Planning & Transportation Commission

Staff Report (ID # 10340)

Report Type: Action Items **Meeting Date:** 6/12/2019

Summary Title: Newell Road Bridge Replacement Project

Title: PUBLIC HEARING. Newell Road Bridge Replacement Project [19PLN-00130]: Review the Environmental Impact Report, and Make a Recommendation to City Council on a Preferred Alternative, for Demolition of an Existing Two-Way Bridge On Newell Road Between Woodland Avenue in East Palo Alto and Edgewood Drive in Palo Alto and Construction of a New Bridge Along the Same Alignment. An Environmental Impact Report (EIR)/Environmental Assessment (EA) was Circulated on May 31, 2019 for a 60 Day Comment Period That Will End on July 30, 2019 in Accordance With the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). Zoning District: Not Applicable (Public right-of-Way) adjacent Single-Family Residential (R-1[10,000]). For More Information Contact the Project Planner Claire Hodgkins at Claire.Hodgkins@cityofpaloalto.org

From: Jonathan Lait

Recommendation

Staff recommends the Planning and Transportation Commission (PTC) take the following action(s):

1. Review the Project Plans and the Environmental Impact Report/Environmental Assessment in Attachment F and make a recommendation to Council on a preferred alternative.

Report Summary

The City of Palo Alto and Caltrans as the lead agencies under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), respectively, have released a Draft Environmental Impact Report (EIR)/Environmental Assessment (EA) for the Newell Road

Bridge Project. The Newell Road Bridge Project includes replacement of a bridge that was originally constructed in 1911 with a new bridge in the same alignment. The new bridge is designed to meet Caltrans standards, particularly for multi-modal options over San Francisquito Creek at this crossing. The new bridge will also be designed to allow for greater flow capacity beneath the bridge during storm events, reducing the potential for flooding during larger storm events.

For the purposes of both CEQA and NEPA, the environmental analysis describes in detail a full project description and impacts associated with the No Build Alternative as well as four potential build alternatives. These include:

- **Build Alternative 1: A one-lane bridge with two-way traffic (under signal control) on the existing alignment of Newell Road**
- **Build Alternative 2 (LPA): A two-lane bridge on the existing alignment of Newell Road.**
- **Build Alternative 3: A two-lane bridge on a partial realignment (offset) of Newell Road.**
- **Build Alternative 4: A two-lane bridge on a full realignment (offset) of Newell Road.**

In addition, for the purposes of CEQA, the City of Palo Alto, in coordination with the City of East Palo Alto selected Alternative 2 as the locally preferred alternative. This is presented as the proposed project and was also determined to be the environmentally superior alternative. The project plans presented in Attachment F reflect the proposed project but also provide a basic site plan for informational purposes showing the alignment under Build Alternatives 1, 3, and 4.

The purpose of this agenda item is to provide the PTC with an overview of the proposed project, to allow an opportunity for the PTC to provide feedback on the Draft EIR/EA, and to make a recommendation to Council on a preferred alternative.

Background

Project Information

Owner:	City of Palo Alto
Engineer:	NV5
Representative:	City of Palo Alto, Public Works Engineering
Legal Counsel:	City of Palo Alto Attorney's Office

Property Information

Address:	Public right-of-way
Neighborhood:	Crescent Park
Lot Dimensions & Area:	N/A
Housing Inventory Site:	No
Located w/in a Plume:	No
Protected/Heritage Trees:	Yes; see discussion below

Historic Resource(s):	None; see discussion below
Existing Improvement(s):	Reinforced concrete girder bridge constructed in 1911
Existing Land Use(s):	Public Street Right-of-Way
Adjacent Land Uses & Zoning:	North: High Density Residential land use; Multi-family residential Zoning (R-HD-5) in East Palo Alto West: San Francisquito Creek East: San Francisquito Creek South: Single Family Residential land use; R-1 (10,000) Zoning
Special Setbacks:	None

Aerial View of Property:

Source: Google Maps

Land Use Designation & Applicable Plans/Guidelines

Zoning Designation:	Not Applicable. Public Right-of-Way; Adjacent properties Zoned R-1(10,000) in Palo Alto and Multi-family Residential in East Palo Alto
Comp. Plan Designation:	Single-family Residential in Palo Alto; High Density Residential in East Palo Alto
Context-Based Design:	Not Applicable
Downtown Urban Design:	Not Applicable
SOFA II CAP:	Not Applicable
Baylands Master Plan:	Not Applicable
ECR Guidelines ('76 / '02):	Not Applicable

Proximity to Residential Uses or Districts (150'):	Applicable
Located w/in AIA (Airport Influence Area):	Not Applicable

Prior City Reviews & Action

City Council:	Staff provided an informational report to Council on the proposed project on May 6, 2019. A copy of the report can be found here: https://www.cityofpaloalto.org/civicax/filebank/documents/70925
PTC:	None
HRB:	None
ARB:	The ARB held a study session on November 1, 2012; however, the bridge design proposed at that time included realignment of the bridge. Based on comments received from the public at that hearing and other community meetings at that time, the City chose to analyze the project through a full EIR process and has since revised the design of the proposed project. A new Planning application has also been filed and no hearings have been held for the current proposed project design, which includes replacement of the bridge along the same alignment as the existing bridge.

Project Description

The existing Newell Road Bridge is a 76 foot long, reinforced concrete girder structure spanning 22 feet. It functions as a two-lane bridge; however, since the curb to curb width is only 18 feet, this two-lane bridge is considered substandard. There are no sidewalks for pedestrian access, and there are no dedicated bicycle lanes or signage on the bridge. In addition, the abutments for the bridge are located partially within the creek bank, which restricts the flow in this area to 6,600 cubic feet per seconds (cfs).

The California Department of Transportation (Caltrans) inspected the bridge (bridge number 37C-0223) as part of their statewide local bridge inspection program and determined that it does not meet current state standards for vehicle access or multi-modal access. Specifically, the existing bridge does not comply with the following geometric design standards:

- Roadway Section: The standard minimum width configuration is two 11-foot wide lanes plus separate 5-foot bicycle lanes or two 14-foot “sharrow” lanes (shared bicycle/vehicle lanes).
- Vertical Alignment: Current standards require smooth, gradual vertical curves between grade differences. The bridge approach has a steep grade (up to seven percent) that reduces the length of roadway a driver can see entering or leaving the bridge and reduces the response time for drivers to respond to conditions in front of their vehicle.
- Stopping Sight Distance: At the intersection of Newell Road and Woodland Avenue, the sight distance is limited by the existing bridge barriers and flood walls. Under

existing conditions, the stopping sight distance can only accommodate a speed of 15 miles per hour.

As a result, Caltrans deemed the bridge functionally obsolete and added the bridge to the Federal State Transportation Improvement Program (FTIP) on April 18, 2011. Once a project is placed on the FTIP it becomes eligible to receive federal funding and subject to federally required action. The project description in the FTIP for this bridge is to "replace [an] existing two-lane bridge with a new two-lane bridge conforming to current standards."

In addition to providing a new bridge that conforms to current Caltrans standards for vehicle access and multi-modal access, this bridge replacement project would provide natural flood protection for residents, businesses, and visitors, preserve flood capacity, and reduce flood risks in flood-prone areas as set out in Santa Clara Valley Water District (SCVWD) Governance Policies 1.4 and E-3. Specifically, the existing Newell Road Bridge abutments encroach into the creek bed and create a flow constriction in the channel. The redesign would place the supports outside of the creek channel, thus increasing the hydraulic creek capacity in this area. For these reasons, the SCVWD agreed to provide the local match, for the bridge design, supplementing the funding from Caltrans. The applicant's project description is included in Attachment D.

Alternatives Evaluated

The environmental analysis describes in detail a full project description and impacts associated with the No Build Alternative as well as four potential build alternatives. Under all of these alternatives, except the No Build Alternative, the new bridge would be raised approximately 1.6 feet higher than the existing bridge to increase flow capacity, allowing for a 50-year storm event (7,500 cubic feet per second [cfs]) to pass. Newell Road on both the Palo Alto and East Palo Alto side as well as Woodland Road on the East Palo Alto side would be raised in order to meet the higher profile of the bridge and to eliminate the existing steep grade and sight barriers, which reduce line of site for vehicles and are inconsistent with Caltrans' current geometric design standards. To accommodate the raised roadway, retaining walls varying between 1 foot and 4.75 feet in height would be required along the north side of Woodland Avenue and both sides of Newell Road under all build alternatives. The south side of Woodland Avenue would use the existing flood wall to support the raised roadway.

