacent rail tracks also influences noise levels at the site. Based on noise levels as measured during the May 2019 monitoring, the 65-dBA CNEL "conditionally acceptable" noise contour resulting from train noise conditions (both SMART and freight rail) is estimated to occur at approximately 30 feet from the center of the near set of railroad tracks. The 60 dBA CNEL "normally acceptable" noise level for outdoor uses in residential areas under current train noise conditions (both SMART and freight rail) is estimated to occur at approximately 60 feet from the center of the railroad tracks.

Predicted Future Noise Conditions

Future traffic volumes on the nearby freeway are expected to increase in the future, but not to an extent that traffic noise levels at the site would exceed 65 dB CNEL. Future (2025) noise levels presented in the Petaluma General Plan indicate that future traffic noise levels at the Project site will be 60 to 65 dBA (Ldn), considered to be “conditionally acceptable” for multi-family residential uses.

~~Pass-by freight trains on the adjacent railroad tracks produce noise levels of approximately 62 dB Ldn at 50 feet from the tracks. Beyond 50 feet from the adjacent rail tracks, Ldn levels from freight trains are generally less than 62 dB Ldn. At these existing noise levels, those portions of the Project site located beyond approximately 50 feet from the rail tracks are currently considered “conditionally acceptable” for multi-family residential use (i.e., less than 65 dB Ldn) according to the City’s General Plan, and noise impacts on the Project from existing noise source are less than significant, provided that interior noise levels are maintained at levels of less than 45 dB Ldn. However, use of the adjacent rail tracks has now expanded to include passenger rail service associated with the Sonoma-Marin Area Rail Transit (SMART) commuter/passenger train operations. According to the Environmental Noise Assessment for the North Coast Railroad Authority (NCRA) Russian River Freight Rail Project, freight train traffic along the segment of rail adjacent to the Project site is expected to increase to a total of 6 trains per day (5 during daytime, and 1 at night), with up to 10 locomotives and 290 freight cars . . .~~

Page 13-15, third full paragraph:

This paragraph incorrectly references ~~Table 13-4~~, and is corrected to instead reference Table 13-5.

Page 13-16, Mitigation Measures and Resulting Level of Significance:

Based on recent train noise measurements, and revisions to thresholds of significance, the following are amendments to Mitigation Measures and Resulting Level of Significance as presented in the Draft EIR.

Mitigation Measures Policy-Based Recommendations

~~The following recommendation is intended to address City of Petaluma General Plan policies for “conditionally acceptable” noise levels for future multi-family residential uses; and to achieve “conditionally acceptable” noise levels for future residential uses, the following mitigation measure shall be implemented.~~

Recommendation Mitigation Measure Noise 1A – Ensure Achieve “Conditionally Acceptable” Noise Levels: ~~To achieve a “conditionally acceptable” noise environment, No residential structure should~~ shall be located closer than the calculated 65 dB CNEL contour. Based on existing rail noise levels, the 65-dBA CNEL noise contour is estimated to occur at approximately 30 feet from the center of the near set of railroad tracks. Based on potential future conditions (assuming increased freight rail traffic), the calculated 65 dB Ldn contour is estimated to be at 54 feet from the center of the near set of railroad tracks. The Project’s design shall move the residential building that is located at the northwesterly portion of the Project site inward from the rail line, such that it is no closer than and within a “conditionally acceptable” noise environment. No residential structure shall be located closer than the calculated 65 dB Ldn contour. The final design of the Project, to be reviewed at SPAR, should maintain a 54-foot setback from the center of the near set of railroad tracks.

The following recommendation is intended to address California Noise Insulation Standards as found in CCR Title 24 for acceptable indoor noise levels at new multi-family residential uses that may be subject to relatively high levels of transportation noise:

Recommendation Mitigation Measure Noise 1B - Noise Insulation: Prior to approval of building permits, a qualified acoustical consultant shall review final designs for floor plans and exterior elevations for construction of all residential buildings within the Project site. The design level acoustical report shall provide specific noise control treatment to achieve interior noise levels of 45 dBA or lower. The acoustical consultant shall identify and include on the plans and specifications for the Project, those specific noise insulation treatments (i.e., sound rated windows and doors, sound-rated wall construction, acoustical caulking, protected ventilation openings, stucco siding, thicker walls, bedroom orientation, etc.) that are to be applied.

The following recommendation is intended to address regulatory guidance of the Federal Transit Administration for normally acceptable noise levels at primary outdoor uses in residential areas affected by transit-related noise:

Recommendation Mitigation Measure Noise 1C – Ensure Normally Acceptable Outdoor Noise Exposure: ~~To achieve a “normally acceptable” noise environment, a~~ No primary outdoor use area (i.e., the swimming pool and courtyard or active play areas), should ~~shall~~ be located closer than the calculated 60 dB CNEL contour. Based on existing rail noise levels, the 60-dBA CNEL noise contour is estimated to occur at approximately 60 feet from the center of the near set of railroad tracks. Based on potential future conditions (assuming increased freight rail traffic), the calculated 60 dB Ldn contour is approximately 109 feet from the tracks. ~~The Project’s design shall not locate any outdoor use area closer than~~ The final design of the Project, to be reviewed at SPAR, shall not locate any primary outdoor use areas (i.e., the swimming pool and courtyard or active play areas) closer than 109 feet from the center of the near set of railroad tracks. Alternatively, the Revised Project’s final design should incorporate noise attenuation into the design of all primary outdoor use areas that may include a fence or wall measuring at least 6 feet high and subject to SPAR approval, or placing primary outdoor use areas on the opposite side of a residential structure from the rail line.

Resulting Level of Significance

Maintaining a setback from both the existing and the projected future 65 dB Ldn contour (at 54 feet) would effectively avoid inconsistencies with City General Plan policies for land use compatibility with community noise environments. Moving the most northerly residential building by only a few feet inward from the rail lines would reduce this impact to a level of less than significant, with little effect on the Project design. Similarly, incorporating setbacks or adding noise attenuation measures for primary outdoor use areas at the most northerly and most southerly buildings would reduce the exposure of these areas to below FTA regulatory guidance threshold levels.

Throughout the Project site, future noise levels from freeway traffic noise and rail noise are expected to reach between 60 and 65 dBA Ldn, being within the “conditionally acceptable” levels. Standard residential building construction methods are generally capable of achieving a 15 dB reduction from outdoor noise. To achieving the 45 dB interior noise threshold at locations where future noise levels are anticipated to exceed 60 dBA Ldn, additional noise insulation treatments (per Mitigation Measure Noise-1B) would be capable of reducing the anticipated noise conditions inside buildings to levels consistent with the California Noise Insulation Standards found in CCR Title 24. of less than significant.

Page 13-17, Impact Noise-2:

The changes made to the EIR’s Standards of Significance result in the following modifications to the analysis of Train Vibration.

~~Noise 2: The proposed Project would could expose new residents to reasonably foreseeable vibration levels in excess of 72 VdB re 1 μ inch/second, the threshold limits established by the FTA and FRA for subjective human reactions to ground-borne vibrations. (Less than Significant with Mitigation)~~

Page 13-18, third full paragraph:

As describing the original Project. This text is no longer applicable to the Revised Project, but a correction is noted below.

The Project proposes to develop new residential buildings along the westerly edge of the Project site, near the railroad tracks. The nearest proposed residential building is located in the furthest northwesterly portion of the development area, approximately 50 feet from the railroad tracks, and the most southerly building is also located within 100 feet of the rail tracks. These ~~This~~ residential buildings would be impacted by long-term, ground-borne freight train vibration. All other residential buildings at the site are a minimum of 100 feet from the railroad tracks, and would not be subject to adverse vibration levels.

Page 13-18, Mitigation Measures and Resulting Level of Significance:

Based on recent measurements of train vibrations and revisions to thresholds of significance, the following amendments are made to train vibration Mitigation Measures and Resulting Level of Significance as presented in the Draft EIR.

~~Mitigation Measures~~ Recommendations

To address the foreseeable freight train vibration impacts, the following mitigation measures are recommended.

Recommendation ~~Mitigation Measure~~ **Noise 2 - Avoidance/Vibration Attenuation Measures:** The Project ~~should~~ shall incorporate the following vibration avoidance or reduction strategies as part of its final design and/or construction.

- a) The Revised Project's proposed 54-foot residential set back from the centerline of the nearest set of rails more than adequately meets the FTA 75 VdB criteria for the "occasional" SMART train events that now occur and that is expected to occur in the future (i.e., between 30 and 70 SMART trains per day), and should be retained.
- b) The Revised Project's proposed 54-foot residential set back from the centerline of the rails is also adequate to meet the FTA 80 VdB criteria for the "infrequent" heavy freight rail traffic that now occurs, and that is expected to occur in the future. This 54-foot setback also accommodates an additional "penalty" threshold (down to the "occasional event" criteria of 75 VdB) to address the potential for longer duration and/or nighttime vibration events, and should be retained.
- c) To address an even more conservative vibration criterion as was applied in the NCRA Russian River Freight EIR and the Draft EIR, the City of Petaluma could consider an additional "penalty" criterion to meet the "frequent event" criteria of 72 VdB, which occurs at approximately 100 feet from the rail centerline. To meet this more stringent criterion, structural design measures could be incorporated into the design and construction of residential buildings located closer than 100 feet from the tracks, as necessary to reduce groundborne vibration to below the 72 VdB criteria. Special building methods can be incorporated to reduce groundborne vibration from being transmitted into project structures.

Either remove or relocate the residential building proposed at the northwesterly portion of the Project site to a different location, such that no residential unit is closer than 100 feet from the railroad tracks (i.e., outside of the vibration threshold contour); or

Potential methods for reducing groundborne vibration may include, but are not limited to: isolation of foundation and footings using resilient spring supports; supporting the building on elastomer pads similar to bridge bearing pads; or excavating soil between the vibration source and the project so that the vibration path is interrupted and thereby reducing the vibration levels before they enter the project's structures.

Resulting Level of Significance

Moving or relocating the northerly residential building that is proposed within the projected vibration threshold contour (within 100 feet) would effectively avoid the impact, but would affect the design and potentially the density of the proposed Project. Alternatively, incorporating special building methods into buildings within 100 feet of the tracks can feasibly reduce groundborne vibration from being transmitted into the structures to a less than significant level.

Page 13-23:

The changes made to the EIR's Standards of Significance for construction noise (now defined as exceeding the ambient noise environment by 5 dBA Leq for a period greater than one year) result in the following modifications to the analysis of construction noise, as follows.

Noise-4: Construction of the proposed Project would result in temporary or periodically significant noise impacts, especially where grading and construction activities are to be conducted in close proximity to existing and new sensitive receptors, specifically including the existing Oak Creek Apartments and neighbors along Bernice Court, Graylawn Avenue and Jesse Avenue. (Less than Significant with Mitigation Significant and Unavoidable)

This analysis uses criteria for of the Federal Transit Administration's (FTA) of construction noise impacts to residential land uses that are consistent with prior City of Petaluma CEQA documents to determine if a significant impact would occur. According to these FTA criteria, an adverse construction-period noise impact would occur if construction noise exceeds the ambient noise environment by 5 dBA Leq for a period greater than one year 90 dBA Leq during a one-hour period, ~~or if it exceeds 80 dBA LEQ over an 8-hour period during daytime hours.~~ Based on noise levels of various construction phases and sub-phases, peak noise generated by construction equipment could significantly affect existing adjacent or nearby development.

The increase in noise levels at nearby locations during construction would be temporary in nature and would not generate continuously high noise levels, although occasional single-event disturbances from construction are possible. The majority of construction activities would take place at a distance farther than 50 feet from existing residences to the south. In the later phases of construction (i.e., during interior building construction) noise levels are typically reduced due to the newly erected physical structures that interrupt noise transmission. Thus, the highest noise levels that would be experienced by adjacent sensitive receptors would only occur for a limited duration during construction activity. ~~However, the temporary or period impact when grading or construction activities occur within 100 feet of an existing residence would be significant.~~

Page 13-27, Mitigation Measure Noise-4A:

Mitigation Measure Noise-4A is amended to include the additional phasing considerations, as indicated below.

Mitigation Measure Noise 4E, Noise Barriers: The construction contractor shall erect temporary walls, sound curtains or other similar devices along the property lines adjacent to the existing Oak Creek Apartments and neighbors along Bernice Court and Graylawn Avenue, to shield these existing sensitive receptors from construction noise. To the extent feasible, the construction contractor shall prioritize construction of buildings nearest to Graylawn/Bernice Court during the earlier phases of construction, such that new buildings can serve as a noise barrier to dampen construction noise as the site develops.

Page 13-28:

Changes made to the EIR's Standards of Significance for construction noise result in the following modifications to the EIR conclusions regarding the Resulting Level of Significance post-mitigation.

With required conformance with the City of Petaluma Noise Ordinance and implementation of recommended mitigation measures, ~~the majority of construction period noise impacts would be reduced to a level of less than significant all reasonable and feasible noise attenuation strategies will be implemented.~~ The highest noise levels that would be experienced by adjacent sensitive receptors would only occur for a limited duration during construction activity. Not all construction activity associated with the Revised Project would occur in immediate proximity to adjacent neighbors, and construction that does occur adjacent to existing neighbors is unlikely to individually last for more than 1 year. With implementation of all mitigation measures as identified, the exposure of sensitive receptors to excessive noise during construction will be reduced to a less than significant level. However, the intensity and duration of construction activity will occur for a period of more than 1 year, and certain construction activities resulting in noise levels exceeding 90 dBA Leq are expected to occur as near as 30 feet from the nearest existing sensitive receptor. Mitigation Measures may not be able to be effectively attenuated to acceptable (i.e., 80 dBA) levels at these nearby residences with use of available noise reduction strategies, and construction noise effects on nearby neighbors is conservatively considered to be significant and unavoidable.

Chapter 14: Traffic & Circulation

Page 14-4, fourth full paragraph:

Near the Project site, Payran Street is a two-lane ~~arterial collector~~ roadway providing access to the residential neighborhood through which it passes. Sidewalks and on-street parking exist on the roadway. The roadway is signed as a Class III bike route where bicyclists share the roadway with vehicles. The shared use roadway is emphasized by the frequent "sharrow" striping located in the center of the travel way. A sharrow marking consists of two chevrons atop a bicycle image pointing in the direction of travel. The speed limit on this section of roadway is 25 MPH.

Page 14-73

The following revisions to Recommendation Transp- A reflect the more recent (May 2019) traffic counts, and the additions to Recommendation Transp-B reflect City staff additions for greater clarity and requirements.

Recommendation Transp-A, Reduce Revised Project Size to Fit Graylawn Capacity: If the Revised Project were to be reduced in size to approximately ~~149~~ 108 residential units, it would produce approximately ~~1,046~~ 858 daily trips, ~~78~~ 52 AM peak hour trips, and ~~100~~ 64 PM peak hour trips. This number of additional trips could be accommodated, in addition to the existing ~~954~~ 1,142 daily trips

currently on this roadway, such that the ADT would not exceed the City of Petaluma Department of Engineering's Street Standard Design.

Recommendation Transp-B, Introduce Traffic Calming and Enhance Livability along Graylawn Avenue: The Revised Project shall implement a Traffic Calming Plan, which may include bulb outs, street tree planting, pavement marking and other roadway livability improvements and traffic calming features to minimize conflicts with "livability" standards for local streets that exceed the 2,000 ADT design standard for this roadway. Prior to SPAR review at the Planning Commission, the applicant shall coordinate with City Public Works staff on the preferred Traffic Calming approach and design (anticipated to be similar in nature to Concept 3 as shown in the conceptual Traffic Calming Plan of Appendix A). The preferred Traffic Calming Plan shall be shown on the plan set for SPAR review. The Public Improvement Plan set for the Revised Project shall include the finalized Traffic Calming Plan.

Page 14-80, Mitigation Measure Transp-9C: At-Grade Rail Crossing Safety Measures at Payran Avenue:

Those improvements that would have been required pursuant to Mitigation Measure Transp-9C have already been made by SMART, and this measure is no longer required of the Revised Project

~~**Mitigation Measure Transp-9C: At-Grade Rail Crossing Safety Measures at Payran Avenue.** Prior to Improvement Plan approval, the Project Sponsor shall fund a detailed Engineering Study of the existing crossing to identify the most effective and appropriate warning devices applicable for this crossing. This study shall be completed under direction of the City of Petaluma and in coordination with SMART to implement the recommended improvements at this location, and to determine fair-share payments towards any additional improvements.~~

Page 14-82, Mitigation Measures:

Those improvements that would have been required pursuant to Mitigation Measure Transp-9A through 9-C have either already been made by SMART or are no longer required of the Revised Project

~~None needed. The mitigation measures identified above (measures MM Transp-9A through 9D, depending on feasibility of the Project's proposed rail crossing) would address standards applicable to accessibility to transit stops to and from the Project site.~~

Chapter 18: Alternatives

Page 18-18, Alternative #2 - Noise and Land Use Compatibility:

The City has determined that construction of a permanent non-permeable fence or wall along the length of the railroad tracks would not be aesthetically acceptable. The potential for a fence or wall has thus been removed from discussion of this Alternative.

Like the Project, Alternative #2 would expose new residents to reasonably foreseeable future train noise levels in excess of the 60 dBA Ldn threshold established by the FTA for outdoor use in residential areas affected by transit projects. Existing and future noise levels at the Alternative #2 site will be considered "conditionally acceptable" for multi-family residential uses. Consistent with Recommendation Mitigation Measure Noise-1A: Achieve "Conditionally Acceptable" Noise Levels and Noise-1B: Noise Insulation, the design of Alternative #2 would need to be no closer than 54 feet from the railroad tracks. ~~, or provide a non-permeable fence or wall along the length of the railroad tracks that provides a minimum of 5 dBA reduction in train noise.~~ Consistent with Recommendation Mitigation Measure Noise-1B, the design of new residential units shall provide specific noise insulation to achieve interior noise levels of 45 dBA or lower. Consistent with Recommendation Mitigation Measure Noise-1C, the location and design of primary outdoor use areas would need to

be set back by a distance of 109 feet from the centerline of the rail tracks. These measures would be capable of reducing anticipated noise conditions inside buildings ~~to a level of less than significant.~~

Page 18-19, Alternative #2 - Train Horn Noise:

The changes made to the EIR's Standards of Significance regarding the effects of the environment on the project result in the following modifications to the analysis of Train Vibration.

Recommendation Mitigation Measure Noise-1B (Noise Insulation) would apply to this Alternative, requiring specific noise control treatments to achieve interior noise levels of 45 dBA or lower e.g., sound rated windows and doors, sound-rated wall construction, acoustical caulking, protected ventilation openings, stucco siding, thicker walls, bedroom orientation, etc.). Implementation of this measure would reduce noise impacts from existing train horns. Recommendation Mitigation Measure Noise-1C (Outdoor Noise) would also apply to this Alternative, reducing noise impacts from existing train horns at primary outdoor use areas. ~~but not to a less than significant level~~

Page 18-19, Alternative #2 - Traffic:

As indicated in the description of Alternative #2, this alternative would only involve development of a portion of the Project site that is not subject to the 1982 PUD restrictions regarding use of Graylawn Avenue for access, and would be a substantially smaller development than the original Project. Using the ITE's "fitted curve" equation, ~~same trip generation rate as applied to the Project,~~ a 79-unit apartment project could be expected to generate approximately 600 ~~514~~ daily vehicle trips, 41 AM peak hour trips ~~and 49 PM peak hour trips~~. This represents approximately 33% ~~30%~~ of the trips assumed as generated by the original Project.

Page 18-35, Alternative #3A - Noise and Land Use Compatibility:

Like the Project, Alternative #3A would expose new residents to ambient noise levels of between 60 to 65 dBA Ldn (which is considered to be "conditionally acceptable" for ~~multi-family~~ single-family residential uses), and to reasonably foreseeable future train noise levels in excess of the 65 dBA Ldn ~~threshold~~ within approximately 54 feet of the rail tracks. Existing and future noise levels at the Alternative #3A site will be considered "conditionally acceptable" for single-family residential uses. Consistent with Recommendation Mitigation Measure Noise-1A: Achieve "Conditionally Acceptable" Noise Levels and Noise-1B: Noise Insulation, the design of Alternative #3A would need to place new homes no closer than 54 feet from the railroad tracks, and the design of new residential units would need to provide specific noise insulation to achieve interior noise levels of 45 dBA or lower. Consistent with Recommendation Mitigation Measure Noise-1C, the location and design of primary outdoor use areas (Swimming pool, courtyard and outdoor play areas) would need to be set back by a distance of 109 feet from the centerline of the rail tracks or adequately screened by a noise barrier. These measures would be capable of reducing anticipated noise conditions. ~~inside buildings to a level of less than significant~~

Page 18-42, Alternative #3B - Environmental Analysis:

Alternative #3B is, in many respects, similar to Alternative #3A. Both of these Alternatives include construction of 79 total new residential units (79 single-family homes under Alternative #3A, and 79 apartments or townhomes under Alternative #3B). Both of these alternatives would be developed on the same site as the Project, but Alternative #3B would potentially require less developable land than does the Project or Alternative #3A. As such, the environmental effects associated with Alternative #3B are, in most instances, similar to the effects of Alternative #3A. Both Alternative #3A and Alternative #3B do not include construction of the Project's proposed at-grade crossing of the rail tracks at the Shasta Avenue Extension.

Page 18-44, Alternative 3B - Traffic and Transportation:

Based on ITE trip generation rates, single-family residential land uses generate traffic at higher rates (i.e., at 9.57 daily trips per unit) than does multi-family residential land uses. The ITE “fitted curve” equation used to generate multi-family trip rates indicates that a 79-unit apartment or townhome project would likely generate traffic at a rate of approximately ~~6.5-7.6~~ 6.88-7 daily trips per unit, or 600 total daily trips (approximately ~~20%~~ 32% less daily trips than a 79-unit single-family residential development). Therefore, the daily trips and peak hour trips generated under Alternative #3B would be less than generated under Alternative #3A, and substantially less (approximately 33% fewer than 50%) than would be generated under the Project.

Page 18-46, Alternative #4 Description:

The following correction to the Draft EIR more precisely defines the number of apartment units that could be constructed at the site while remaining within the Design Standard capacity of Graylawn Avenue based on 2015 traffic counts (i.e., the change from 149 unit to 152 units). This change would similarly change multiple references throughout the Draft EIR to a 149-unit alternative. This relatively minor change would not substantially affect any of the analyses or conclusions of the Draft EIR.

This alternative is based on the overall development potential of the site that can be accommodated by the design capacity of Graylawn Avenue under the City’s “livable streets” standard. As indicated in the transportation chapter of this EIR, the Petaluma General Plan 2025 Mobility Report identifies Graylawn Avenue as a local residential road. Pursuant to the Street Standards for the City of Petaluma, local residential roadways are intended to carry up to a maximum of 2,000 average daily tips (ADTs), serving up to 200 dwellings. Based on 2015 data, Graylawn Avenue ~~currently~~ carried approximately 954 ADTs, and thus ~~had~~ had a maximum remaining capacity of 1,046 ADTs before exceeding the design standards. Using an ITE “fitted curve” trip generation rate, the 1,046 daily trips of remaining capacity on Graylawn Avenue equates to approximately a 152 unit ~~149~~-multi-family residential project (at a fitted curve rate of approximately 6.88-7 daily tips per unit). Based on May 2019 data, Graylawn Avenue currently carries approximately 1,142 ADTs, and thus has a maximum remaining capacity of 858 ADTs before exceeding the design standards. Using an ITE “fitted curve” trip generation rate, the 858 daily trips of remaining capacity on Graylawn Avenue equates to approximately a 108 unit multi-family residential project.

Page 18-60, Alternative #4 - Noise:

Noise due to the use and occupation of the site by new residences would not ~~is not~~ significantly increase or alter the existing noise environment.

Page 18-60, Alternative #4 - Noise and Land Use Compatibility:

Like the Project, Alternative #4 would expose new residents to ambient noise levels of between 60 to 65 dBA CNEL (which is considered to be “conditionally acceptable” for multi-family residential uses), and to reasonably foreseeable future train noise levels in excess of the 65 dBA CNEL threshold within approximately 54 feet of the rail tracks. Consistent with Recommendation Mitigation Measure Noise-1A: Achieve “Conditionally Acceptable” Noise Levels and Recommendation Noise-1B: Noise Insulation, the design of Alternative #4 would need to place new homes no closer than 54 feet from the railroad tracks, and the design of new residential units would need to provide specific noise insulation to achieve interior noise levels of 45 dBA or lower. Consistent with Recommendation Mitigation Measure Noise-1C, the location and design of primary outdoor use areas (Swimming pool, courtyard and outdoor play areas) would need to be set back by a distance of 109 feet from the centerline of the rail tracks or adequately screened by a noise barrier. These measures would be

capable of reducing anticipated noise conditions to levels consistent with City policies and standards.
~~inside buildings to a level of less than significant~~

Page 18-67, Environmentally Superior Alternative:

Alternative 4, inclusive of the river terrace, would avoid many of the Project's unavoidable impacts (primarily by not including the Shasta Avenue at-grade crossing), would reduce the level of impacts under all other environmental categories as compared to the Project (primarily due to the reduced density), and would realize a majority of the Project's objectives. Alternative #4 with terraced grading is superior to Alternative #4 without terraced grading. Without terraced grading at the Project site, construction of any new development on this river-frontage property would not be consistent with adopted citywide ordinances and General Plan policies, and would not reduce flooding and floodplain impacts to the greatest extent feasible. Without full terracing, substantial flood reductions in key areas such as the Industrial Avenue corridor, Corona and Capri Creek housing areas and at the Outlet Mall cannot be achieved.

Chapter 19: CEQA Conclusions

Page 19-1:

The changes made to the EIR's Standards of Significance for noise impacts result in the following modifications to the conclusions of Significant and Unavoidable Impacts of the project.

Summary of Significant Unavoidable Impacts

Based on the analysis presented in this EIR, the Project would result in the following environmental impacts that would be considered significant and unavoidable:

New Train Horns

~~The Project site as well as much of the surrounding neighborhood is exposed to the "severe impact zone" of noise from train warning horns at the existing Payran crossing. The noise from train warning horns at the Payran crossing is not attributable to the Project, but this existing noise would adversely affect new residents at the Project site. Additionally,~~ The Project's proposed extension of Shasta Avenue crossing would add another at-grade rail crossing. "Severe" train horn noise levels of greater than 60 dB Ldn associated with this new crossing would extend across the Project site and into adjacent neighborhoods on both the east and west sides of the railroad tracks. This new train warning horn noise would be a direct result of the Project's proposed at-grade rail crossing, would exceed FTA, FRA and City of Petaluma noise impact criteria and would be a significant effect of the Project. The implementation of a Quiet Zone at the Shasta Avenue crossing (as recommended pursuant to Mitigation Measure Noise-3) would significantly reduce train warning-horn noise exposure and the number of impacted people. However, the FRA has final jurisdiction over Quiet Zone applications, and neither the Project applicant nor the City of Petaluma can ensure that a Quiet Zone could be established at this crossing. Establishment of a Quiet Zone would help to reduce the frequency of warning horns at the Shasta Avenue crossing, but this measure would not mitigate noise exposure to a less than significant level. Quiet zones do not preclude the use of train horns at railroad crossings, but rather allows the train operator to use discretion in sounding horns when there is an apparent safety issue. No other mitigation measures that would reduce the impact to a less than significant level are known at this time. Therefore, this train horn impact to new residents at the Project site and to existing residents from the existing Payran crossing and to existing and new residents from the Project's proposed at-grade Shasta crossing is considered significant and unavoidable.

Construction Noise

Impact Noise-4: Construction activities associated with the Project would result in temporary or periodically significant noise impacts, especially where grading and construction activities are to be conducted in close proximity to existing and new sensitive receptors, specifically including the existing Oak Creek Apartments and neighbors along Bernice Court, Graylawn Avenue and Jesse Avenue. With required conformance with the City of Petaluma Noise Ordinance and implementation of Mitigation Measures Noise-4A through -4F, all reasonable and feasible noise attenuation strategies will be implemented. The highest noise levels that would be experienced by adjacent sensitive receptors would only occur for a limited duration during construction activity. Not all construction activity associated with the Revised Project would occur in immediate proximity to adjacent neighbors, and construction that does occur adjacent to existing neighbors is unlikely to individually last for more than 1 year. With implementation of all mitigation measures as identified, the exposure of sensitive receptors to excessive noise during construction will be reduced to a less than significant level. ~~The majority of construction period noise impacts would be reduced to a level of less than significant. However, the construction period is expected to occur for a period of more than 1 year (32 months), and certain construction activities resulting in noise levels exceeding 90 dBA Leq are expected to occur as near as 30 feet from the nearest existing sensitive receptor. Noise levels may not be able to be effectively attenuated to acceptable (i.e., 80 dBA) levels at these nearby residences with use of available noise reduction strategies, construction noise effects on these most nearby neighbors is conservatively considered to be significant and unavoidable.~~

Revisions to Mitigation Measures, based on Revised Project

The Project applicant has now proposed a Revised Project that is different from the original Project. Chapter 2 of this document provides a brief summary of the original Project and a description of those modifications to the original Project now proposed pursuant to this Revised Project. Chapter 3 of this document provides an assessment of the Revised Project's environmental impacts, including an issue-by-issue comparison of potential impacts of the original Project that are now avoided or reduced in extent based on the changes and modifications incorporated into the Revised Project. The Revised Project and the environmental analysis of the Revised Project are not considered changes or revisions to the Draft EIR. However, for purposes of clarity, all changes or revisions to mitigation measures from the Draft EIR that have been made in response to the Revised Project and its environmental analysis, are presented in this chapter.

Chapter 4: Aesthetics

Page 4-13

No residential buildings pursuant to the Revised Project extend into the Petaluma River Plan Corridor, such that the aesthetic impacts of the Revised Project are substantially reduced as compared to the original Project. Updated Mitigation Measure Bio-10A (see below) limits other types of improvements that may be constructed within the River Plan Corridor, further reducing aesthetic impacts. Mitigation Measure Visual-2 is therefore amended as indicated below to reference the revised Mitigation Measure Bio-10A as reducing visual impacts of the Revised Project:

Mitigation Measure Visual-2: Implement Mitigation Bio-10A, limiting the extent of improvements allowed within the Petaluma River Plan Corridor (see Biology, below). ~~Preclude Residential Development from intruding into the Petaluma River Plan Corridor. No portion of the residential component of the Project shall extend into the Petaluma River Plan Corridor (comprised of the Preservation, Restoration, and Buffer management zones of the River Plan; see Corridor mapped at Figure 6-6—see also discussion and Mitigation Measure Bio-11A). Only River Plan Corridor components shall be allowed with the Corridor including the river trail, terracing and restoration.~~

Based on the Revised Project, Mitigation Measures Visual-3A through Visual-3C are amended as follows:

Mitigation Measure Visual-3A, Inclusion in SPAR: The Site Plan and Architectural Review process for the Revised Project shall include evaluation and review of the Revised Project for:

- a) Creation of a lush landscape plan to accommodate significant trees in a manner consistent with the Oak Creek Apartment complex (see also Mitigation Bio-9: Incorporation of Native Plants in Landscaping Plans)
- b) Adequate setbacks and/or landscaping between existing abutting residential structures in the R2 zoning district (addressed from Graylawn Avenue and Bernice Court), and
- c) Extent of desirability of utilizing a single-loaded street near the River corridor, as the means of ensuring the creation of linear open space corridors with maximum public accessibility, visibility, and opportunities for stewardship pursuant to GP 2-P-8

Mitigation Measure Visual-3B, Implement Mitigation Bio-10B, providing for a review of all development proposed within the River Oriented Development Zone at SPAR (see Biology section for details). ~~RODZ review at SPAR: The Site Plan and Architectural Review process shall include evaluation and review of the Project for consistency with River Oriented Development Zone (RODZ) policies and design guidelines. (See River Plan page 79-80 and Chapter 9: Design Guidelines.) As the concept plan for the apartment project is fully detailed for Site Plan and Architectural Review, the northern portion of the Project that is within the RODZ (APN-009) shall be designed pursuant to the RODZ Guidelines.~~

Mitigation Measure Visual-3C, Implement Mitigation Bio-11A: providing for additional review at SPAR to seek further preservation of existing trees a may be possible (see Biology section for details). ~~Further Preservation of Existing Trees: Preservation of all existing trees on the Project site may conflict with reasonable land development considerations and with creation of the terraced grading as directed by the General Plan. However, the final design for the Project, to be reviewed at SPAR, shall seek to preserve the most desirable and significant healthy trees on site.~~

- a) ~~As River Plan policy 20 (page 80) specifically directs the protection, restoration, and enhancement of fragile habitat isolated in the RODZ, such as oaks, whenever feasible and as Condition 5 of the Oak Creek Apartments PUD states all existing on-site oak trees shall be permanently preserved, preservation of the most healthy and mature oak trees on APN-009 shall be pursued during Site Plan and Architectural Review; these are oaks 36 and 59-62, all 5 of which were found to be in good to excellent condition and each of which is a mature oak ranging from 21 to 37 inches in diameter. Other trees shall also be considered for preservation but may not warrant the same level of priority, being either burned and in only fair condition (oak 37) or young as compared to oaks 36 and 59-62 and thus replaceable within a shorter period of time than the mature oaks (oaks 101 and 202, being within the dripline of to-be-preserved oak 38 and near the to-be-preserved landscaped turn-around respectively).~~
- b) ~~The Site Plan and Architectural Review process shall further consider site design modifications to preserve protected trees to the greatest extent possible at APN-006 generally (as directed by the Tree Ordinance). Each Protected tree shall be further considered for preservation; oaks 1, 13, 17 and 100 shall be particularly pursued.~~
- c) ~~During preparation of the site plan for Site Plan and Architectural Review, the applicant shall work collaboratively with the arborist and the civil engineer to design a site plan that addresses Bio-11 b through d. The arborist shall provide the further tree preservation analysis, as part of~~

~~the SPAR submittal.~~

Chapter 6: Biology

Page 6-45, Mitigation Measure Bio-5B

To provide greater clarity and better reflect the Revised Project's grading plans for the river terrace, City staff recommends the following revisions to this mitigation measure.

Mitigation Measure Bio-5B, Riparian Tree Preservation: ~~Special measure to protect~~ A consulting arborist shall review preliminary grading plans for the river terrace and for the riverside path, prior to issuance of grading plans. The arborist shall recommend tree preservation measures (i.e., protective fencing, grading limits and tree pruning plans) to ensure preservation of individual riparian and oak woodland trees within and abutting the riparian zone. This measure shall also apply to those riparian zones as expanded by the river terracing project, including trees #65-68, 70-73, 80, 106-107, 209-212 and 205-208, and the 0.30-acre willow thicket designated as the Riparian (Willow) Preservation Zone.

Page 6-51, Mitigation Measure Bio-10A:

No residential buildings pursuant to the Revised Project extend into the Petaluma River Plan Corridor, but other improvements associated with the Revised Project do extend within the River Corridor boundaries. The following updated Mitigation Measure Bio-10A limits the type and extent of improvements that may be constructed within the River Plan Corridor to only those improvements approved pursuant to the SPAR process.

Mitigation Bio-10A, Limitations on Improvements within the ~~Preclude Residential Development from intruding into the~~ Petaluma River Plan Corridor: No portion of the residential component of the Project shall extend into the Petaluma River Plan Corridor (comprised of the Preservation, Restoration, and Buffer Management Zones of the River Plan, see Corridor mapped at Figure ~~2-5) 6-6~~ 2-5) 6-6). (See also Bio-11A). The only improvements allowed within the River Plan Corridor ~~components allowed with the Corridor~~ include the river trail, terracing and restoration, and potentially a sidewalk, detention basin and other minor encroachments as may be permitted pending subsequent approval during the SPAR process.