Build Alternative 2 (proposed project)

Under Build Alternative 2, the existing bridge would be replaced with a new two-lane bridge along the existing alignment of Newell Road. The new bridge would include two 14-foot-wide shared lanes (vehicles and bicycles) and five-foot-wide sidewalks on either side.

Build Alternative 1

Under Build Alternative 1, the existing bridge would be replaced with a new one-lane bridge with two-way signal-controlled traffic along the existing bridge alignment. Bicycle access across the bridge would be via a shared vehicle/bicycle lane and would be subject to the traffic signal control for the bridge. Complete signalization of the intersections of Newell Road with

Woodland Avenue and Edgewood Avenue would be required to control the direction of travel on the bridge and adjacent roadways. One additional signal would also be provided for the sole residential driveway on the Palo Alto side of the bridge to indicate the direction of traffic on Newell Road at all times.

Build Alternative 3
Under Build Alternative 3, the existing bridge would be replaced with a two-lane bridge, consistent with that proposed under Alternative 2, but on a partial realignment of Newell Road. Specifically, Newell Road south of Woodland Avenue would be partially realigned (approximately 30 feet) so that the degree of offset between the existing north and south intersections with Woodland Avenue would be reduced compared to the existing condition.

Build Alternative 4
Under Build Alternative 4 the existing bridge would be replaced with a two-lane bridge, consistent with that proposed under Alternatives 2 and 3, but on a full realignment of Newell Road. Specifically, Newell Road south of Woodland Avenue would be fully realigned (approximately 90 feet) to eliminate the offset between the existing north and south intersections with Woodland Avenue. This would provide a standard four-way intersection at Newell Road and Woodland Avenue. Approximately 100 additional feet of retaining wall would be required along the north side of Woodland Avenue and both sides of Newell Road Bridge in comparison to the other three build Alternatives.

No Build Alternative
Under the No-Build (No-Action) Alternative, no changes would be made to the existing bridge and approaches. No construction activities would occur, and there would be no change in the operations of the existing facilities. Other planned and approved land use development and transportation improvements along local routes may be implemented by local agencies or under other projects. Under the No-Build Alternative, the flooding issue along the creek would also not be addressed. The existing bridge flow that can pass under is 6,600 cfs, which is not sufficient to handle the natural creek flow of 7,500 cfs. If upstream improvements are completed, flows exceeding 6,600 cfs would not be able to pass under the existing bridge, resulting in flooding upstream of the Newell Road Bridge.

Selection of the Locally Preferred Alternative
Alternative 2 was selected as the locally preferred alternative for several reasons. In particular, Palo Alto, in coordination with East Palo Alto as a responsible agency, selected the locally preferred alternative because it was determined to be the environmentally preferred alternative as detailed in the EIR/EA, it is anticipated to require lower retaining walls overall, it minimizes utility relocations (doesn't require new street lights), it maintains the maximum number of existing (unmarked) street parking spaces during and post construction, and it limits the overall cost and scope associated with the project, while still achieving the project objectives. For these reasons, this alternative is presented as the proposed project for the purposes of CEQA. The analysis below reflects the proposed project.

Analysis[1]

The project includes modifications to a bridge and City streets within the public right-of-way and therefore is not subject to zoning and land use restrictions for any specific zone district or land use designation. However, the project has been evaluated to ensure the design meets the intent and objectives of the Code and is consistent with the Comprehensive Plan, the Bicycle and Pedestrian Transportation Plan, and other City policies. A thorough analysis of the project's consistency with the AR findings will be completed prior to a formal hearing with the ARB. At this time, staff is seeking input from the PTC to support the formal application that will move forward to the ARB and Council as well as feedback on the environmental analysis. Staff is requesting that the PTC recommend a preferred alternative to Council based on their review.

Neighborhood Setting and Character

The proposed project is located in an area characterized by low density residential on the southwest side of San Francisquito Creek within the City of Palo Alto and high density residential on the northeast side of San Francisquito Creek within the City of East Palo Alto.

Consistency with the Comprehensive Plan, Area Plans and Guidelines[2]

The Comprehensive Plan includes Goals, Policies, and Programs that guide the physical form of the City. The Comprehensive Plan land use designation for the project site is Single family residential for portions of the project within Palo Alto. The single family residential land use designation applies to residential neighborhoods primarily characterized by detached single-family homes, typically with one dwelling unit on each lot where population densities range from 1 to 30 person per acre.

A detailed review of the project's consistency with goals and policies outlined in the Comprehensive Plan is provided in Attachment B. The project is consistent with the relevant policies in the Comprehensive Plan and therefore fulfills the goals of the Plan.

Zoning Compliance[3]

As noted above, infrastructure work located within the public right-of-way would not subject to the restrictions of a specific zoning designation. Adjacent residences within the City of Palo Alto are zoned single family residential (R-1[10,000]) and adjacent residences within the City of East Palo Alto are zoned Multiple family High Density Residential (R-HD-5). Work on these private properties would include minor changes in order to accommodate the raised roadway and associated retaining walls. The proposed modifications on these properties would not affect compliance with zoning requirements for on any of these properties and the project overall

[1] The information provided in this section is based on analysis prepared by the report author prior to the public hearing. Planning and Transportation Commission in its review of the administrative record and based on public testimony may reach a different conclusion from that presented in this report and may choose to take an alternative action from the recommended action.

[2] The Palo Alto Comprehensive Plan is available online: http://www.cityofpaloalto.org/gov/topics/projects/landuse/compplan.asp

[3] The Palo Alto Zoning Code is available online: http://www.amlegal.com/codes/client/palo-alto_ca

would not conflict with any requirements of the Zoning Ordinances in either Palo Alto or East Palo Alto.

Multi-Modal Access & Parking

As discussed in Attachment B, the proposed project is consistent with the Bicycle and Pedestrian Transportation Plan (BPTP). Specifically, the project is designed to improve multi-modal transportation by providing safer access over the creek for pedestrians and bicyclists while also resolving the steep grade separation between the bridge and adjacent roadways, which currently reduces line of sight when entering and leaving the bridge. The BPTP includes policies such as Policy T-5, which indicates that when modifying roadways, the City should plan for usage of the roadway space by all users, including motor vehicles, bicyclists, and pedestrians. It is also consistent with general goals to encourage alternate modes of transportation and Objective 4 of the BPTP to "plan, construct, and maintain complete streets that are safe and accessible to all modes and people of all ages and disabilities." The project is not located on a Safe Routes to School path.

Construction

Closure of the existing Newell Road Bridge would cause traffic to be diverted to other bridge crossings (e.g. West Bayshore Road to/from Embarcadero Road or Channing Avenue, Pope Chaucer, or Middlefield Road). An analysis was conducted to assess impacts of redirected traffic. It is assumed that approximately 50 percent of the trips that use the Newell Road Bridge crossing under existing conditions would be diverted to the University Avenue crossing, which is the closest alternative crossing between East Palo Alto and Palo Alto. This percentage was based on professional judgement using reasonable assumptions as to how trips may be diverted depending on their potential origin and destination. It is assumed that the remaining trips would generally be dispersed at other existing creek crossings. Because these other trips would be dispersed to several other intersections, the total number of additional trips in any one direction at each of these intersections would be nominal. However, the addition of 50 percent of trips at University Avenue was analyzed to determine whether a temporary impact would occur at this intersection due to the closure of Newell Road Bridge during construction. Based on the LOS and delay analysis conducted, the closure of Newell Road Bridge during construction would cause the East Crescent Drive/University Avenue intersection to operate at unacceptable LOS E (where it currently operates at LOS D) during the p.m. peak hour. It would also cause a delay of more than 4 seconds during the a.m. peak hour (where this intersection already operates at unacceptable LOS F during the a.m. peak hour). Therefore, this would result in a significant and unavoidable impact under CEQA during construction for the proposed project as well as all other build alternatives.