Page 6-65, Mitigation Measure Bio-11A:

Based on the Revised Project, Mitigation Measure Bio-11A is amended as follows:

Mitigation Measure Bio-11A, ~~Further~~ Ensure Preservation of Existing Trees: ~~To achieve greater consistency with the City's River Plan, The final designs of the~~ residential portion of the Project should be redesigned to reflect the goal of preserving protected trees ~~to the greatest extent possible, particularly those protected trees located within the Petaluma River Plan Corridor and those oaks isolated in the RODZ. While it is recognized that the preservation of all existing trees on the Project site may conflict with reasonable land development considerations and with creation of the terrace directed by the General Plan, the~~ final design of the Project, to be reviewed at SPAR, shall seek to preserve the most desirable and significant healthy trees on site.

- a) No protected tree shall be removed unless a tree removal, grading or building permit is issued by the Community Development Department.
- b) As the Revised Project concept plan depicts, the residential structures ~~and their associated improvements shall be shifted such that they do not~~ extend into the Petaluma River Plan Corridor. Protected healthy oak trees located within the Petaluma River Corridor (trees #69, 75, 77 and 79) shall be preserved ~~by a reasonable redesign of the residential Project. Within the~~

Petaluma River Plan Corridor, the small California bay (#74) shall also be preserved as a native tree within the Corridor. The eucalyptus (#76) shall be removed as an exotic species undesirable near a riparian setting.

- c) As the Revised Project concept plan depicts, not more than three mature oak trees shall be removed from the RODZ (i.e., within APN-009) to accommodate the Project. The Revised Project's concept plan shows these as oaks #59, 60 and 61. Younger oaks #101 and 202 shall also be preserved. Should the updated arborist review (per Mitigation Measure Bio-11e) finds that any of the large oaks proposed to be preserved by the concept plan is not healthy and a good candidates for preservation, the site plan designed for SPAR shall instead preserve another of the large oaks on APN-009. As River Plan policy 20 (page 80) specifically directs the protection, restoration, and enhancement of fragile habitat isolated in the RODZ, such as oaks, whenever feasible and as Condition 5 of the Oak Creek Apartments PUD states all existing on-site oak trees shall be permanently preserved, preservation of the most healthy and mature oak trees on APN-009 shall be pursued during Site Plan and Architectural Review. These are oaks #36 and 59 – 62, all 5 of which were found to be in good to excellent condition and each of which is a mature oak ranging from 21 to 37 inches in diameter. Other trees shall also be considered for preservation but may not warrant the same level of priority, being either burned and in only fair condition (oak #37) or young as compared to oaks #36 and 59-62, and thus replaceable within a shorter period of time than the mature oaks (oaks #101 and 202, being within the dripline of to-be-preserved oak #38 and near the to-be-preserved landscaped turn-around, respectively).
- d) The Site Plan and Architectural Review process shall further consider site design modifications to preserve protected trees to the greatest extent possible at APN-006 generally (as directed by the Tree Ordinance). Each Protected tree shall be further considered for preservation; oaks #1, 13, 17 and 100 shall be particularly pursued. Tree protection on APN-006 shall be equal to that depicted by the Revised Project's concept plan. Thinning of the redwoods along Graylawn may be authorized by SPAR if recommended by the arborist. The EVA shall be designed to accommodate oaks 1 and 2, but should the Fire Marshal and the arborist find this impossible, SPAR is authorized to allow their removal pursuant to Mitigation Measure Bio 11-B.
- e) During preparation of the site plan for SPAR, the applicant shall work collaboratively with the arborist and the civil engineer to design a site plan that addresses Bio 11B through 11D. The arborist shall provide further tree preservation analysis as part of the SPAR submittal.

Chapter 10: Hazards

Page 10-13, Mitigation Measure Haz-5

Mitigation Measure Haz-5 is amended to reflect the Revised Project's concept design for an open fence along the rail tracks, subject to review and approval by SPAR.

Mitigation Measure Haz-5, Fencing: As demonstrated in the Revised Project's conceptual design, the Project shall include an open-design appropriate fence along the edge of and parallel to the rail tracks, with consideration provided to the protection of existing trees, to limit access onto the railroad right-of-way. The final fence design shall be subject to SPAR review and approval.

Page 10-16, Mitigation Measures Haz-6:

Mitigation Measures Haz-6 is not required of the Revised Project, as the Shasta Avenue Extension and its proposed at-grade rail crossing are no longer proposed:

~~**Mitigation Measure Haz-6, Grade Separation:** Any access to the Project site proposed as an extension of Shasta Avenue shall include plans for a grade-separated crossing of the rail tracks. Any~~

proposal for a grade-separated crossing of the rail tracks at Shasta Avenue shall be accompanied by detailed design plans, which shall be subject to subsequent or supplemental review by the City, as well as approval by the CPUC, prior to construction. Any plans submitted to the City of Petaluma for such a grade-separated crossing must be accompanied by a Fire Protection Engineer Report, per the requirements of the City of Petaluma Fire Department.

Chapter 13: Noise and Vibration

Page 13-22, Mitigation Measure Noise-3:

Mitigation Measure Noise-3, Quiet Zone Designation is not required of the Revised Project because the Shasta Avenue Extension and its proposed at-grade rail crossing are no longer proposed:

~~**Mitigation Measure Noise 3 – Quiet Zone:** The Project applicant shall be responsible for obtaining a “Quiet Zone” designation for the Shasta Avenue crossings. A Quiet Zone application must be a joint application between the local jurisdiction and the rail operator, and must include supplementary safety measures to ensure that safety is not compromised by eliminating the required sounding of the train horns. The Project applicant shall be financially responsible for all costs associated with obtaining the Quiet Zone designation and implementation of the supplementary safety measures, including installation of crossing controls that meet FRA requirements.~~

Chapter 14: Traffic and Circulation

Page 14-58, Mitigation Measure Transp-3:

The Revised Project no longer proposes the Shasta Avenue Extension and, as a result, will no longer contribute cumulatively significant traffic to the Petaluma Boulevard/Shasta Avenue intersection. The Revised Project will be subject to the City’s Traffic Impact Fees, which are collected to fund ongoing maintenance and planned improvements citywide, including the Rainier Crosstown Connector and associated improvements.

~~**Mitigation Measure Transp 3, Petaluma Boulevard/Shasta Avenue:** As presented in the Rainier Cross Town Connector Draft EIR (prepared by URS Corporation, July 2014), restriping the existing westbound approach to Petaluma Boulevard North/Sycamore Lane (Shasta Avenue) to provide an exclusive left turn lane and a shared left/through/right turn lane plus an exclusive northbound right turn lane. These improvements would improve the intersection to LOS C in the PM peak hour under Cumulative plus Project conditions. However, this additional right turn lane would cause the pedestrian crossing distance to increase which would cause a secondary impact to pedestrians, based on the criteria set forth in the Petaluma General Plan. To reduce impacts to pedestrians resulting from increased crossing distances, a median refuge (at least five feet wide) should be installed for pedestrians crossing Shasta at the south leg of Petaluma Boulevard; these improvements are required as mitigation measures for the Rainier Cross Town Connector Project. The Project would contribute traffic to this cumulative impact. Therefore, in addition to applicable Traffic Impact Fees, the applicant shall make a fair share contribution towards this intersection improvement. Prior to building permit issuance, the applicant shall calculate preliminary costs associated with the intersection improvement, subject to review and approval by the City Engineer.~~

Page 14-65, Mitigation Measures Traf-7Aa and Traf-7B

These mitigation measures are not required of the Revised Project, as the Shasta Avenue Extension and its proposed at-grade rail crossing are no longer proposed:

~~**Mitigation Measure Transp 7A, Grade Separated Vehicle Bridge:** Acceptable vehicular and emergency access to the Project site could be provided via a grade-separated bridge crossing over~~

the rail tracks at the Shasta Extension to Graylawn. CPUC approval of such a vehicle bridge design is required prior to construction.

Mitigation Measure Transp 7B, At-Grade Rail Crossing Safety Improvements: To improve vehicle and emergency vehicle safety at the proposed at-grade crossing at the Shasta Extension to Graylawn, the proposed crossing design shall be reviewed by a diagnostic team and undergo a detailed Engineering Study to identify the most effective and appropriate warning devices applicable for this crossing. If approved by the CPUC, the Project shall then implement all recommended improvements. Costs can vary widely depending on site conditions, improvements needed, and existing infrastructure.

Page 14-72, Mitigation Measure Transp-8:

This mitigation measure is not required of the Revised Project, as the Shasta Avenue Extension is no longer proposed:

Mitigation Measure Transp 8, Shasta Avenue Street Improvements: If the Project's proposed at-grade rail crossing at Shasta Avenue is approved by the CPUC, the Shasta Extension to Graylawn shall include a continuation of street improvements to the existing off-site road section of Shasta Avenue, from west of the rail tracks to the intersection at Petaluma Boulevard North. The re-design shall be subject to review and approval at time of Improvement Plan review. Petaluma City Staff will coordinate review of all aspects of the improvements with the appropriate review committees.

Page 14-77, Mitigation Measures Transp-9A and -9B

These mitigation measures are not required of the Revised Project, as the Shasta Avenue Extension is no longer proposed:

Mitigation Measure Transp 9A, Grade Separated Bridge: Acceptable pedestrian and bicycle access to the Project site could potentially be provided via a grade-separated bridge crossing over the rail tracks at the Shasta Extension to Graylawn. CPUC approval of such a bridge design is required prior to construction.

Mitigation Measure Transp 9B, At-Grade Rail Crossing Safety Measures: To improve pedestrian and bicycle safety at the proposed Shasta Extension to Graylawn at-grade crossing, the Project Sponsor shall fund a detailed Engineering Study of the proposed crossing, subject to review and approval of the City Engineer, to identify the most effective and appropriate warning devices applicable for this crossing. If the at-grade crossing is ultimately approved by the CPUC and the City of Petaluma, the Project shall then implement the recommended improvements. Costs can vary widely depending on site conditions, improvements needed, and existing infrastructure.

Appendix A:

Traffic Calming Plan, Fehr & Peers, June 2019

MEMORANDUM

Date: June 4, 2019
To: Scott Gregory, Lamphier-Gregory
From: Matt Goynes and Jarrett Mullen, Fehr & Peers
Subject: Sid Commons FEIR: Traffic Calming Strategies

SF06-0299

This memorandum presents potential traffic calming strategies for Graylawn and Jess avenues that could be considered by the project sponsor, City staff, and neighborhood residents. These traffic calming strategies are based on the findings related to traffic volumes and vehicles speeds on these two local residential roadways, as presented within the *Sid Commons FEIR: 2019 Supplemental Traffic Evaluation* (Fehr & Peers, April 2019). This memorandum supplements the information presented in the Sid Commons Draft Environmental Impact Report (DEIR), which analyzed the environmental impacts of the Sid Commons multifamily development project (herein referred to as "the Project") located in the City of Petaluma, CA.

The strategies presented within this memorandum are intended to be conceptual in nature and are not intended for immediate implementation without a community engagement process followed by detailed engineering design.

Overview

The Project presented in the DEIR included 278 apartment units at the northern terminus of Graylawn Avenue. Based on a January 2019 site plan and project description, the Revised Project analyzed in the FEIR and the *2019 Supplemental Traffic Evaluation* memorandum includes 205 multifamily units.

Figure 1 shows the project location and traffic count locations from the *2019 Supplemental Traffic Evaluation* memorandum. The Project site is at the northern end of Graylawn Avenue, a local residential street, which provides vehicle, bicycle, and pedestrian access to the site. Jess Avenue,



along with Graylawn Avenue, connects the Project site to West Payran Street. Compared to Jess Avenue, Graylawn Avenue is the shortest and most direct pathway for people to access the Project site.

Below is a summary of the key findings related to traffic calming from the *2019 Supplemental Traffic Evaluation* memorandum:

- On average, 86 percent of drivers departing or approaching the Oak Creek Apartments use Graylawn Avenue to access Payran Street and the remainder use Jess Avenue.
- The existing traffic speeds and future projected traffic volumes with the Revised Project on Graylawn Avenue exceed the standards outlined in the City of Petaluma's General Plan for a local residential street. Therefore, the City, Project Sponsor, and neighborhood residents should consider a traffic calming program for Graylawn Avenue.

The rest of this memorandum outlines three traffic calming concepts that the City, Project Sponsor, and neighborhood residents could pursue in a manner consistent with the City's goals for traffic calming in residential neighborhoods, as outlined in the City's 2025 General Plan. All scenarios include traffic calming elements for both Graylawn and Jess avenues to avoid creating a situation where a traffic calming program on Graylawn Avenue causes drivers to divert onto Jess Avenue.



Figure 1
Traffic Count Locations
Sid Commons FEIR 2019
Supplementary Traffic Evaluation





Traffic Calming Concepts

Fehr & Peers developed three traffic calming concepts to provide the local stakeholders several preliminary ideas on a range of infrastructure changes. The features, anticipated effectiveness, and planning-level costs for Concepts A, B, and C are summarized below. In general, Concept A includes the lowest cost and quickest implementation strategies, while B and C include more intensive strategies. Strategies may be combined from multiple concepts in the final traffic calming plan. **Figures 2** through **4** show the approximate location of the traffic calming features and photos of similar treatments in other cities. Unless otherwise referenced, all traffic calming data are from the Federal Highway Administration's (FHWA) *Traffic Calming ePrimer*, a comprehensive online traffic calming reference.

The traffic calming measure toolbox is vast and provides a variety of effective treatments to reduce the negative effects of motor vehicle travel on communities. Many communities select and implement specific features through an involved community engagement process as road design changes are typically major issues of public interest, especially in intimate neighborhood settings. The following scenarios are intended to serve as an initial sample of options to inform a community discussion and are not intended for immediate implementation. The traffic calming scenarios would need to be refined through an iterative process as community concerns and objectives are identified.

Concept A: Speed Feedback Signs, Markings & Median Islands

Description: Speed feedback signs have dynamic digital displays which show the speed of the approaching motorist, usually adjacent to a static sign showing the roadway speed limit.

Pavement markings are large symbols, words, or numbers affixed to the pavement to warn or inform people of roadway conditions. Speed limits can be applied to roadways in the travel lanes to inform drivers of the legal speed limit.

Median islands are raised concrete islands located in the center of the roadway which narrow travel lanes and prevent wide turns, which slow vehicle speeds.



- Effectiveness:** Speed feedback signs are shown to reduce the 85th percentile speed by 2 to 7 mph;
- Pavement markings have been found to reduce vehicle speeds by 1 mph in rural settings.
- Median islands are shown to reduce vehicle speeds by 2 to 3 mph.
- Planning-Level Cost:** \$5,000 - \$12,000 per feedback sign
- \$1,500 per each pavement legend and sign.
- \$15,000-25,000 for median island depending on size.
- Pro:** Features are cost-effective and fast to install. Median islands provide opportunity for enhanced landscaping and generally do not affect drainage, limiting potential for costly utility relocation
- Con:** Without periodic speed enforcement, effectiveness of the speed feedback sign may diminish over time.

Concept 2: Speed Humps

- Description:** Speed humps are raised mounds of asphalt placed across the road travel way that are typically three to four inches tall and 12 feet long. Speed humps must be placed in a series to achieve continuous speed reduction effects along a corridor. They are the most effective tool in reducing motor vehicle speeds and are widely employed by communities in the United States and around the world.
- The corresponding graphic, **Figure 2**, show speed humps on both Graylawn and Jess Avenues to balance the traffic volume shifts noted in studies on the effects of traffic calming measures.
- Effectiveness:** Reduces speeds to the range of 15 to 20 mph when crossing the hump; speed rate increases approximately 0.5 to 1 mile per hour, per every 100 feet beyond the 200-foot approach and exit of the speed hump. Volume reductions of 20% observed.



Planning-Level Cost: \$4,000 per hump

Pro: Cost-effective and most effective measure in reducing vehicle speeds.

Con: Not recommended for a City-designated emergency vehicle response routes. They also cause motorist discomfort when approached faster than the design speed.

Concept 3: Curb Extensions, Traffic Circle, & Streetscape

Description: Curb extensions narrow the travel way at intersections or mid-block locations to reduce vehicle speeds. At intersections, the narrowed travel way can enhance pedestrian connectivity, safety, and comfort while creating additional space for landscaping and pedestrian amenities.

Intersection Curb extensions could be implemented where Jess and Graylawn avenues intersect Payran Street, which would enhance pedestrian connectivity along Payran Street, a recommended safe route to school to McKinley Elementary¹, while slowing turning vehicles entering the neighborhood.

Mid-block curb extensions could be implemented along Jess and Graylawn Avenues to provide street landscaping opportunities and develop a pattern of traffic calming measures to achieve consistent speed reduction effects.

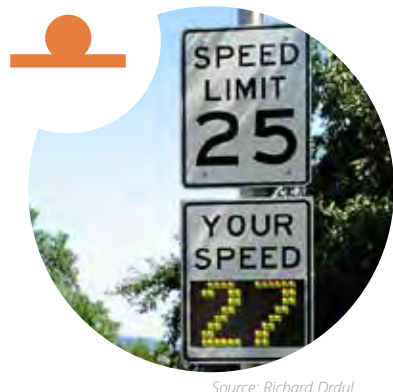
A traffic circle could be implemented at the intersection of Graylawn Avenue and Jess Avenue to control turning and through movement vehicle speeds. The interior area may be landscaped.

Street tree planting could be implemented corridor-wide where right-of-way allows. City right-of-way appears to extend five feet back from the public sidewalk on Graylawn and Jess Avenues, allowing for street trees to be planted should this approach be selected through City and community review.

¹ City of Petaluma San Routes to School Plan, July 10, 2015, prepared by W-Trans.



- Effectiveness:** Curb Extensions at intersections slow turning vehicles and reduce pedestrian crossing distances. At mid-block locations, traffic speeds likely to decrease slightly depending on the width of the opening.
- Traffic circles reduce speed within the limits of the circle are reduced by 5 to 13 mph; within 200 feet, speed reductions are 1 to 6 mph.
- Planning-Level Cost:** \$50,000-100,000 per intersection curb extension, depending on utility conflicts; \$25,000 per traffic circle; \$500 per street tree planting site
- Pro:** Enhances pedestrian connectivity and comfort along a safe route to school corridor and provides transformative enhancements to the street environment through potential corridor-wide landscaping.
- Con:** High cost. Curb extensions typically modify or impact drainage, requiring new stormwater infrastructure and potential utility relocation. Mid-block curb extensions are less effective at reducing vehicle speed than similar measures but offer greening opportunities. Street tree planting opportunities may be limited by right-of-way, utility conflicts, and/or City maintenance resources.



Source: Richard Drdul

Speed Feedback Signs

Speed feedback signs are interactive signs that displays vehicle speeds as motorists approach. The signs reduce vehicular speeds by making drivers aware when they are driving at unsafe or illegal speeds. Research shows the signs are effective on lower-volume, single-lane roadways such as Graylawn Avenue, but benefit from the perception of regular enforcement.



Source: City of San Francisco

Gateway Median Islands

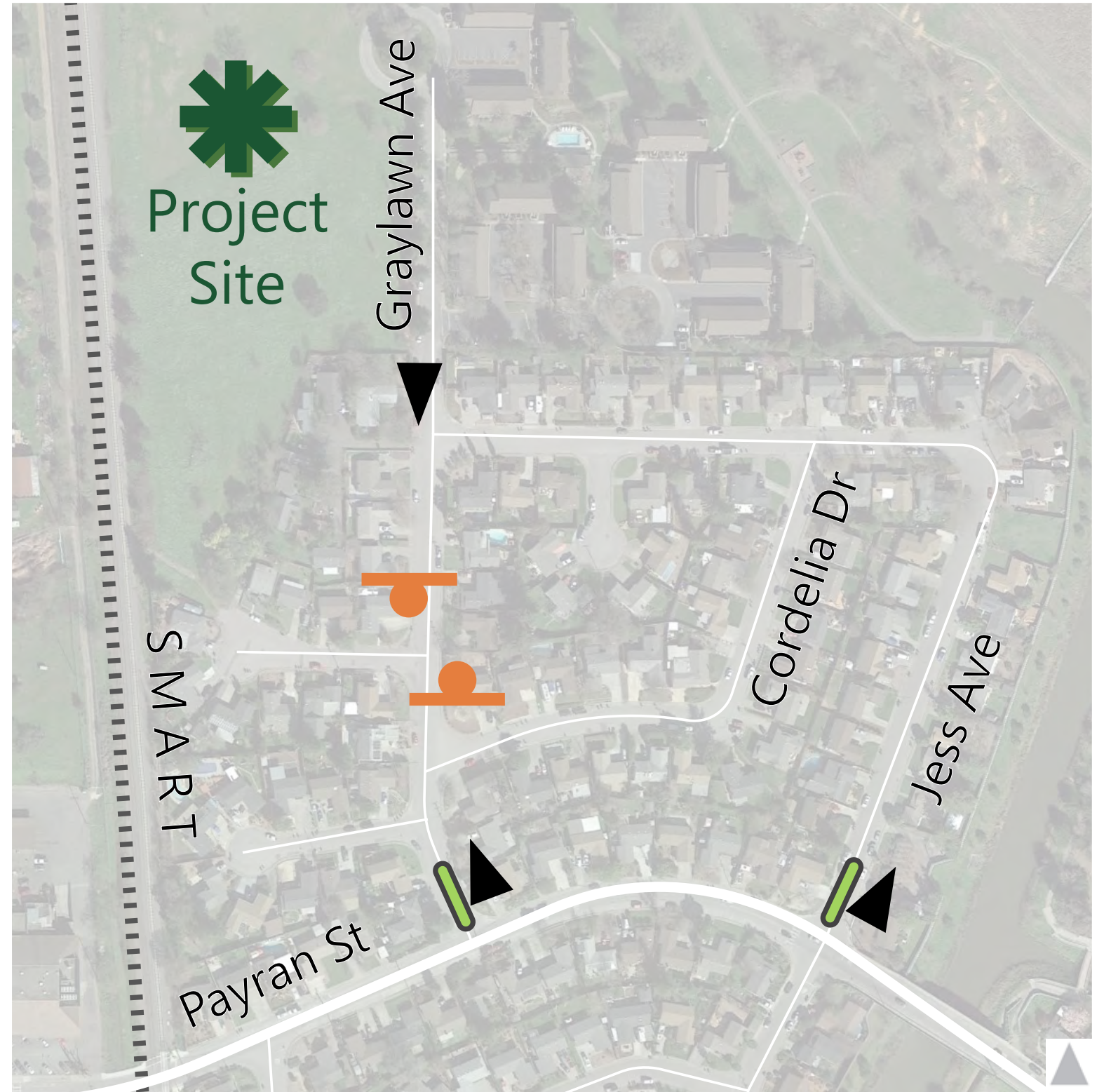
“Gateway” traffic calming features are well-suited on Jess and Graylawn Avenues where they intersect Payran Street. These locations are opportunities to evoke lower speed to drivers approaching from faster-moving Payran Street. Raised median islands narrow the travelway, prompting motorists to slow and preventing high-speed left turns across the centerline. Landscaping or decorative paving can be installed to enhance neighborhood identity.



Source: Iowa State Univ.

Speed Markings & Signage

Speed limit signage and pavement markings are not installed on Jess and Graylawn Avenues, and approaching motorists may be unaware of the local street speed limit. New speed limit signage and pavement markings are recommended at neighborhood gateways to prompt motorists to follow speed laws.



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Figure 2
Traffic Calming Concept A



Source: City of Redmond

Speed Humps

Speed humps are raised, rounded areas of pavement, typically 12 to 14 feet long and three to four inches tall. Speed humps are longer and shorter than speed bumps, which are commonly found in parking lots, but not a public roadways. A single speed hump reduces motor vehicle speed to 15 to 20 m.p.h. when crossing the hump. Speed reduction effects decline as distance from the hump increases, necessitating a series of humps to achieve uniform speed reduction effects along a corridor.

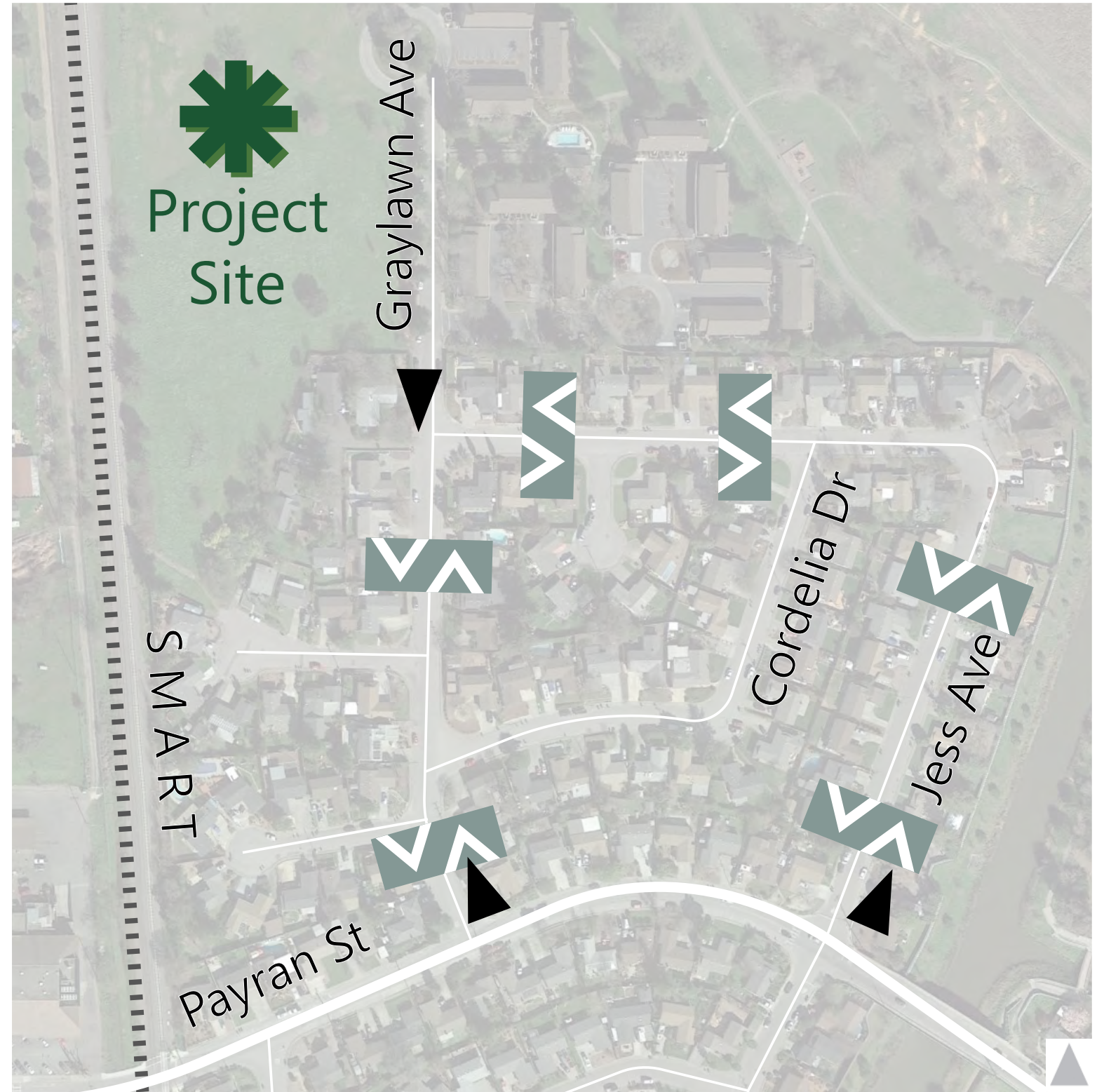
Speed humps are shown on Jess Avenue and Graylawn Avenue to counteract driver route preferences to roadways without speed humps. The quantity and location of the humps are based on siting criteria from the Institute of Transportation Engineers and Federal Highway Administration.



Source: Iowa State Univ.

Speed Markings & Signage

Speed limit signage and pavement markings are not installed on Jess and Graylawn Avenues, and approaching motorists may be unaware of the local street speed limit. New speed limit signage and pavement markings are recommended at neighborhood gateways to prompt motorists to follow speed laws.



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Figure 3
Traffic Calming Concept B



Source: Google Maps

Traffic Circle

Traffic circles are raised circular islands typically placed in the center of an intersection. The circle is sized to slow vehicles turning or traveling through the intersection. The center may be landscaped. The Jess Avenue and Graylawn Avenue intersection is a possible site for a traffic circle to slow drivers turning to Jess Avenue or traveling straight on Graylawn Avenue.



Source: NACTO

Curb Extensions

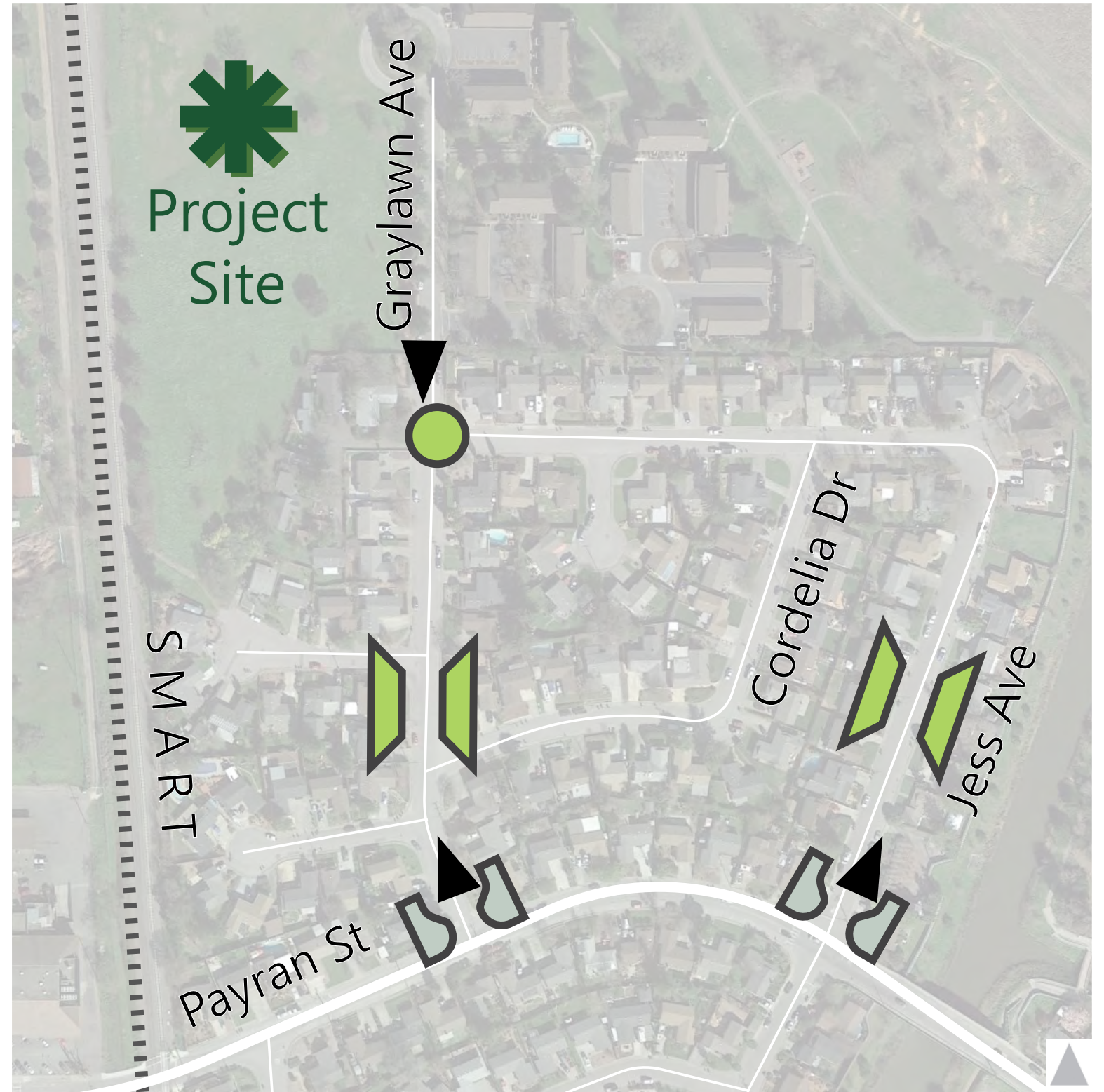
A curb extension is a horizontal extension of the sidewalk into the street resulting in a narrower roadway section. When installed at an intersection, drivers must slow to turn and pedestrian crossing distance is reduced. Curb extensions are appropriate on Jess and Graylawn Avenues where they intersect Payran Street, where they can also function as a neighborhood "gateway" feature, marking the transition to a slower street.



Source: Iowa State Univ.

Speed Markings & Signage

Speed limit signage and pavement markings are not installed on Jess and Graylawn Avenues, and approaching motorists may be unaware of the local street speed limit. New speed limit signage and pavement markings are recommended at neighborhood gateways to prompt motorists to follow speed laws.



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Figure 4
Traffic Calming Concept C

Appendix B:

Noise and Vibration Data, Illingworth and Rodkin, May 2019

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MEMO

Date: May 14, 2019

To: **Scott Gregory**
Lamphier • Gregory

From: **Michael Thill**
Illingworth & Rodkin, Inc.

**SUBJECT: Sid Commons Project, Petaluma, CA –
Noise and Vibration Data**

This memo summarizes the results of the noise and vibration measurements made for the Sid Commons Project in Petaluma, California. The purpose of the noise and vibration survey was to quantify existing noise and vibration levels attributable to trains along the SMART corridor and existing traffic noise levels along Graylawn Avenue.

Existing Noise Environment

Figure 1 shows the project vicinity and locations selected to monitor existing noise and vibration levels. The project site is generally located between the SMART corridor on the west and Graylawn Avenue on the east, north of Bernice Court. Rail operations along the SMART corridor and local vehicular traffic along Graylawn Avenue are the predominant noise sources affecting the site and vicinity. Traffic along US Highway 101 is the background noise source affecting the area.

A noise monitoring survey was completed by Illingworth & Rodkin, Inc. in order to quantify ambient noise levels produced by SMART rail operations and vehicular traffic along Graylawn Avenue. The noise monitoring survey included two long-term measurements (LT-1 and LT-2). Which began on Wednesday, April 24, 2019 and ended on Wednesday, May 1, 2019. Weather conditions during the measurement period were generally good for noise monitoring. Noise measurements were made with Larson Davis Model 820 Integrating Sound Level Meters (SLMs) set at “slow” response. The sound level meters were equipped with G.R.A.S. Type 40AQ ½-inch random incidence microphones and fitted with windscreens. The sound level meters were calibrated prior to the noise measurements using a Larson Davis Model CAL200 acoustical calibrator. The response of the system was checked after each measurement session and was always found to be within 0.2 dBA. No calibration adjustments were made to the measured sound

levels. At the completion of the monitoring event, the measured interval noise level data were obtained from the SLM using the Larson Davis SLM utility software program.

Long-term noise measurement LT-1 was adjacent to the SMART corridor along the west boundary of the project site. The sound level meter was placed approximately 23 feet east of the centerline of the near set of tracks used by SMART and approximately 10 feet above the ground. Noise levels measured at this site were primarily the result of railroad operations. Maximum instantaneous noise levels produced by SMART train passbys typically ranged from 80 to 90 dBA L_{max} . On Thursday night, April 25, 2019, and Monday night, April 29, 2019, freight trains also passed the site. Maximum instantaneous noise levels produced by freight trains typically ranged from 90 to 100 dBA L_{max} and these nighttime events contributed to higher daily average noise levels. The Community Noise Equivalent Level at Site LT-1 ranged from 62 to 67 dBA CNEL on weekdays and from 58 to 63 dBA CNEL on Saturday and Sunday. The daily trend in noise levels measured at LT-1 is shown in Figures 2-9. Based on the worst-case CNEL noise level measured during the survey, the 65 dBA CNEL noise contour is estimated to be located approximately 30 feet from the center of the near set of railroad tracks.