Opening Year Scenario

Under the opening year (Year 2020) scenario, all of the study intersections operate within applicable jurisdictional standards of the City of Palo Alto (LOS D or better) during the a.m. and p.m. peak hours, with the exception of the University Avenue/East Crescent Drive intersection, which is anticipated to operate at LOS F during the a.m. peak hour and LOS E during the p.m. peak hour under the No Build Alternative. In most cases, the proposed project would have no

effect on the level of service (no change or less than .1 seconds change in delay) in comparison to the No Build Alternative. At some intersections the project would reduce delay in comparison with the No Build Alternative. Specifically, at the University Avenue/East Crescent intersection, the delay would be reduced under the proposed project during both the a.m. and p.m. peak hours. During the p.m. peak hour, the project would result in the intersection operating at an acceptable level of LOS D in comparison to the No Build Scenario, where it would operate at an unacceptable level of LOS E.

Design (Future) Year Scenario

Under the design year (Year 2040) scenario, all of the study intersections operate within applicable jurisdictional standards of the City of Palo Alto (LOS D or better) during the a.m. and p.m. peak hours, with the exception of the University Avenue/Woodland Drive and University Avenue/East Crescent Drive intersections. The University Avenue/Woodland Drive and University Avenue/East Crescent Drive intersections operate at LOS E or worse during the a.m. and p.m. peak hours for all study alternatives, including the No Build Alternative. Similar to the Year 2020 scenario, the proposed project would have no effect on level of service and in some cases would reduce delay in comparison to the No Build Alternative.

TIRE Analysis

A Traffic Infusion on Residential Environment (TIRE) analysis was conducted to determine whether the proposed project would result in additional traffic being diverted through these residential streets as a result of the project. The analysis concluded that under the 2020 and 2040 scenario the project would be not result in any change to the TIRE index of any of the adjacent streets, including nearby segments of Edgewood Drive, Newell Road, and Woodland Avenue.

Environmental Review

The subject project has been assessed in accordance with the authority and criteria contained in the California Environmental Quality Act (CEQA), the State CEQA Guidelines, the National Environmental Policy Act (NEPA) and the environmental regulations of the City. Specifically, an Environmental Impact Report/Environmental Assessment (EIR/EA) was prepared in accordance with CEQA and NEPA for the Newell Road Bridge Replacement Project and was circulated on May 31, 2019 beginning a 60 day circulation period, which will end on July 30, 2019. The City of Palo Alto and Caltrans are serving as the lead agencies in accordance with CEQA and NEPA, respectively. The CEQA conclusions for each resource area are provided in Chapter 3 of the EIR/EA. The EIR/EA concluded that most impacts would either be less than significant or less than significant with the implementation of mitigation measures. However, the City and Caltrans, in coordination with TJKM Traffic Engineers, analyzed traffic impacts associated with construction and operation of the proposed bridge. This technical report is included in Attachment E. Technical appendices associated with the traffic analysis can be found on the project website, which is provided in the link in Attachment F, and provided on a CD to commissioners. As summarized in the technical report prepared by TJKM and in Chapter 2.1.4, Transportation, as well as Chapter 3 of the Environmental Impact Report/Environmental

Assessment in Attachment F, impacts associated with construction of the proposed project (when Newell Road Bridge would be closed) would result in significant and unavoidable impacts on traffic at the University Avenue/East Crescent Drive intersection within the City of East Palo Alto. Therefore, in order to adopt the Environmental Impact Report, City Council would be required to make findings of overriding considerations for the proposed project. It should be noted that once the bridge is constructed and the bridge is re-opened, operation of any of the proposed build alternatives would be less than significant and in some cases would improve operations at nearby intersections.

Historic Evaluation

In 2003 Caltrans evaluated Newell Road Bridge and determined that it was not eligible for listing in the National Register of Historic Places (NRHP). It was re-evaluated in 2015 and the previous determination was confirmed. Five other properties (three single family residences and two apartment complexes) within the vicinity were also evaluated due to their age. All of these properties were found to not be eligible for listing in the NRHP or the California Register of Historic Resources (CRHR). Therefore, the project does not have potential to affect any known historic resources within the project area.

Hearings and Community Meetings on the Draft EIR/EA

In addition to this PTC hearing, a formal hearing on the Draft EIR/EA will be held at the regularly scheduled Architectural Review Board hearing on July 18, 2019. The City also plans to hold a community meeting the evening of June 18th and a hearing at the regularly schedule Public Works and Transportation Commission hearing in East Palo Alto on June 19th to provide the public with information about the EIR/EA that was released, to hear comments on the proposed project, and to let members of the public know where further comments may be provided throughout the circulation period.

Public Notification, Outreach & Comments

The Palo Alto Municipal Code requires notice of this public hearing be published in a local paper and mailed to owners and occupants of property within 600 feet of the subject property at least ten days in advance. Notice of a public hearing for this project was published in the *Daily Post* on May 31, 2019, which is 12 days in advance of the meeting. Postcard mailing occurred on May 30, 2019, which is 13 days in advance of the meeting.

Public Comments

A scoping meeting was held by the Cities of Palo Alto and East Palo Alto on September 3, 2015, at 6:30 p.m. at the Palo Alto City Hall Council Chambers, 250 Hamilton Avenue, Palo Alto. Following a presentation by staff, oral comments were accepted. Attendees were also invited to fill out public comments. A total of 47 public comments were received during the comment period, which lasted from August 12, 2015, through September 14, 2015. The City of Palo Alto recorded the meeting, which can be viewed online at the following link: http://midpenmedia.org/newell-roadsan-francisquito-creek-bridge-replacement-project/. A summary of public comments received during the scoping period are included in Attachment C.

The main concern raised by commenters was that realigning the bridge would result in an increase in traffic flow, speed, and bad driving behaviors; however, many commenters said that the realignment would increase vehicle, bicycle, and pedestrian safety. The proposed project would not realign to the bridge, rather it would replace in the same alignment. Build Alternatives 3 and 4 assess both a partial realignment of the bridge and full realignment of the bridge, respectively. However, the proposed project for the purposes of CEQA was selected because it was the environmentally superior alternative, required the least impacts on adjacent residences, and based on public comment received throughout the process.

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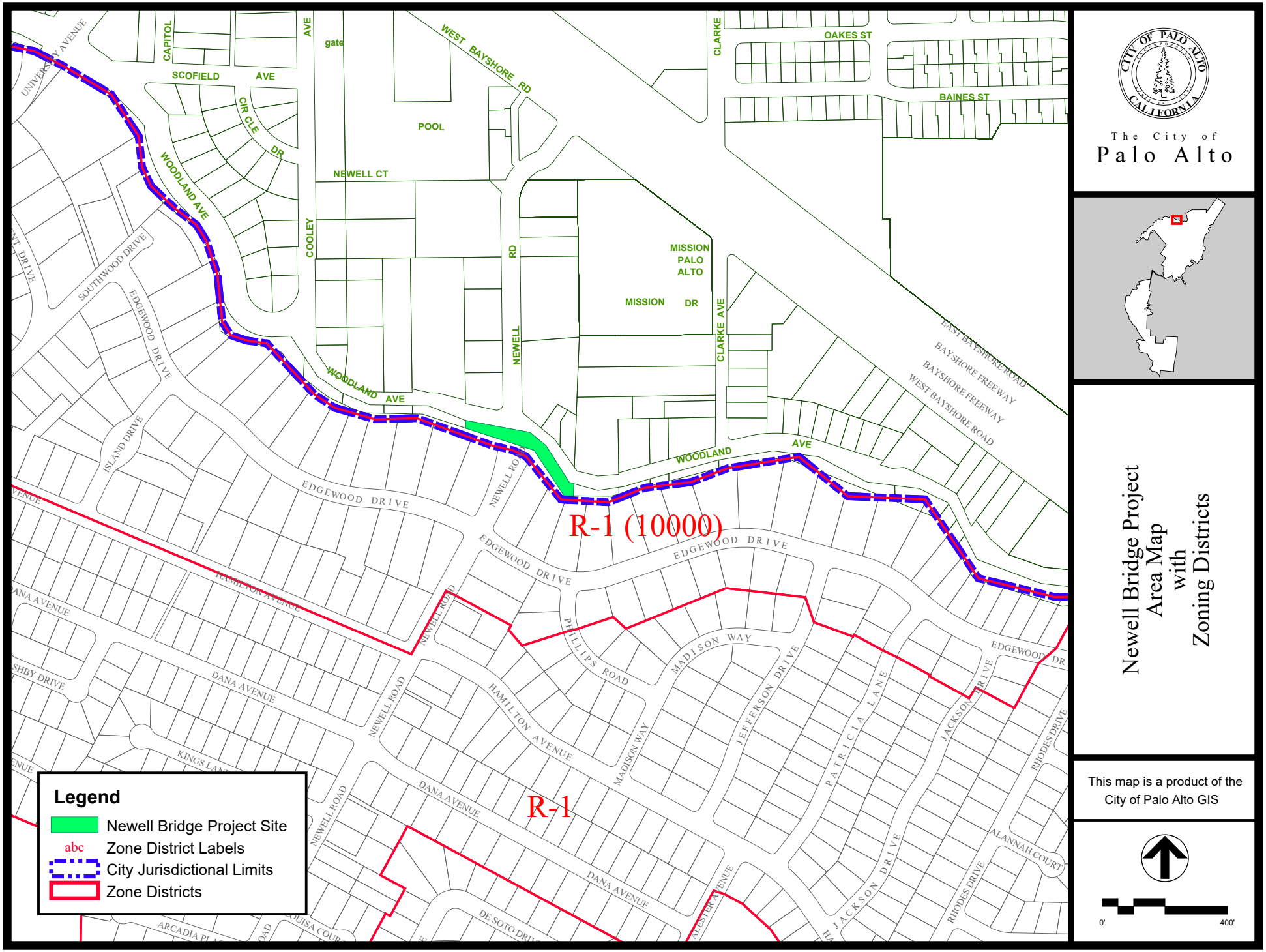
Attachments:

- Attachment A: Location Map (PDF)
- Attachment B: Comprehensive Plan and BPTP Consistency Analysis (DOCX)
- Attachment C: Summary of Public Comments on the NOP (DOCX)
- Attachment D: Project Description (PDF)
- Attachment E: Traffic Technical Report (PDF)
- Attachment F: Environmental Analysis and Project Plans (DOCX)

[4] Emails may be sent directly to the PTC using the following address: planning.commission@cityofpaloalto.org



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ATTACHMENT C
COMPREHENSIVE PLAN AND BICYCLE PEDESTRIAN TRANSPORTATION PLAN CONSISTENCY ANALYSIS
Newell Road Bridge
19PLN-00130

The proposed project is consistent with the Comprehensive Plan and Bicycle and Pedestrian Transportation Plan. Below is an analysis of the projects consistency with applicable goals and policies.

City of Palo Alto Comprehensive Plan

Comp Plan Goals and Policies	***How project adheres or does not adhere to Comp Plan***
The Comprehensive Plan land use designation for the site is Single-family Residential.	The project consists of the replacement of an existing bridge within the public right-of-way with a new bridge in the same location that conforms to Caltrans standards for multi-modal transportation (vehicles, bicyclist, and pedestrians) and site distances.
Land Use and Community Design	
Goal L-1: A compact and resilient city providing residents and visitors with attractive neighborhoods, work places, shopping districts, public facilities and open spaces.	Build Alternatives 1–4 would provide the city with a more attractive bridge area with a bridge designed for all modes of transportation and design in coordination with the ARB to meet the City's Architectural Review Findings.
Policy L-1.3: Infill development in the urban service area should be compatible with its surroundings and the overall scale and character of the city to ensure a compact, efficient development pattern.	Build Alternatives 1–4 would be compatible with its surroundings and the overall scale and character of the city. It includes the replacement of an existing bridge in the same location but designed to accommodate multi-modal access.
Policy L-2.2 Enhance connections between commercial and mixed use centers and the surrounding residential neighborhoods by promoting walkable and bikeable connections and a diverse range of retail and services that caters to the daily needs of residents.	The project includes better pedestrian and bicycle connections between neighborhoods.
Policy L-5.3. Design paths and sidewalks to be attractive and comfortable and consistent	This project would improve pedestrian facilities within this area by providing

with the character of the area where they are located.	pedestrian access across San Francisquito Creek.
Policy L-6.1: Promote high-quality design and site planning that is compatible with surrounding development and public spaces.	Build Alternatives 1–4 would be compatible with surrounding development and public spaces because there would be no change in land use and it would provide better connections between neighborhoods. Final design of the bridge would be subject to the City of Palo Alto Architectural Review Board.
Goal L-9: Attractive, inviting public spaces and streets that enhance the image and character of the city.	Build Alternatives 1–4 would include replacement of an existing bridge with a new bridge that allows for better connections between neighborhoods. The project would include landscaping and better pedestrian facilities, consistent with Goal L-9.
Policy L-9.3. Treat residential streets as both public ways and neighborhood amenities. Provide and maintain continuous sidewalks, healthy street trees, benches and other amenities that promote walking and "active" transportation.	Build Alternatives 1-4 allow for a continuous sidewalk crossing San Francisquito Creek, making the area safer for residents.
Transportation Element	
Goal T-1: Create a sustainable transportation system, complemented by a mix of land uses, that emphasizes walking, bicycling, use of public transportation and other methods to reduce greenhouse gas emissions and the use of single-occupancy motor vehicles.	Build Alternative 1–4 would improve vehicle circulation along a portion of Newell Road and would improve existing pedestrian and bike safety.
Policy T-1.19: Provide facilities that encourage and support bicycling and walking	Build Alternatives 1–4 would improve existing pedestrian and bike safety and allow for better, safer multi-modal access between neighborhoods across San Francisquito Creek
Goal T-3: Maintain an efficient roadway network for all users.	Build Alternatives 1–4 would improve vehicle circulation along a portion of Newell Road and provide safe access for pedestrians and bicyclists, encouraging multi-model transportation.
Policy T-3.2: Enhance connections to, from and between parks, community centers, recreation facilities, libraries and schools for all users.	Build Alternatives 1–4 would improve existing pedestrian and bike safety.

Policy T-3.5: When constructing or modifying roadways, plan for use of the roadway by all users.	Build Alternatives 1–4 would improve bike, pedestrian, and automotive safety along a portion of Newell Road.
Goal T-6: Provide a safe environment for motorists, pedestrians and bicyclists on Palo Alto Streets.	
Policy T-6.1: Continue to make safety the first priority of citywide transportation planning. Prioritize pedestrian, bicycle, and automobile safety over motor vehicle level of service at intersections and motor vehicle parking.	
Goal T-7: Provide mobility options that allow people who are transit dependent to reach their destinations.	Build Alternatives 1–4 would be compliant with Americans with Disabilities Act requirements and would improve infrastructure to allow for all modes of transit to more safely utilize this bridge.
Policy T-7.1: Support mobility options for all groups in Palo Alto who require transit for their transportation.	
Policy T-7.2: Utilize the principles of Universal Design, and local and State design standards, to guide the planning and implementation of transportation and parking improvement projects to ensure the needs of community members with limited mobility, including some seniors and people with disabilities, are addressed.	
Natural Environment Element	
Policy N-2.1: Recognize the importance of the urban forest as a vital part of the city's natural and green infrastructure network that contributes to public health, resiliency, habitat values, appreciation of natural systems and an attractive visual character which must be protected and enhanced	The EIR/EA requires replacement of the tree canopy at the ratios described in the East Palo Alto and Palo Alto Municipal codes for trees removed within their respective jurisdictions. Landscaping will be replaced, to the extent feasible, within the project area. Any trees that cannot be replaced within the project area will be replaced within the vicinity as required by the mitigation measures in the EIR/EA.