Site LT-2 was selected to quantify the daily trend in noise levels attributable to traffic along Graylawn Avenue. The noise measurement location was approximately 105 feet from the centerline of Graylawn Avenue along Cordelia Drive. The Community Noise Equivalent Level at Site LT-2 ranged from 59 to 61 dBA CNEL on weekdays and from 56 to 58 dBA CNEL on Saturday and Sunday. The daily trend in noise levels measured at LT-2 is shown in Figures 10-17.

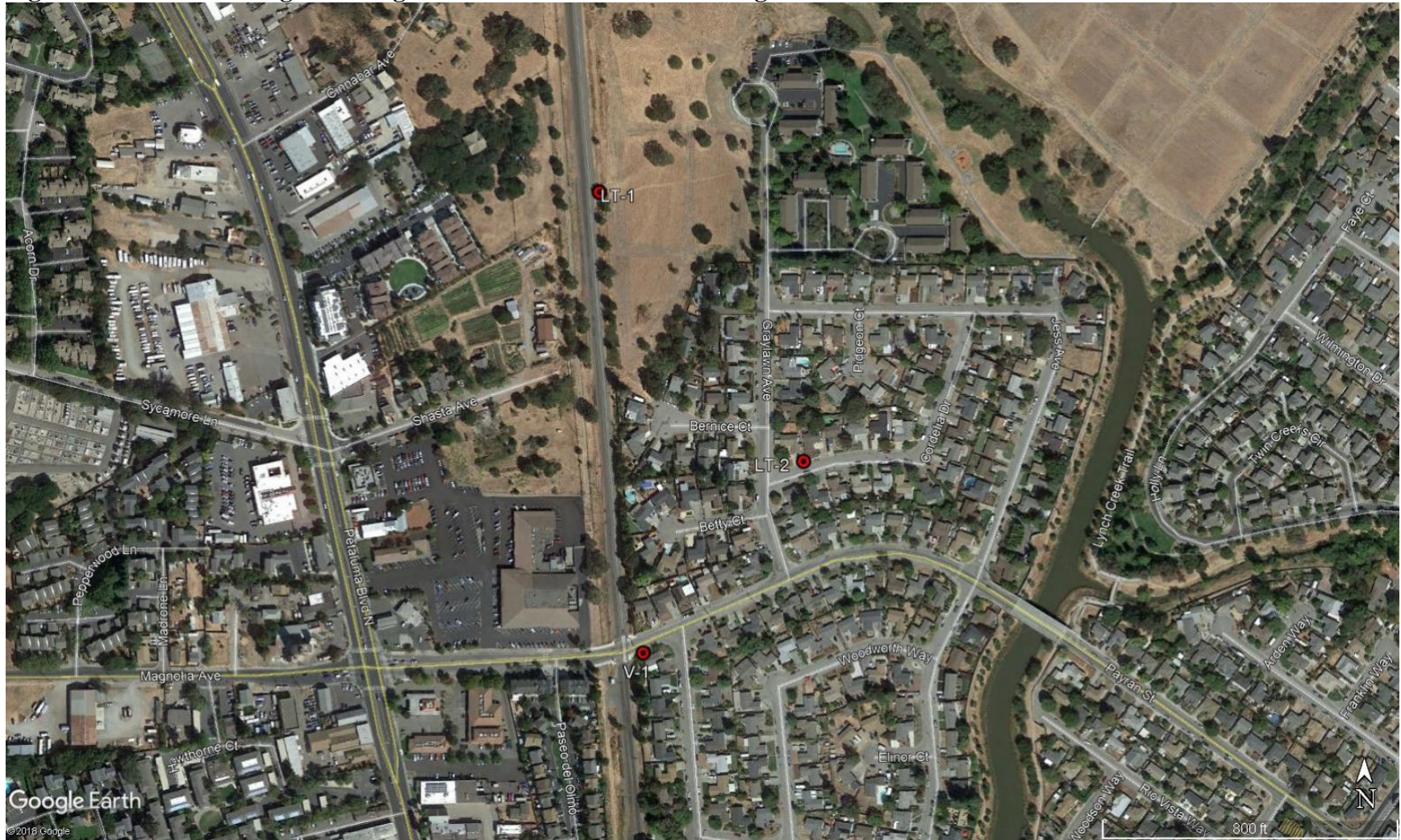
Existing Vibration Environment

Groundborne vibration at the site results primarily from SMART train passbys, which occur approximately 34 times per day during weekdays and approximately 10 times per day during weekend days. SMART trains were observed to pass the site at speeds ranging from 21 to 26 mph. Groundborne vibration is also produced by heavy rail train passbys, which currently occur on an infrequent basis on Monday and Thursday nights. The freight train passbys were not observed, but are also anticipated to travel relatively slowly through the area.

Vibration measurements were made between 8:30 a.m. and 10:30 a.m. on Wednesday, May 1, 2019 from one location representing the 54-foot setback proposed by the project. Vibration data were obtained during five SMART train passbys. The instrumentation used to make the vibration measurements included a Roland Solid State Recorder and seismic grade, low noise accelerometers firmly fixed to the ground. This system is capable of accurately measuring very low vibration levels. Vibration levels measured on the site are representative of vibration levels at ground level (i.e. vibration levels that would enter the building foundation).

Measurement location V-1 was 54 feet from the center of the near SMART track. Vibration levels measured at this location indicate that SMART trains produced overall vibration levels ranging from 58 to 59 VdB. Figure 18 summarize the vibration data collected at the monitoring location that represented the minimum setback of the project. As demonstrated on Figure 18, vibration levels from SMART trains were well below the FTA's 72 VdB criteria for a detailed analysis.

Figure 1 Aerial Image Showing Noise and Vibration Monitoring Locations



Source: Google Earth 2019.