Bicycle and Pedestrian Transportation Plan

BPTP Plan Objectives and Policies	***How project adheres or does not adhere to BPTP***
Objective 1: Double the rate of bicycling for both local and total work commutes by 2020 (to 15% and 5%, respectively).	Build Alternatives 1-4 encourage bicycling and walking by providing better, safer access for multi-modal transportation across San Francisquito Creek.
Objective 2: Convert discretionary vehicle trips into walking and bicycling trips in order to reduce City transportation-related greenhouse gas (GHG) emissions 15% by 2020.	
Objective 3: Develop a core network of shared paths, bikeways, and traffic-calmed streets that connects business and residential districts, schools, parks, and open spaces to promote healthy, active living.	
Objective 4: Plan, construct, and maintain 'Complete Streets' that are safe and accessible to all modes and people of all ages and abilities.	Build Alternatives 1-4 would further the objectives of providing complete streets by providing continuous sidewalks and sharrows.
Policy T-1: Make land use decisions that encourage walking, biking, public transit use.	Build Alternatives 1-4 would encourage bicycling and walking by improving access for these modes of transportation.
Policy T-25: When constructing or modifying roadways, plan for usage of the roadway space by all users, including motor vehicles, transit vehicles, bicyclists, and pedestrians	Build Alternatives 1-4 plan for the use of roadway space by all modes of transportation.
Policy T-42: Address the needs of people with disabilities and comply with the requirements of the Americans with Disabilities Act (ADA) during the planning and implementation of transportation and parking improvement projects.	Build Alternatives 1-4 would be ADA compliant.

ATTACHMENT D
SUMMARY OF PUBLIC COMMENTS ON THE NOTICE OF PREPARATION
Newell Road Bridge
19PLN-00130

#	Commenter Last Name	Comment	EIR/EA Environmental Topic	Subtopic
1	Martinez (EPA)	Thank you for the opportunity to review and comment on the Notice of Preparation (NOP) for the Newell Road/San Francisquito Creek Bridge Replacement Project (Project). The City of East Palo Alto (City) appreciates its working relationship with the City of Palo Alto regarding this and other projects that impact both cities. The City is supportive of the City of Palo Alto's efforts to reduce potential flooding, and improve the safety for vehicles, pedestrians, and bicyclists in both East Palo Alto and Palo Alto.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
2	Martinez (EPA)	As a Responsible Agency under CEQA Guidelines Section 15381, the City requests and is available for early consultation with the City of Palo Alto to provide input and comments on draft Environmental Impact Reports (EIR) /Environmental Assessments (EA) in order to afford the City sufficient time to meaningfully provide comments.	Public Outreach	Responsible Agency consultation

3	Martinez (EPA)	The City concurs with the City of Palo Alto's conclusion that an EIR/EA is required, given the nature and scope of work the Project will likely entail. In particular, an EIR/EA is appropriate where, as here, the Project's bridge realignment and channel improvements are likely to impact traffic, pedestrian safety, and potential flooding in both cities. As set forth more fully below, the City seeks to provide comments specifying the scope and content of the environmental information germane to the City's statutory responsibilities in connection with the Project.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
4	Martinez (EPA)	The Newell Street Bridge is of critical importance for the City of East Palo Alto. The San Francisquito Creek forms the western boundary of the City. University Avenue, Newell Bridge, and West Bayshore Road are the only bridges that cross San Francisquito Creek (Creek) on the Westside of Highway 101. The City of East Palo Alto has been collaborating with the City of Palo Alto on this project for some time. See Attachment 1 for a March 11, 2014 letter regarding the inclusion of the realignment alternative in the analysis.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
5	Martinez (EPA)	Traffic. Compared to San Mateo County, the City of East Palo Alto is characterized by higher rates of residents who walk or ride a bicycle to work, and who are likely to not own a car. The City therefore requests that the following analyses be performed on all Build and No-Build Alternatives. 1. Pedestrian and bicycle safety, access, and design. 2. Vehicular line of sight and corner sight distance standards. 3. The potential safety improvements from adding a signal control to an improved intersection in East Palo Alto (Traffic signal warrant study).	Traffic and Transportation	Pedestrian and bicycle safety

6	Martinez (EPA)	4. Vehicle queuing at controls on all roadway segments ofthe Newell Rd. and Woodland Ave. intersection. 5. Traffic calming elements. 6. Emergency response impact. 7. LOS, Critical Movement Delay, and V/C Ratio calculations for each alternative at the following intersections: a) Newell Rd. and Woodland Ave. b) Newell Rd. and West Bay shore Rd. c) Woodland Rd. and Cooley Ave. d) Woodland Rd. and Clarke Ave. Please coordinate with City of East Palo Alto staff so that we may provide information on the Pedestrian Overcrossing Project that will cross U.S. Highway 101 at Newell Rd.	Traffic and Transportation	Existing and projected traffic, speed, and driving behaviors
7	Martinez (EPA)	Land Use and Planning. The EIR/EA should analyze all Build and No-Build Alternatives to determine the impact they would have on physically dividing an established community and conflict with applicable land use plans.	Land Use and Planning	Physical division of established community and conflicts with land use plans
8	Martinez (EPA)	The EIR/EA should include a Community Impact Assessment and an analysis of the potential environmental justice impacts ofthe alternatives because the Project is partially located in a low-income and minority community. See Volume 4 of the California Department of Transportation (Caltrans) Environmental Handbook.	Community Impacts	Environmental justice impacts
9	Martinez (EPA)	Hydrology and Water Quality. The City of East Palo Alto endorses the purpose of the proposed Project which, as identified in the Notice of Preparation, is to accommodate the 1% flow rate of the San Francisquito Creek and to increase multimodal mobility. The 1% flow rate should only be accommodated when downstream measures are sufficient to safely accommodate it. Detention or retention measures on Stanford University lands or elsewhere west of Highway 280 must be incorporated when high tides and/or wave run up prevent the downstream improvements from accommodating the 1% flow rate.	Hydrology and Water Quality	Downstream measures to accomodate 1% flow rate

10	Martinez (EPA)	The Project proposes to widen the channel downstream of the Newell Street Bridge. Improvements in the Creek channel must be done starting from downstream improvements working upstream consistent with the approved SFCJPA's EIR. Widening the Creek channel cannot occur until after the completion of the SFCJPA Reach 1 project and between Highway 101 and the San Francisco Bay, and the Caltrans project at Highway 101.	Cumulative Impacts	SFCJPA projects
11	Martinez (EPA)	The cumulative impact of the proposed changes to the Creek channel must be comprehensively analyzed along the length of the Creek to ensure that changes made in the vicinity of the Newell Street Bridge do not have negative impacts on downstream or upstream communities. The City of East Palo Alto is particularly concerned about the vulnerable neighborhoods downstream of the U.S. Highway 101 Bridge. Certainly, if the proposed changes to the Creek channel deviate from the alternatives that were included in the SFCJP A's hydrology analyses, a new comprehensive hydrology analysis must be performed to ensure that there the potential improvements made at Newell Street will not increase the risk of flooding in other locations.	Cumulative Impacts	SFCJPA projects
12	Martinez (EPA)	Biological Resources. This Project is within the Steelhead trout habitat, which is protected at the state and/or federal level. The bridge will involve construction activities, including changes to the stream volume, and potentially pile driving. Consultation with regulatory agencies will be necessary to determine the impact on the Steelhead habitat.	Biological Resources	Impacts to steelhead trout habitat
13	Martinez (EPA)	Noise. Construction will temporarily increase noise levels in the adjacent neighborhood around the work zone. Please analyze noise control measures alternatives to minimize noise.	Noise and Vibration	Construction-period impacts
14	Martinez (EPA)	Emergency Service Access. Emergency service, Fire and Police in particular, will be modified and affected during the construction of the Project and after it, depending on design alternatives. Please coordinate with Emergency Service providers and analyze potential impacts to emergency response times during, and after construction.	Public Services and Utilities	Emergency service access

15	Martinez (EPA)	Community Outreach. Please coordinate with City of East Palo Alto staff listed below to ensure adequate time for the review of draft documents and to ensure that the appropriate East Palo Alto advisory and legislative bodies have an opportunity to respond.	Public Outreach	Responsible Agency consultation
16	Martinez (EPA)	Designation of City Staff. The City of East Palo designates the following employees to attend meetings to discuss the scope and content of the EIR/EA; you may send all notices related to this project to the addresses noted below: 1. Carlos Martinez, City Manager, City of East Palo Alto, 2. Sean Charpentier, Assistant City Manager, City of East Palo Alto, 3. Brent Butler, Planning Manager, East Palo Alto Planning Division, 4. Kamal Fallaha, Public Works Director, City of East Palo Alto, 5. John Le, Deputy City Attorney, City of East Palo Alto. Thank you again for the opportunity to comment on the Notice of Preparation for the Newell Road/San Francisquito Creek Bridge Replacement Project. The City of East Palo Alto looks forward to continuing our collaborative relationship with the City of Palo Alto on this Project and other projects that impact the residents of both our cities. If you desire additional information or have any questions regarding this letter, please contact Sean Charpentier, Assistant City Manager, at (650) 853-3150.	Public Outreach	Responsible Agency consultation

17	Hurley (SF RWQCB)	The San Francisco Regional Water Quality Control Board (Water Board) staff appreciates the opportunity to provide comments on the City of Palo Alto's Notice of Preparation (Notice) of a Draft Environmental Impact Report (EIR) for the San Francisquito Creek Flood Control and Newell Road Bridge Replacement Project (Project), received on August 18, 2015. The proposed Project is located in the City of Palo Alto, Santa Clara County, and City of East Palo Alto, San Mateo County. The City of Palo Alto (City) is the Project Lead Agency under the California Environmental Quality Act (CEQA). The California Department of Transportation (Caltrans, District 4 Office) is acting under assignment from the Federal Highway Administration (FHWA), and is the Lead Agency under the National Environmental Policy Act (NEPA) and will prepare an Environmental Assessment (EA) as a joint document with the EIR (EIR/EA). The FHWA is providing 88.5 percent of the project cost, and the Santa Clara Valley Water District (District) is funding the remaining 11.5 percent of project costs. The proposed Project would replace the existing Newell Road Bridge (Bridge) that crosses over San Francisquito Creek and connects the cities of East Palo Alto and Palo Alto. The proposed Project has two purposes: (1) to protect adjacent communities from flood hazards by accommodating the 1 percent flood flow of San Francisquito Creek at Newell Road; and (2) to improve safety for vehicular, cycling, and pedestrian traffic across San Francisquito Creek at Newell Road.	Non-CEQA/NEPA	Commenter qualifications/Introduction text

18	Hurley (SF RWQCB)	The proposed Project would result in dredging or filling of San Francisquito Creek due to the following elements: • Bridge Replacement. The proposed Project would replace the existing Bridge to provide sufficient flow capacity to accommodate the 1 percent flood flow. Although the proposed bridge design is still in conceptual phase, it will likely require abutments and retaining walls at each end of the Bridge constituting fill in the creek, and retaining walls on the Bridge. • Creek Widening. The proposed Project includes widening San Francisquito Creek along 900 linear feet immediately downstream of the Bridge. The Notice does not state the amount of widening. The Notice states this Project element will alleviate a flow "bottleneck" in the creek, and will also minimize increase in the Bridge profile. This element also includes building floodwalls to contain high flows. • Creek Bank Regrade. The proposed Project would regrade the north bank (i.e., East Palo Alto bank) to increase the creek's capacity downstream of the Bridge, and thereby lower the water surface elevation of the creek during high flow events. The Notice does not state the proposed regarded channel dimensions.	Project Description	Construction activities/timing

19	Hurley (SF RWQCB)	Water Board staff is generally supportive of the proposed Project for its improvements in traffic flow, transportation safety, and flood protection. We provide the following comments to assist District staff in preparing the Draft EIR and to highlight the Water Board's policies. 1. Please note that the Water Board adopted U.S. EPA's Section 404(b)(1), "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, in its Basin Plan for determining the circumstance under which filling of wetlands, streams or other waters of the State may be permitted. Section 404(b)(1) Guidelines prohibit all discharges of fill material into regulated waters of the United States, unless a discharge, as proposed, constitutes the least environmentally damaging practicable alternative (LEDPA) that will achieve the basic project purpose. Water Board staff recommends the City prepare alternatives in the EIR that would meet the EPA's Section 404(b)(1) LEDPA standard to expedite the future Clean Water Act permitting requirements. The sequence in which design proposals should be approached: 1) Avoid - avoid impacts to waters; 2) Minimize - modify project to minimize impacts to waters; and, 3) Mitigate – once impacts have been fully minimized, compensate for unavoidable impacts to waters. When it is not possible to avoid impacts to water bodies, disturbance should be minimized. Mitigation for lost water body acreage and functions through restoration or creation should only be considered after disturbance has been minimized. Where impacts cannot be avoided, the creation of adequate mitigation habitat to compensate for the loss of water body acreage, functions, and values must be provided. Cumulative and indirect impacts to wetlands must also be prevented. Indirect impacts include, but are not limited to: deposition of sediments; erosion of substratum; and maintenance due to excessive sediment deposition.	Hydrology and Water Quality	Applicable regulations for project impacts to wetlands, streams, or other waters

20	Hurley (SF RWQCB)	2. The EIR should include an analysis of the effects of the proposed Project on the creek's hydraulics and geomorphology, stability, and compatibility with related projects in the channel (i.e., a cumulative impacts analysis). As the Notice states that the Project is within the San Francisquito Creek Joint Powers Authority's (JPA) study area for the San Francisquito Creek Flood Protection, Ecosystem Restoration, and Recreation Upstream of Highway 101 Project (Upstream 101 Project), the cumulative impacts analysis should include all reasonably foreseeable projects including both of the JPA's flood control projects (i.e., the Upstream 101 Project and the project extending from US 101 to San Francisco Bay); and the Caltrans US 101 bridge replacement project. The analysis should also account for potential effects of projects upgradient of the Bridge, such as the future Searsville Dam sediment load implementation plan. The cumulative impacts analysis is necessary to demonstrate how the proposed Project would preserve or enhance the creek's functions and values in accordance with the Basin Plan and U.S. EPA's Section 404(b)(1) Guidelines	Cumulative Impacts	SFCJPA projects
21	Hurley (SF RWQCB)	3. For the proposed channel widening and bank grading elements, the EIR should evaluate channel design alternatives with a bankfull channel and vegetated floodplains using woody vegetation and grasses. Also evaluate and incorporate into the alternative creek designs, to the extent feasible, bioengineering methods consistent with the District's Stream Maintenance Program Manual, Appendix A.	Project Design Considerations	Channel design alternatives
22	Hurley (SF RWQCB)	4. The City should evaluate design alternatives that include off-channel flood management measures, such as detention basins and/or decentralized best management practices (BMPs) (e.g., low impact development retrofit measures) to accomplish Project goals.	Alternatives to the Project	Off-channel flood management design alternatives

23	Hurley (SF RWQCB)	5. Evaluate and appropriately address potential impacts from discharges from new or reconstructed impervious surface, including the Bridge structure. The EIR should include mitigation measures for post-construction stormwater BMPs consistent with the requirements of Provisions C.3, C.10, and other applicable Provisions of the NPDES Storm Water Municipal Regional Permit (NPDES Permit No. CAS612008; Order No. R2-2009-0074, as amended, or the most-current reissuance).	Hydrology and Water Quality	Post-construction discharge impacts from new or reconstructed impervious surfaces
24	Hurley (SF RWQCB)	6. Include with each alternative an appropriately-detailed mitigation and monitoring plan that addresses the Project's impacts to wetlands and other waters of the State. This should include an evaluation of potential locations to restore, enhance, and/or create wetland and/or riparian habitat to compensate for the Project's reasonably foreseeable temporary and permanent impacts to the waters' beneficial uses and areal extent. We welcome the opportunity to provide additional comments on a draft Project EIR when it is available for review. If you have any questions about our comments please contact me at susan.glendening@waterboard.ca.gov or (510) 622-2462.	Biological Resources	Impacts to vegetation wetlands and other waters
25	Molseed (VTA)	VTA has no comments on the NOP of the Newell Road Bridge Replacement. Thanks.	Non-CEQA/NEPA	No comments at this time
26	Altman	I live at 105 Mission Drive in East Palo Alto, 1/3 of a mile from the Newell Bridge. My dog and I walk over the bridge every morning for a stroll and I drive over the bridge a couple of times a week when heading to certain locations in Palo Alto.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
27	Altman	My hope is that the bridge becomes either fully or better aligned with Newell Road on the EPA side and that there is better pedestrian safety over the bridge. A two-lane roadway makes the most sense to me.	Preference for Alternative	Alternative 3 and 4
28	Altman	I will be interested to see what the EIR says about vegetation in and around the creek and whether planting more native species would have favorable effects on creek flow.	Biological Resources	Impacts to vegetation along creek