**Noise Levels at Noise Measurement Site LT-1
~23' from Centerline of Railroad Tracks
Wednesday, April 24, 2019**

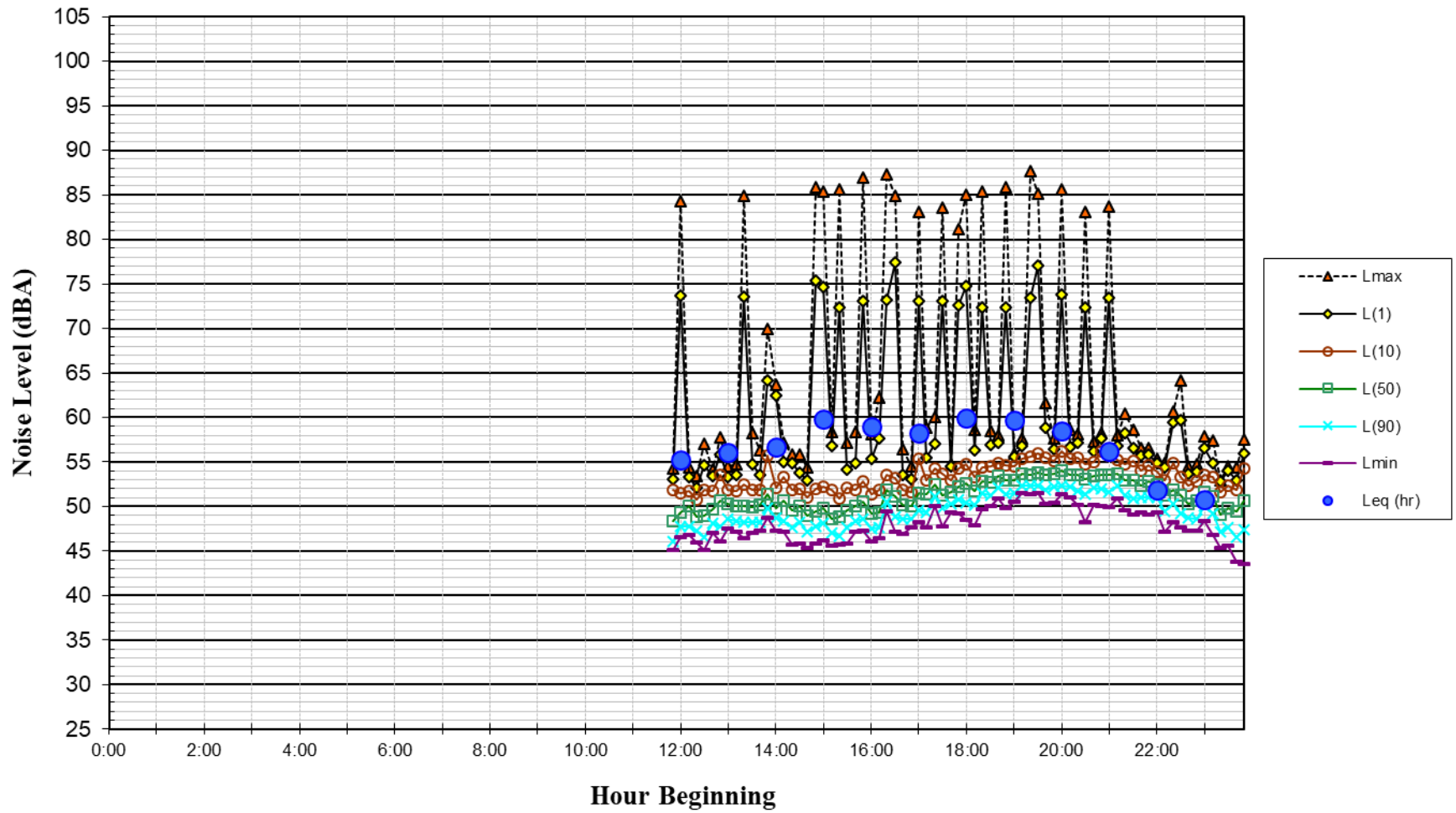


Figure 2

**Noise Levels at Noise Measurement Site LT-1
~23' from Centerline of Railroad Tracks
Thursday, April 25, 2019**

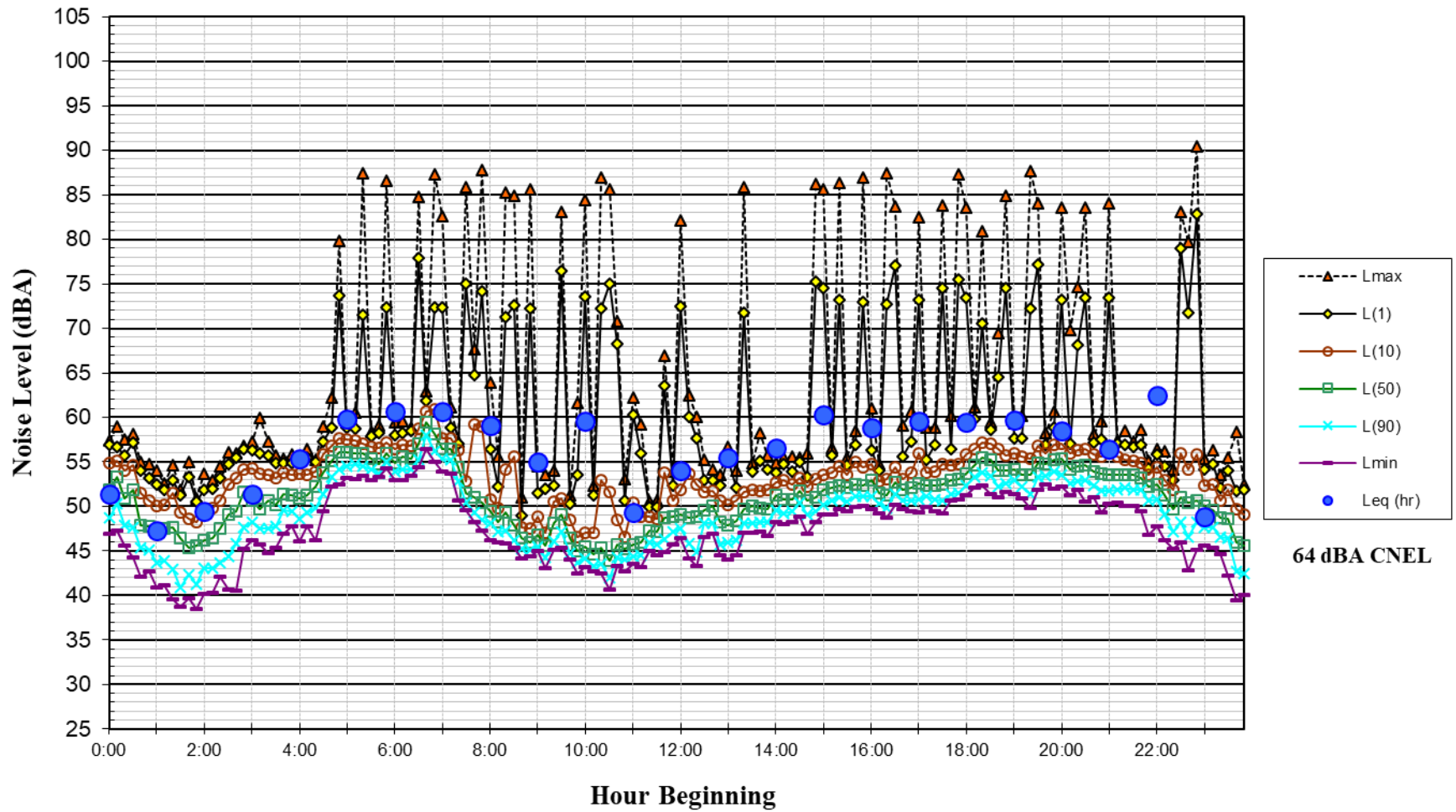


Figure 3

**Noise Levels at Noise Measurement Site LT-1
~23' from Centerline of Railroad Tracks
Friday, April 26, 2019**

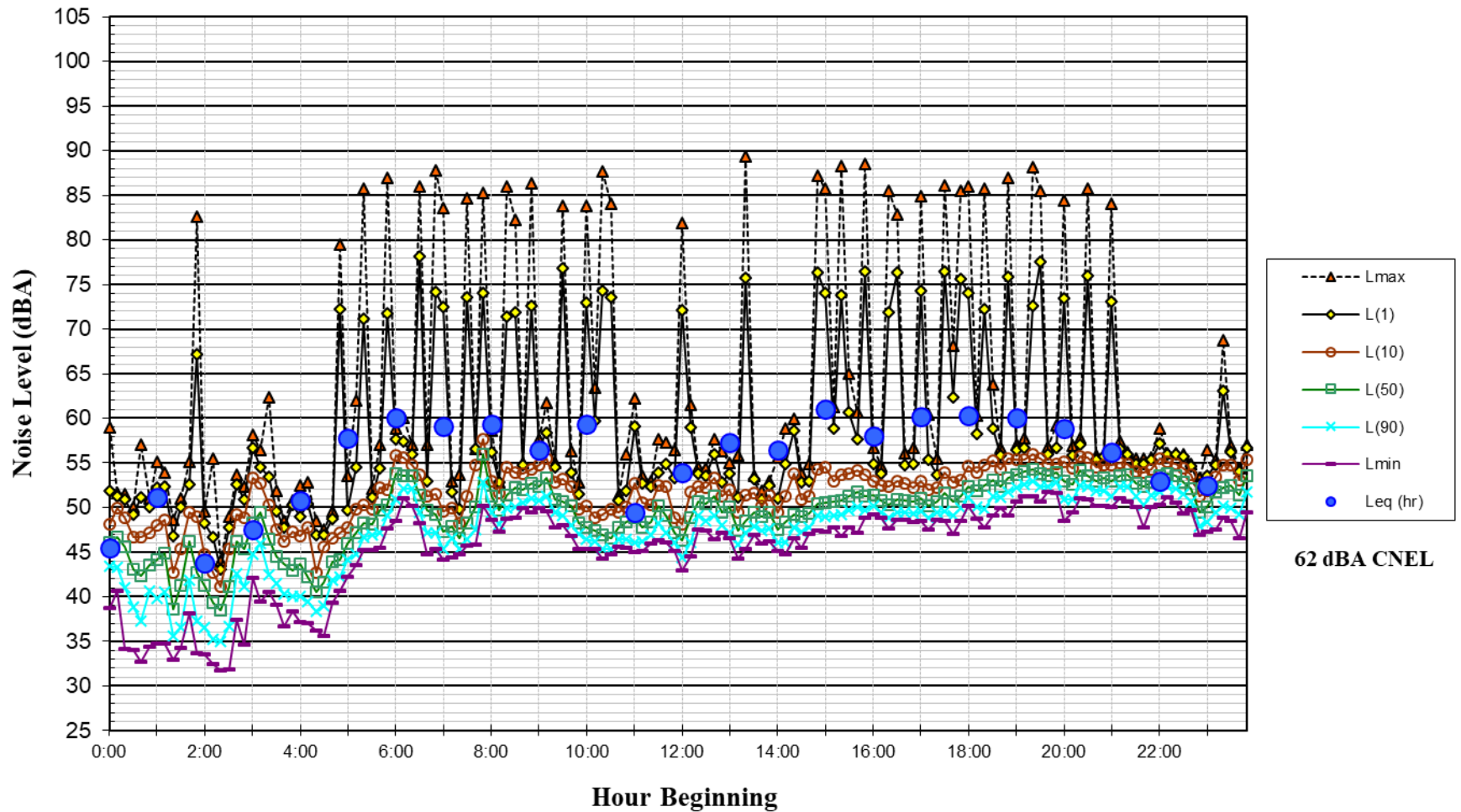


Figure 4

**Noise Levels at Noise Measurement Site LT-1
~23' from Centerline of Railroad Tracks
Saturday, April 27, 2019**

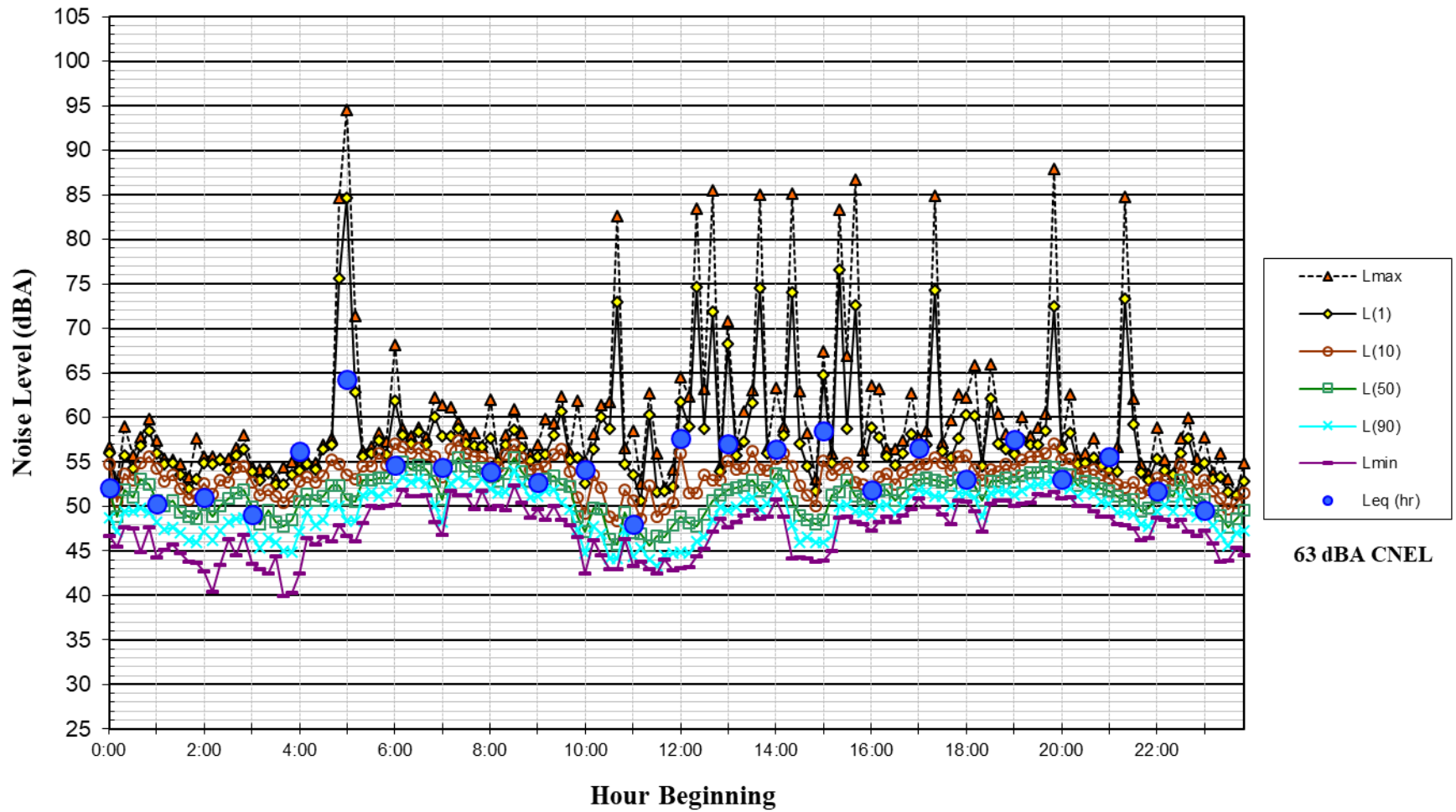


Figure 5

Noise Levels at Noise Measurement Site LT-1 ~23' from Centerline of Railroad Tracks Sunday, April 28, 2019