29	Ballard	I am writing as the Executive Director of Silicon Valley Bicycle Coalition (SVBC), a membership-based non-profit with the mission to create a healthy community, environment, and economy through bicycling in San Mateo and Santa Clara Counties. We would like to provide comments on the Newell Road Bridge replacement project.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
30	Ballard	We commend Palo Alto for undertaking this project to replace a century-old bridge to accommodate a 1% flood event. Given this opportunity, the bridge should be brought up to modern transportation standards as well, specifically as they relate to Complete Streets and bicycling and walking access. Pursuant to the September 3, 2015 EIR/EA Scoping meeting, none of the five proposed alternatives for the Newell Rd. Bridge replacement include bicycle lanes. The bidirectional one-lane alternative is proposed as a single 16' -wide shared-use lane plus one or two pedestrian sidewalks. The two-lane alternatives is proposed as two 14' -wide shared-use lanes plus one or two pedestrian sidewalks.	Project Design Considerations	Separate bike lanes
31	Ballard	As a Gold Bicycle Friendly Community, Palo Alto should take every opportunity to improve the existing bike networks, especially those that connect to adjacent communities. The project purpose and need include three relevant considerations: • Maintain connections for vehicular, bicycle, and pedestrian transportation • Improve pedestrian and bicycle access across the creek • Improve safety for all modes of transportation In addition, East Palo Alto is in the process of constructing a bicycle and pedestrian overcrossing of Highway 101 at University Ave. The western landing of the overcrossing will touch down right at Newell Road and West Bayshore. Providing a high quality bike crossing of the creek will aid access to and from the 101 overcrossing and East Palo Alto.	Purpose and Need	Improve safety and connections for all modes of transportation

32	Ballard	To meet the project purpose and need, and provide high quality healthy transportation options for all users, we recommend a separate 4-5' Class II bike lanes on each side of the bridge adjacent to two 9-1 0' vehicle lanes instead of two 14' shared use lanes. We do not recommend adopting the bidirectional one-lane configuration, as it does not leave the possibility for a safe and comfortable option for people biking. These improvements will also help City of Palo Alto comply with its upcoming Complete Streets resolution, 1 which will require that all projects provide for safe travel along and across public right of ways. We urge you to reconsider the addition of bike lanes on the Newell Rd. Bridge. Thank you for your consideration.	Project Design Considerations	Separate bike lanes
33	Boas	My name is Patty Boas and I am a resident at 1533 Dana Avenue Palo Alto, California 94303. I attended the scoping meeting regarding the Newell Road / San Francisquito Creek Bridge Replacement Project on September 3, 2015. Following is my input for the Environmental Impact Review Report.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
34	Boas	1) Public Safety of Current Bridge at its Existing Alignment - The EIR should provide a historical accounting and analysis of any actual safety issues that have occurred on the current bridge. We need this benchmark to understand the safety of the bridge in its current state. Many residents (myself included) believe that the bridge in it current condition provides excellent traffic calming and forces drivers to proceed slowly and safely.	Purpose and Need	Traffic accident/issue data for existing bridge
35	Boas	2) Current and Projected Automobile Traffic on Newell due to different bridge / alignment scenarios and the impact of each of those scenarios on 1) the safety of children bicycling on and / or crossing Newell, 2) the safety and disturbance of residents walking on sidewalks and crossing Newell, and	Traffic and Transportation	Pedestrian and bicycle safety
36	Boas	3) the potential increase in noise, neighborhood disruption and ambience detraction.	Noise and Vibration	Noise impacts from increased traffic

37	Boas	Specific issues the EIR should examine yet not limit itself to include 1) overall traffic count on Newell (number of, composition of (i.e. cars or trucks) and time of day cars/trucks travel on Newell, 2) speed travelled, 3) obeying stop signs and speed limits, 4) yielding to pedestrians, and 5) driving behavior when passing bicyclists in bike lanes.	Traffic and Transportation	Existing and projected traffic, speed, and driving behaviors
38	Boas	3) Multi Use Zoning & High Density Housing in East Palo Alto (EPA). EPA is studying the possibility of changing zoning to accommodate the development of multi-use buildings and high density housing. The EIR must study the impact and consequences that may result to the Newell bridge and the Crescent Park, Duveneck – St. Francis, and East Palo Alto neighborhoods if such zoning and respective projects are approved. The EIR must request EPA city government transparency in disclosing it goals, its plans and its timing related to such zoning changes and development.	Cumulative Impacts	East Palo Alto General Plan
39	Boas	4) Source & Destination of Traffic - The EIR must ascertain the home and destination of current and projected users of the bridge and analyze the costs / benefits on the character and ambience of the neighborhoods relative to the usage of the bridge by the local home owners. If Palo Altans aren't primary users of the bridge, they shouldn't carry the burden of the destruction of a neighborhood that was never designed to be a major traffic thoroughfare.	Traffic and Transportation	Source of trips and trip generation
40	Boas	5) Escape Route for Crime. Crime is an issue in the Crescent Park, Duveneck – St. Francis, and East Palo Alto neighborhoods. It has been speculated that the Newell Bridge facilitates crime as it allegedly serves as a quick and easy escape route. The EIR should include Palo Alto Police Department current and historical data to validate or refute this conjecture. The EIR should also seek Palo Alto Police Department expertise and preference regarding which bridge / alignment alternative best serves the neighborhood to mitigate crime.	Community Impacts	Crime
41	Cheng	I recently read the letter sent to you from Gary Paladin. I'm writing this email in supporting Gary Paladin's letter for all his concerning issues and its impact to our neighborhood.	Non-CEQA/NEPA	Commenter qualifications/Introduction text

42	Cheng	Specially I concern the Traffic and Pedestrian Use Safety. Newell is the main road for my daughters and their friends in Crescent park and Duveneck-St. Francis neighborhood. They bike to and from Jordan Middle school and Palo Alto High school every week days. And I like to see the kids walking, biking boarding and scooting to and from Duveneck Elementary school safely right on our Dana Ave, which cross the Newell Road.	Traffic and Transportation	Pedestrian and bicycle safety
43	Cheng	Beside the traffic safety issues considered with the Cross Creek Bridge Project. I also concern the quiet neighborhood issue. I almost walk across Newell road everyday. To library, art center and Tennis court with family. Walking around with my dog. Hopefully this Life Quality issue will be considered in the Project too.	Noise and Vibration	Noise impacts from increased traffic
44	Dolton	I have just read the letter sent to you September 5, 2015 from Gary Paladin, my neighbor on Dana Ave. He has carefully studied the matter in depth and brings up numerous important concerns that should be addressed before any decision about the design of the bridge and configuration of Newell Rd. after it crosses the creek.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
45	Dolton	Both the neighborhoods of Crescent Park and EPA will be directly effected by the design of the bridge and any good or adverse consequences. Lately, there has been a welcome emphasis on considering the Quality of Life for neighborhood residents. Maintaining Quality of Life for residents who live in the neighborhoods is worth pursuing each time that it is challenged.	Community Impacts	Project impacts on "quality of life"
46	Dolton	To me the one of the most important issues to be addressed is the building of large multi-unit complexes by developers in EPA. The needs of a higher density population and the cars that will be added to the streets, if Newell Rd. is expected to accommodate them, will have a negative impact for people who now currently live on both sides of San Francisquito Creek in contiguous neighborhoods.	Cumulative Impacts	East Palo Alto General Plan