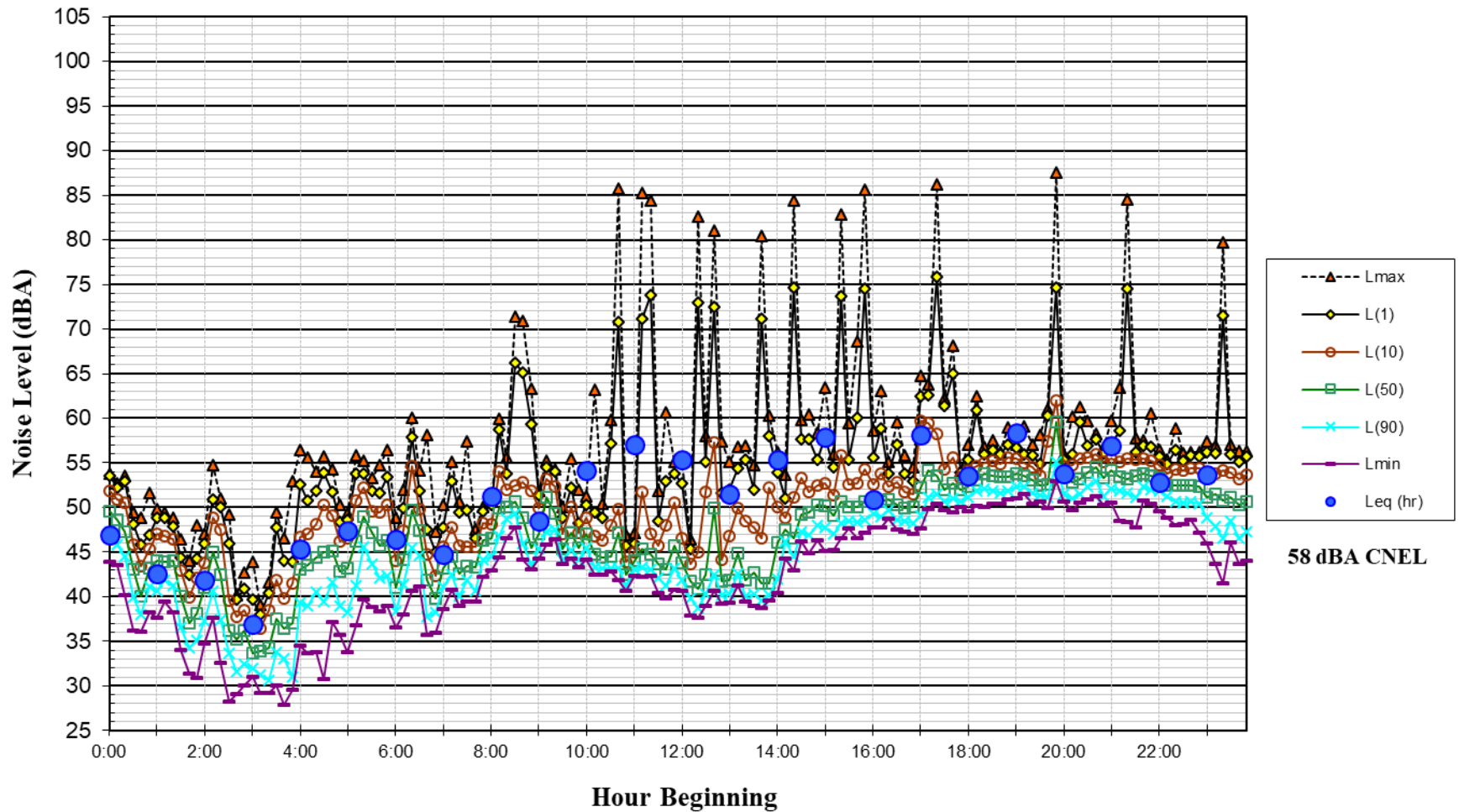


Figure 6

**Noise Levels at Noise Measurement Site LT-1
~23' from Centerline of Railroad Tracks
Monday, April 29, 2019**

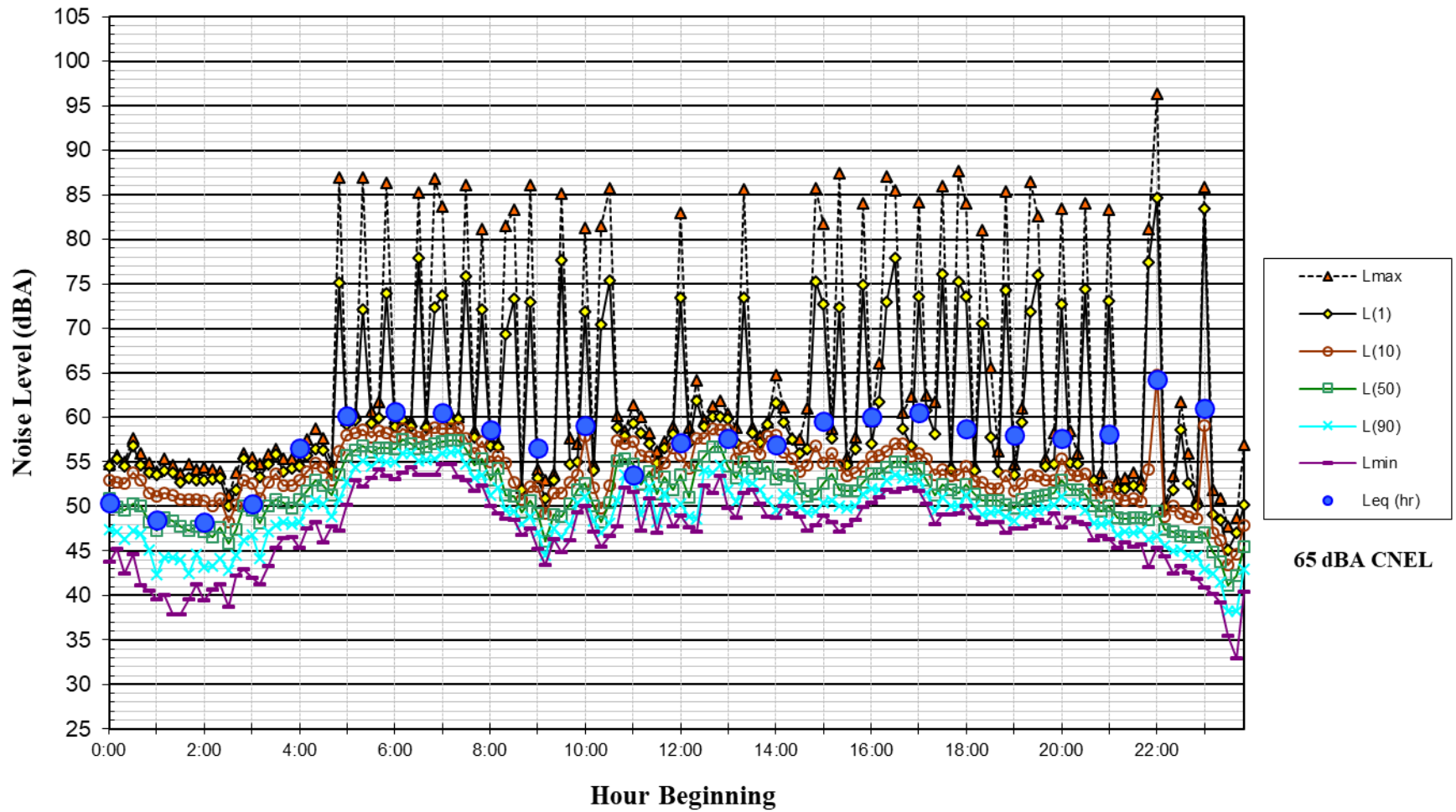


Figure 7

**Noise Levels at Noise Measurement Site LT-1
~23' from Centerline of Railroad Tracks
Tuesday, April 30, 2019**

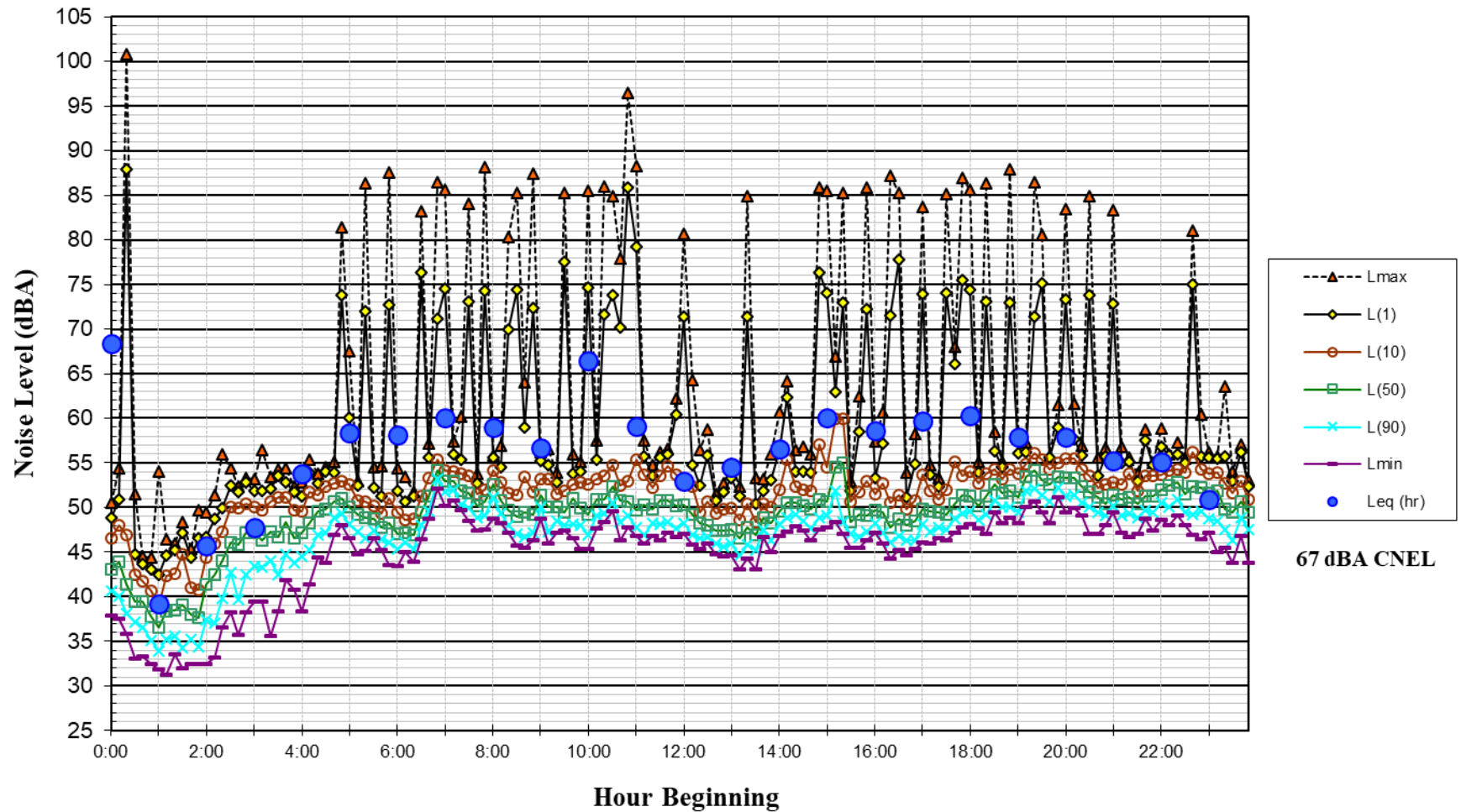


Figure 8

**Noise Levels at Noise Measurement Site LT-1
~23' from Centerline of Railroad Tracks
Wednesday, May 1, 2019**

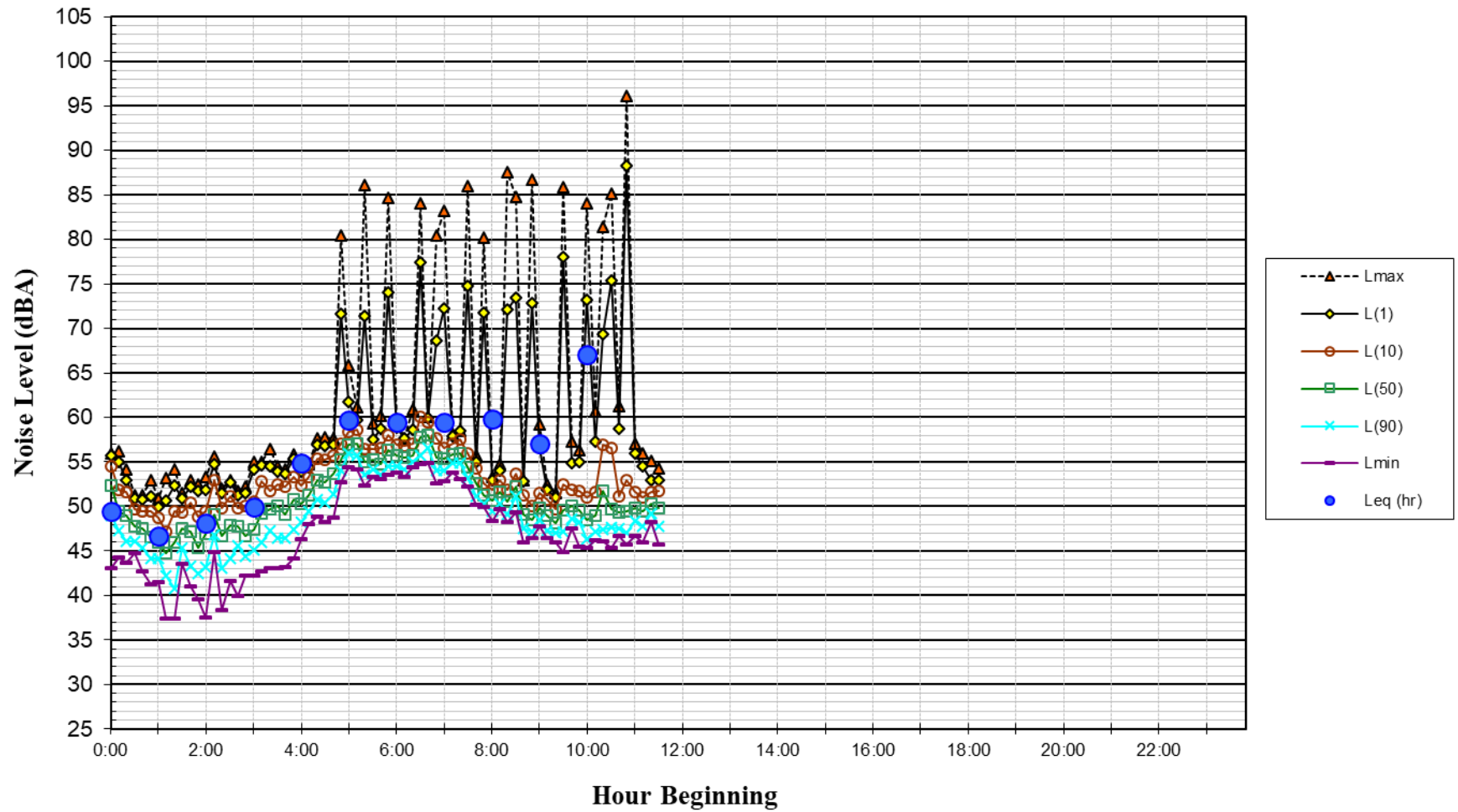


Figure 9

**Noise Levels at Noise Measurement Site LT-2
~105' from Centerline of Graylawn Avenue
Wednesday, April 24, 2019**

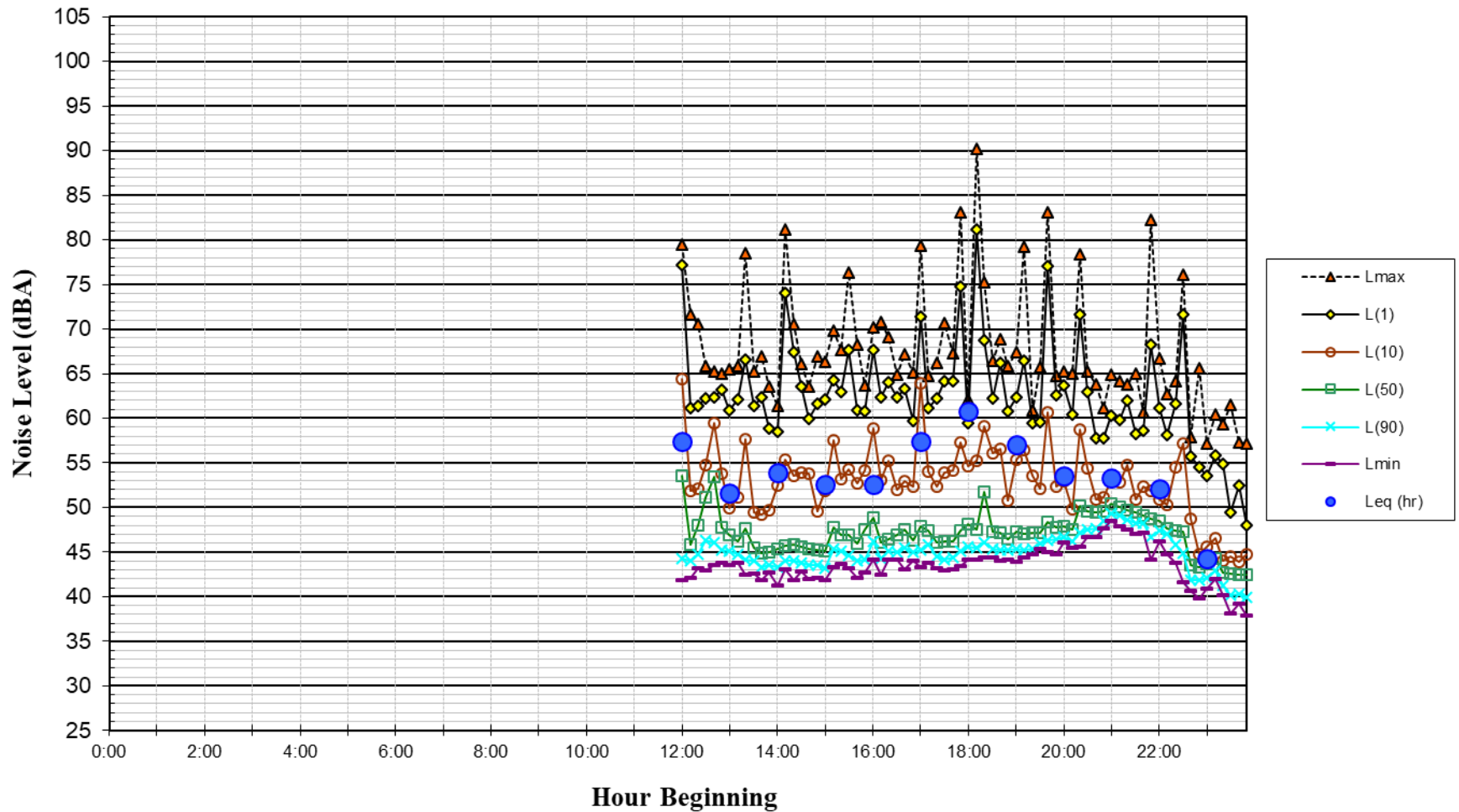


Figure 10

**Noise Levels at Noise Measurement Site LT-2
~105' from Centerline of Graylawn Avenue
Thursday, April 25, 2019**

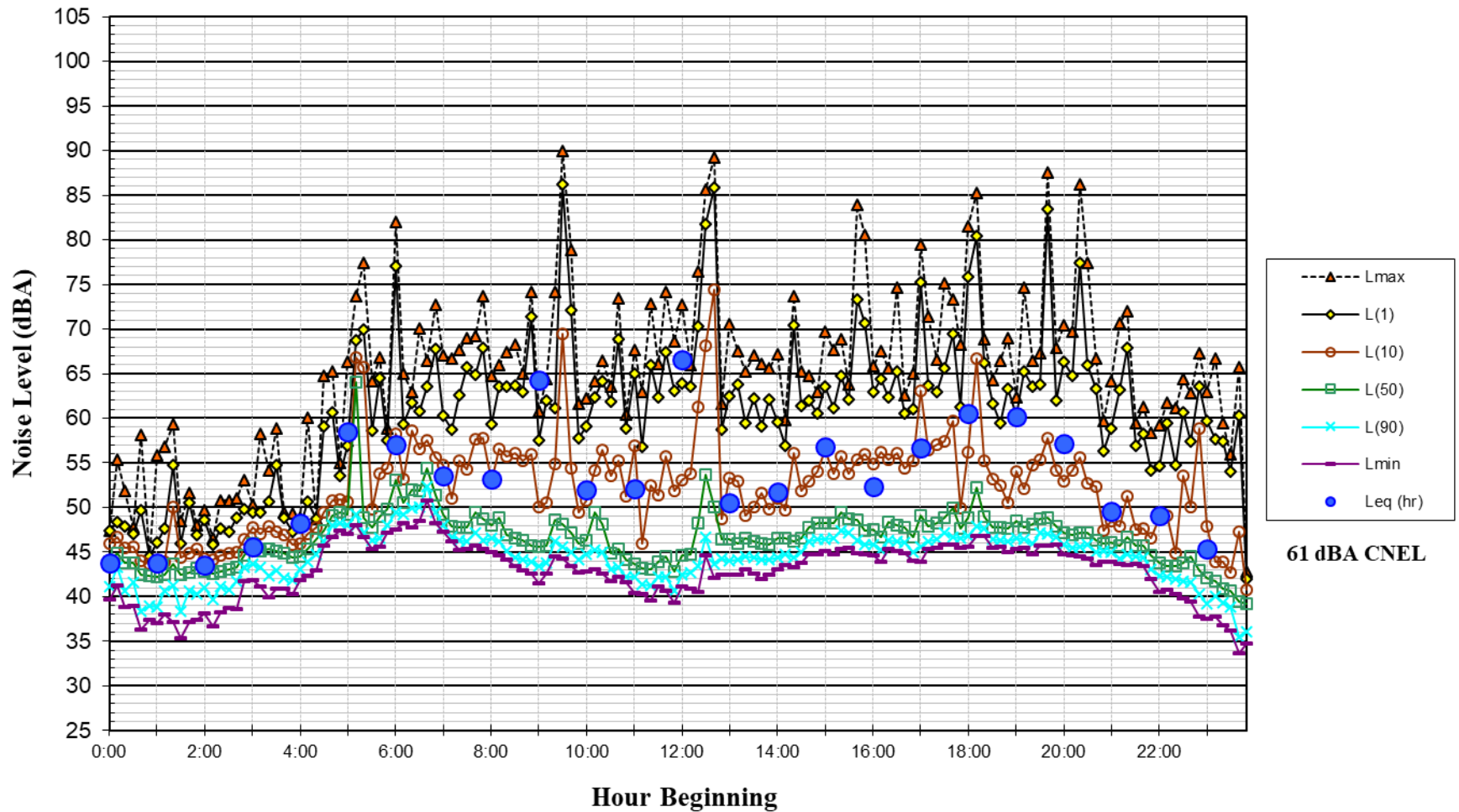


Figure 11

Noise Levels at Noise Measurement Site LT-2 ~105' from Centerline of Graylawn Avenue Friday, April 26, 2019

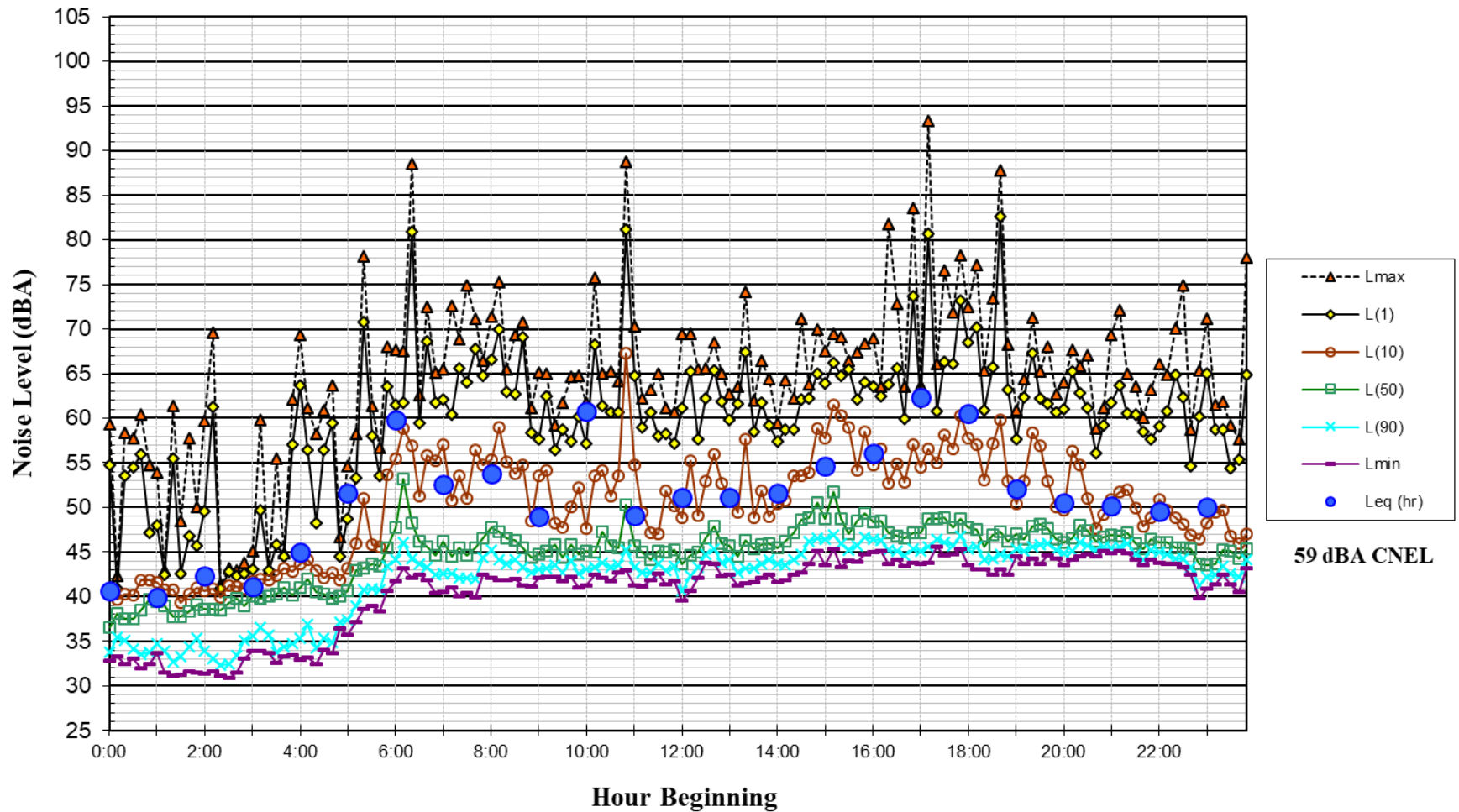


Figure 12

**Noise Levels at Noise Measurement Site LT-2
~105' from Centerline of Graylawn Avenue
Saturday, April 27, 2019**

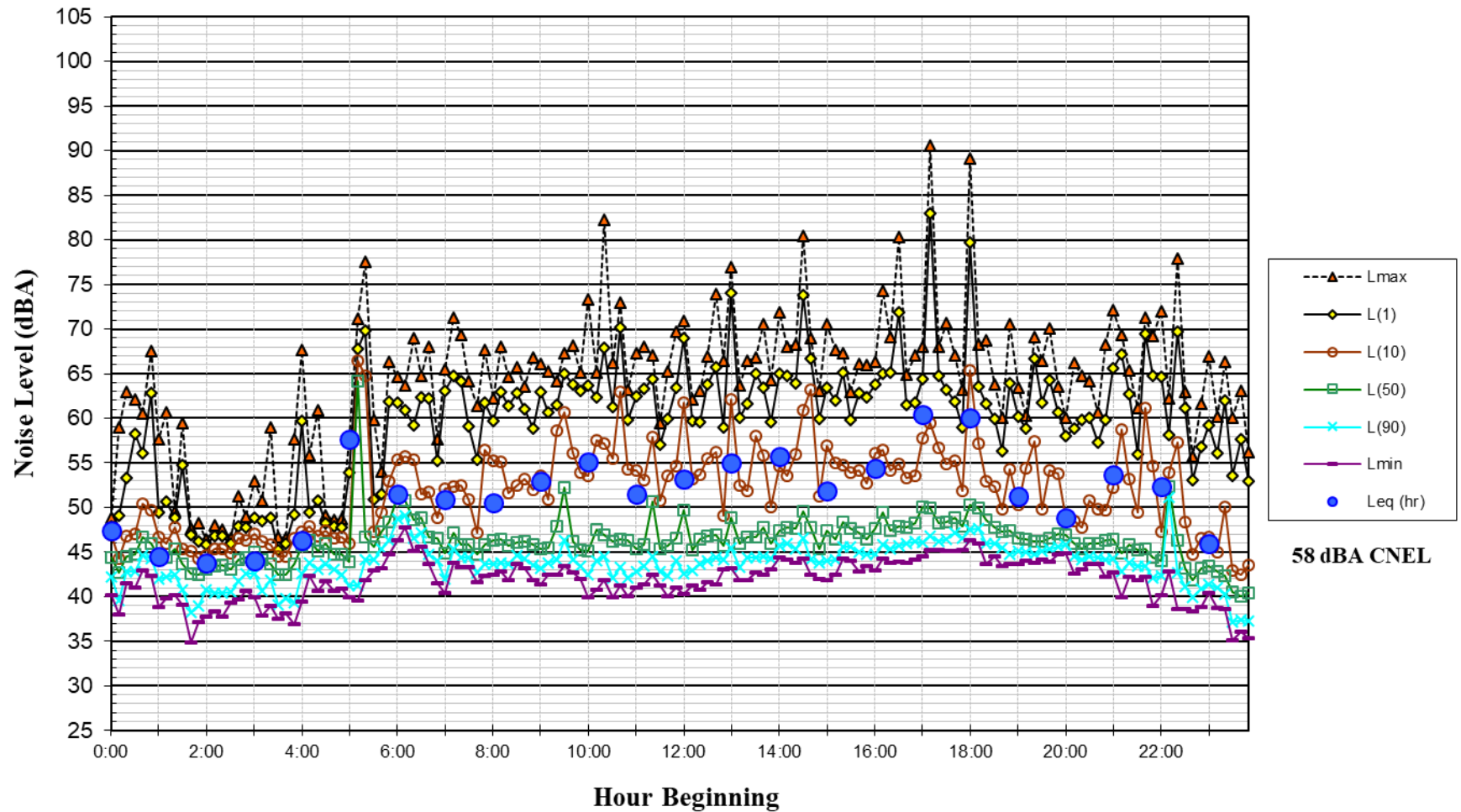


Figure 13

**Noise Levels at Noise Measurement Site LT-2
~105' from Centerline of Graylawn Avenue
Sunday, April 28, 2019**

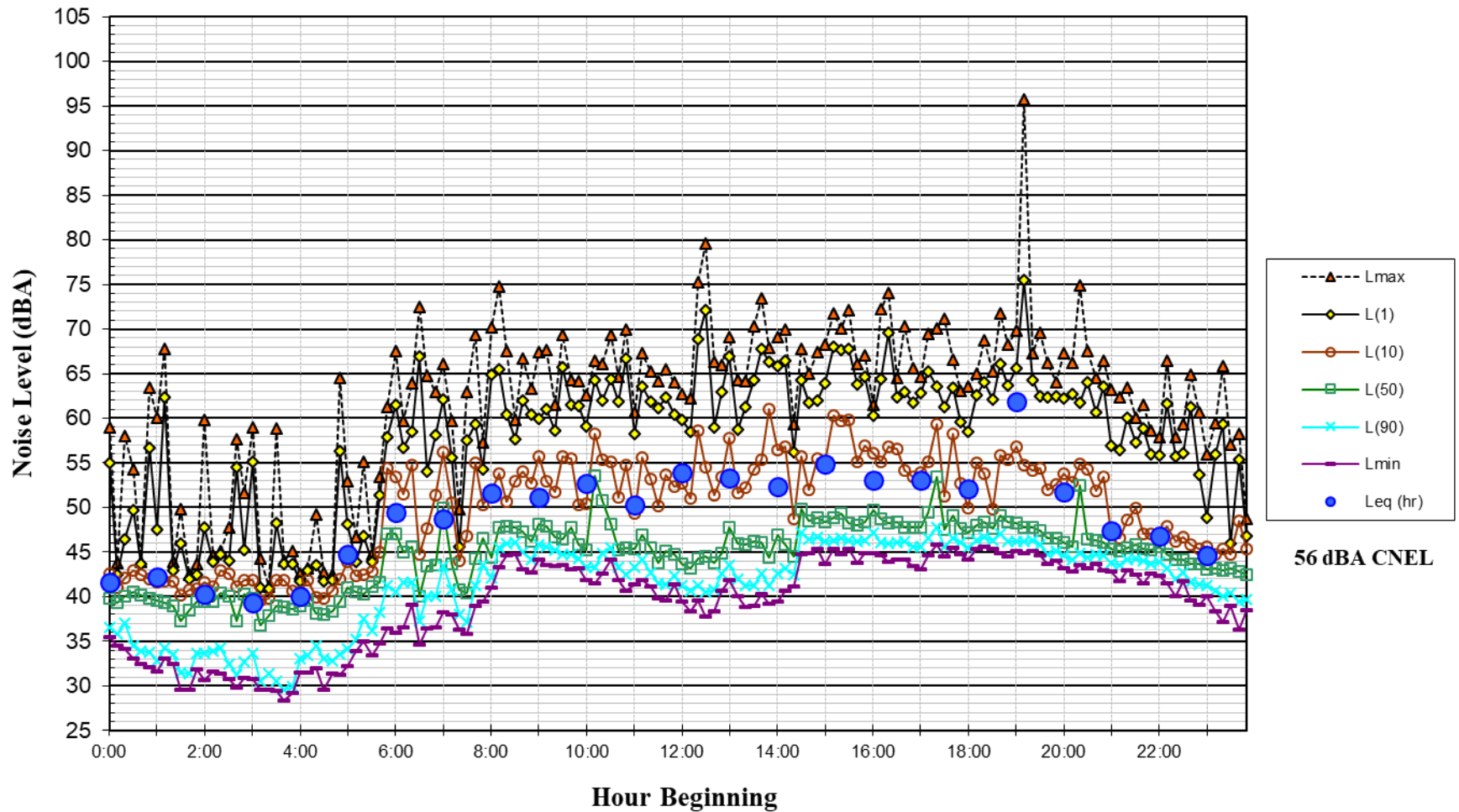


Figure 14

**Noise Levels at Noise Measurement Site LT-2
~105' from Centerline of Graylawn Avenue
Monday, April 29, 2019**

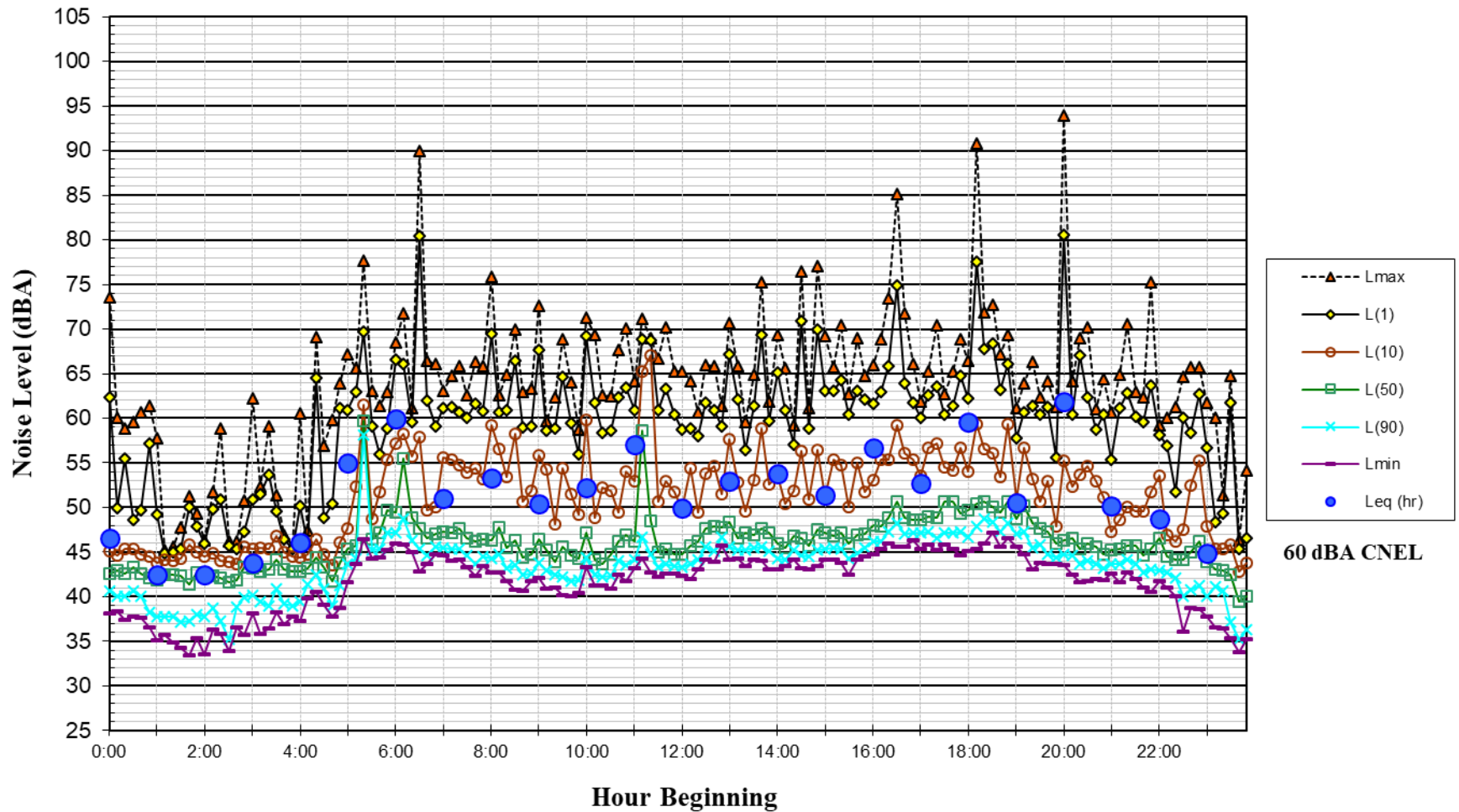


Figure 15

**Noise Levels at Noise Measurement Site LT-2
~105' from Centerline of Graylawn Avenue
Tuesday, April 30, 2019**

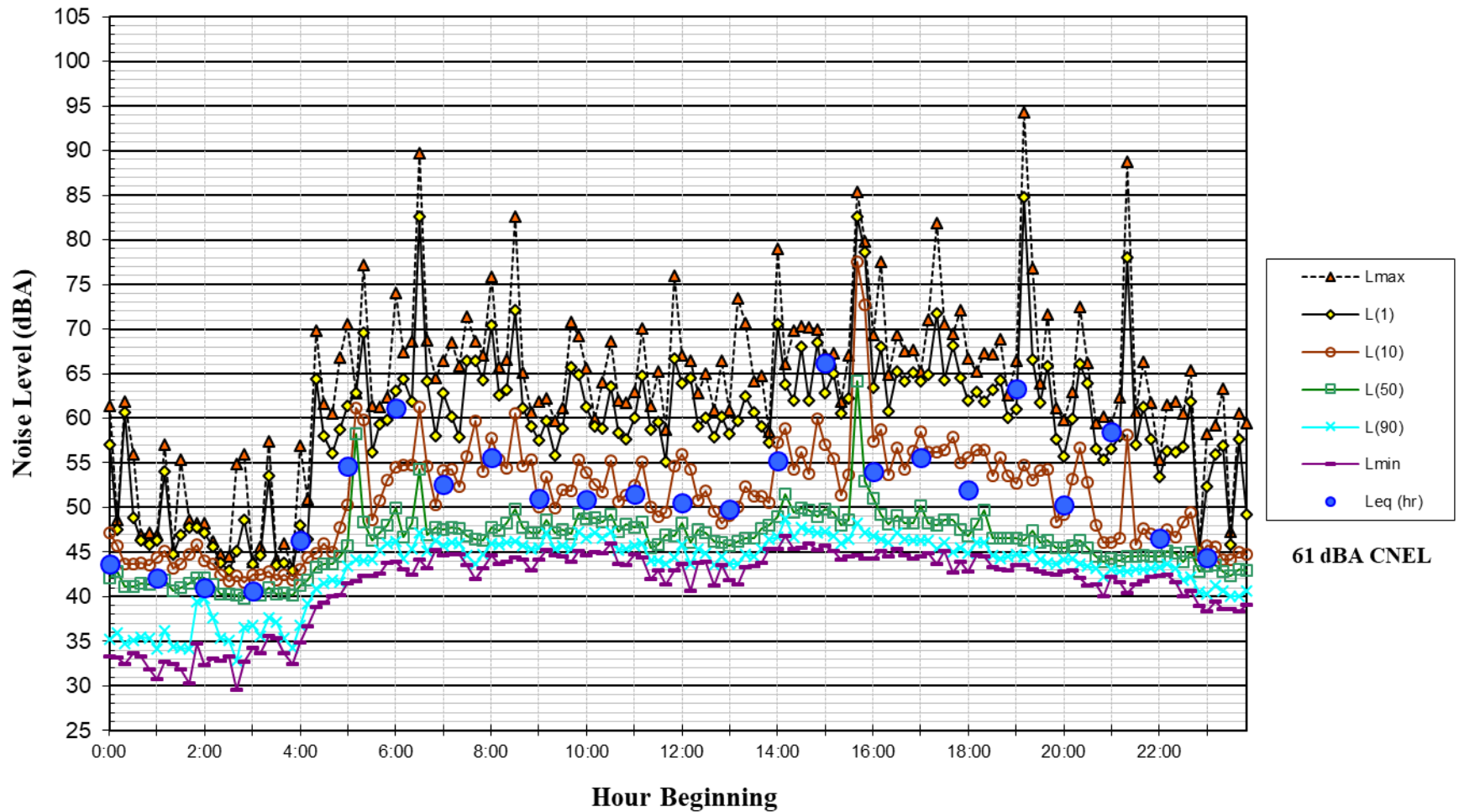


Figure 16

**Noise Levels at Noise Measurement Site LT-2
~105' from Centerline of Graylawn Avenue
Wednesday, May 1, 2019**

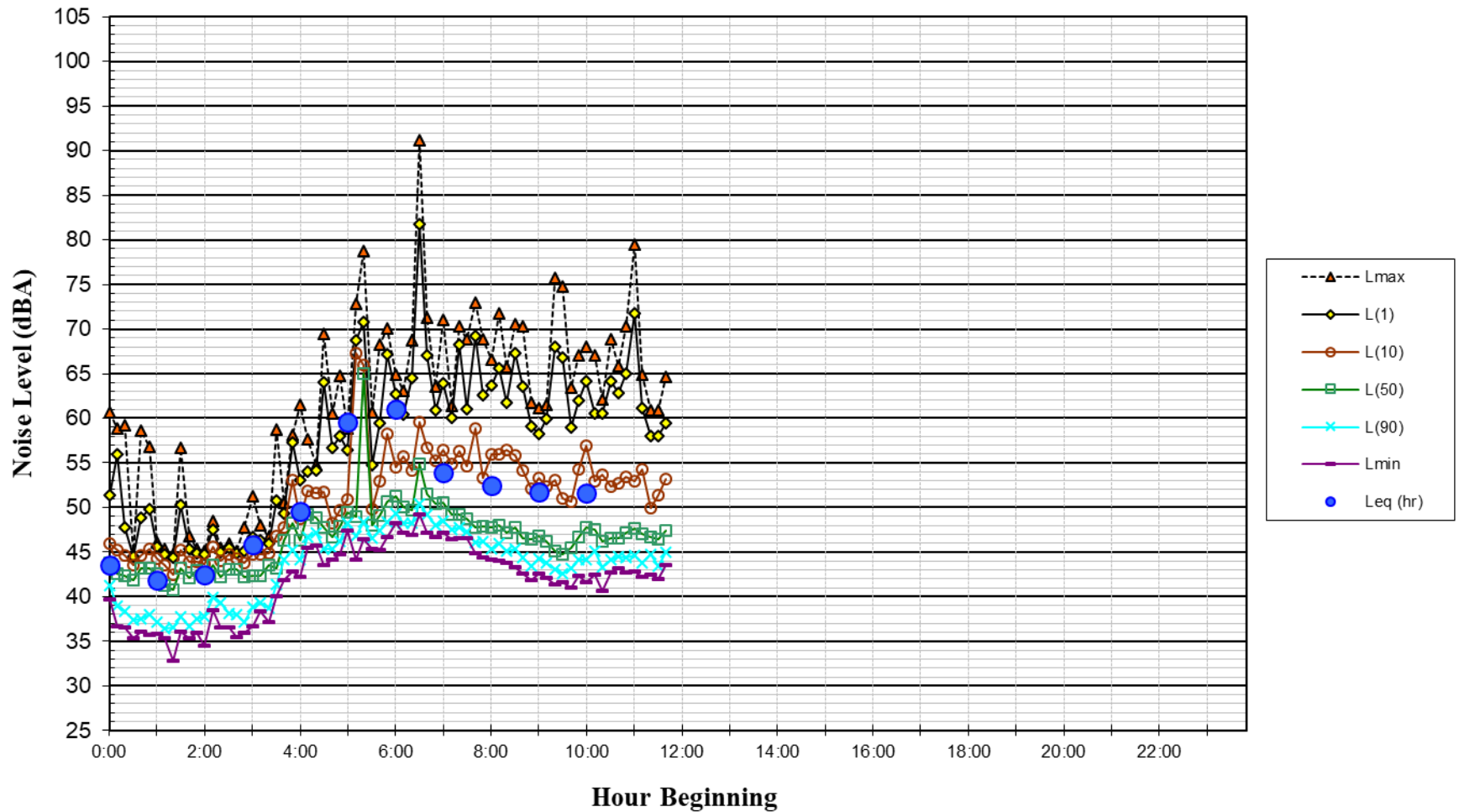


Figure 17

SMART Train Vibration Levels Site V-1 ~ 54 feet from Center of the Track

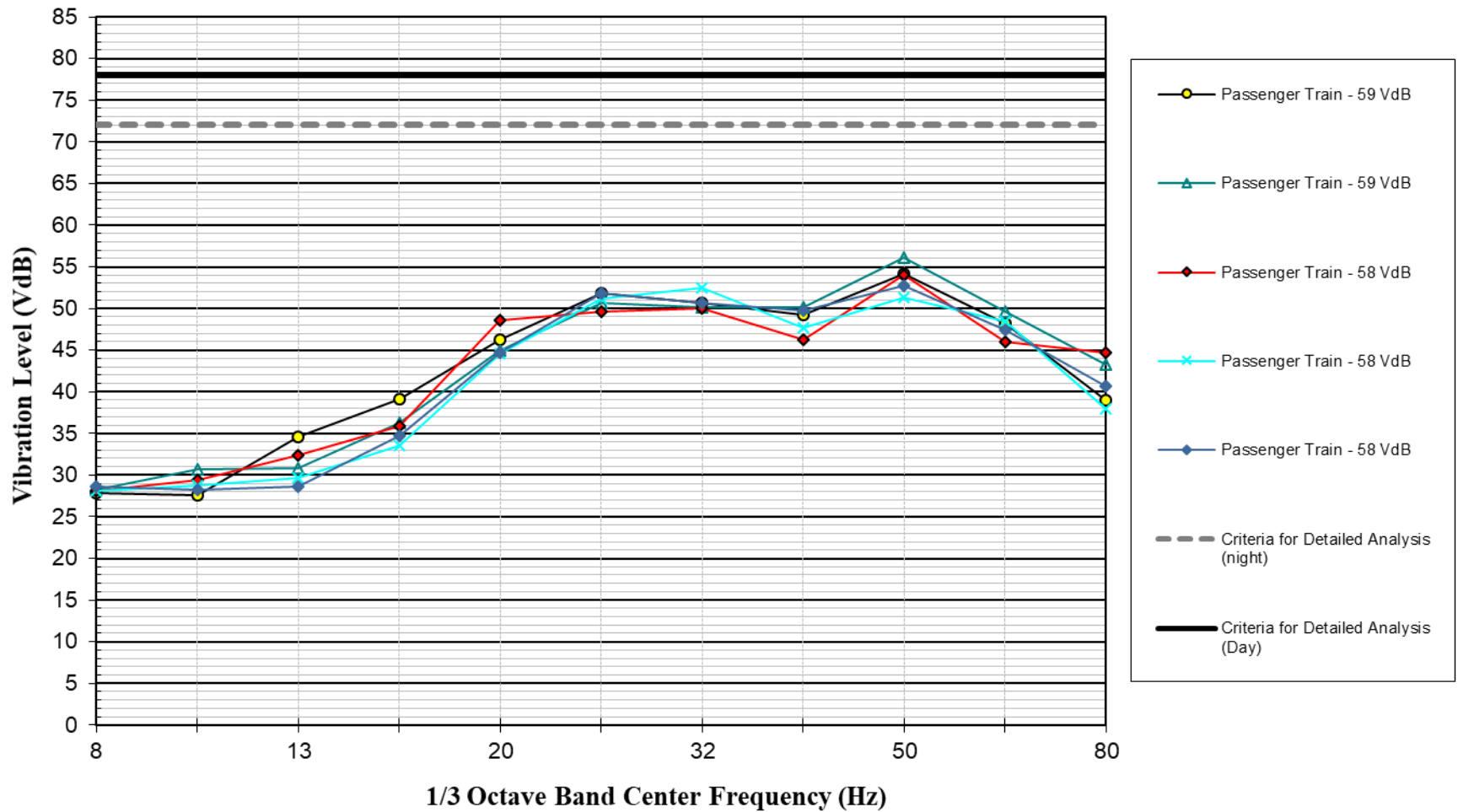


Figure 18