47	Dolton	Newell Rd. is a thoroughfare for residents from both communities, who enjoy family walks to Rinconada Park for picnics, swimming, the Art Center, Neighborhood Gardens, the Rinconada Library and the Children's Library. Children from both neighborhoods ride bikes and walk to those places and the nearby schools. I have already observed commuters on Newell Rd., easily spotted, exceeding the speed limit and trying to rush to get to University Ave. for quick access to enter Hwy. 101. Sometimes cars have lined up at the Channing signal and/or the 4-way stop at Dana and Newell.	Traffic and Transportation	Pedestrian and bicycle safety
48	Dolton	I send my letter in support of Gary Paladin's letter with a special emphasis on my hope that the Newell Rd. design will support Quality of Life in both Crescent Park and EPA neighborhoods. This is a chance for foresight to effect the plan rather than hindsight, which has been a problem with downtown projects.	Community Impacts	Project impacts on "quality of life"
49	Elliott	Thank you for the invitation to the meeting this evening. Unfortunately, I have other commitments and won't be able to make it.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
50	Elliott	I have made verbal comments at previous meetings, but I want to provide written comments that it is important that there a project alternative is selected that causes minimal damage to the stream ecology including: 1) Ensuring the new bridge does not include abutments that would increase erosion of the creek bank, 2) Planned "improvements" to the creek bank are ecologically friendly and not bank hardening (e.g., methods in the following document: http://www.fema.gov/pdf/about/regions/regionx/Engineering_With_Nature_Web.pdf), 3) Tree removal be limited to the extent possible to non-natives such as the row of Eucalyptus that are on the west side of Newell on the Palo Alto side of the creek, and 4) The venerable and beautiful old Buckeye across from the Eucalyptus trees remains undamaged. Please keep me on the email list for this project.	Biological Resources	Impacts to stream ecology and tree removal
51	Farn	Due to Palo Alto High School's back to school night, my family missed the Newell Bridge meeting last Thursday.	Non-CEQA/NEPA	Commenter qualifications/Introduction

				text
52	Farn	Our vote is Alternative 1: a new bridge that solves the water flow/flood problem while providing the same access and still preserving the safety and character of the neighborhood. A new bridge with full realignment of Newell Rd is an absolute NO. I don't know who came up with this idea. I can't see any reason for this proposal. Is it supposed to be for safety reasons? I have lived here for the last eight years and not once have I heard an accident at the bridge. What's the accident record on the bridge? Perhaps you can share with us. In fact, a larger aligned bridge will make the traffic more dangerous. The traffic noise on Newell continues at night with cars speeding down Newell. The City has installed stop signs, but this has had little or no effect. Both my kids' bedrooms are along Newell Rd, and they don't open their windows due to the car noise, even on hot summer nights. Very sad! It will just get worse if cars can just speed across the bridge too.	Preference for Alternative	Alternative 1
53	Farn	Can the construction start by taking down the bridge before this El Nino winter that's coming??? 2018 is a long time away.	Project Description	Construction activities/timing
54	Farn	Thank you for all your work on managing this project. I know it's not an easy task. The City of Palo Alto should put its own residents' well being and opinions first. After all, we're the ones that are paying the hefty tax to maintain the streets and the neighborhood, which we won't be able to enjoy if there is a super bridge.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
55	Hammer G	Fix the Newell Bridge ASAP to prevent flooding. All other issues are secondary.	Purpose and Need	Flooding
56	Hammer X	Important to get this project done as soon as possible for flood control!	Preference for Alternative	Alternative 1, 2, 3, and 4
57	Hammer X	Include traffic calming measures to prevent speeding.	Project Description	Traffic calming measures

58	Hitchings	This letter concerns the public community meeting on September 3rd about the Newell Bridge Replacement in City Council Chambers. Because it conflicts with back to school night I cannot attend so I am giving you my public written comments here:	Non-CEQA/NEPA	Commenter qualifications/Introduction text
59	Hitchings	The Newell Bridge is over 100 years old. It is traffic hazard, only allows traffic to cross one way at a time, without signaling and no pedestrian or bike walkway, thus endangering the many folks who cross it every day. It is not seismically safe. It provides a key access point for East Palo Alto vehicular traffic, including emergency vehicles. Also, its poor design significantly restricts channel flow during floods in San Francisquito Creek. One of these recent floods caused 10s of millions of dollars in damage to over 400 homes in Palo Alto in 1998 during an El Nino winter flood.	Purpose and Need	Traffic safety, flooding
60	Hitchings	The City of Palo Alto realizes that in order to address all these issues of public safety they must replace this bridge. They have secured the majority of money from Caltrans, which is very commendable. It is a matter of public safety that the City proceed with an option other than the “no option”. Without the Newell Bridge being fixed, the Chaucer bridge cannot be improved, resulting in significant ongoing flooding risk for many Palo Alto residents. While this project is challenging, the City of Palo Alto and the JPA have done a good job on all fronts and I strongly urge you to continue forward with replacing the bridge.	Preference for Alternative	Alternative 1, 2, 3, and 4
61	Holzer	I strongly prefer a one-lane bridge with a light if possible. Otherwise you are creating another traffic thoroughfare on a RESIDENTIAL street.	Preference for Alternative	Alternative 1
62	Huerta	Here are items I find concerning to include in the Newell Rd. Bridge replacement CEQA scoping. I am in favor of the three options of two way travel on the bridge.	Preference for Alternative	Alternative 2, 3, and 4
63	Huerta	A new bridge will bring more traffic to Newell Road. Please measure the traffic impacts at State levels. Residents in the neighborhood must be conscience they are situated between two City arterial roadways, University and Embarcadero, and are subject to crossing	Traffic and Transportation	Existing and projected traffic, speed, and driving behaviors

		traffic.		
64	Huerta	In the seeping meeting email of this project there is mention of widening the San Francisquito Creek 900 feet downstream of this new bridge. I am not for this option. Please consider the materials of fences backing to the creek, permeable or non permeable.	Project Description	Creek widening
65	Huerta	In the current iteration of the three bridge options the bridge would be raise two feet. Unless all bridges crossing San Francisquito Creek are going to be raised two feet I do not see the need to raise this bridge given SFCJPA is working on capacity in the creek. What would be the impact to the new bridge if impacted by a 100 year flood? Remain in service I hope. Thank You	Project Description	Bridge height

66	Lowell	I am not familiar with the type of comments to be made in Scoping for EIR. I have read the September 3 Scoping presentation. I read the purposes that included making the bridge crossing safer for all forms of transportation, which would include motor vehicles, and that an effort would be made to avoid diversion of traffic "onto adjacent streets" and to avoid increasing number of cars on Newell Road, I also want to make sure that the EIR will address the ramifications, indeed, the likelihood, of redesign for safer motor vehicle transport resulting in increasing the use of the bridge and adjacent streets to avoid traffic on University or to find alternative routes to 101. This is not traffic diverted from Newell onto adjacent streets, but rather traffic that would be added to adjacent streets and to Newell from the many motor vehicles that seek to avoid the backups on University Ave heading toward 101 and toward the Dumbarton Bridge. Similarly, in the other direction, will more cars and trucks tum at the light at Woodland A venue, travel along the east side of the creek through that residential area in East Palo Alto to reach Newell and then downtown Palo Alto or Stanford. To avoid backups, many cars are now starting to travel on parallel two-lane residential roads then cut over to also two-lane largely residential University Ave. or to Embarcadero.	Traffic and Transportation	Existing and projected traffic, speed, and driving behaviors
67	Lowell	Many cyclists and pedestrians now use these adjacent streets, rather than using University, and their safe biking and walking route would be impaired by additional cars.	Traffic and Transportation	Pedestrian and bicycle safety
68	Lowell	I just want to make sure that the EIR will look not only at whether cars will be diverted from Newell onto adjacent streets, but whether cars will be diverted from University and Embarcadero, onto adjacent streets, and then onto the Newell bridge. It may be that the EIR will already consider these consequences, but I wanted to make sure.	Traffic and Transportation	Existing and projected traffic, speed, and driving behaviors
69	Mates	I attended the recent meeting at City Hall. Given the current status quo, I think the choices presented for review were adequate. I strongly support replacing the bridge with the one-fane full off-set option. I believe it is the ONLY possible option for protecting quality	Preference for Alternative	Alternative 1

		of fife and safety for the future.		
70	Mates	I was astounded to learn of the possibility of 8 story development on the east side of the bridge. It is mandatory that that potential change in zoning be factored into any EIR.	Cumulative Impacts	East Palo Alto General Plan
71	Mates	My strong feeling, should EPA proceed with such high-density plans, is that the EIR consider the effect of a fifth plan: close the bridge and do not replace it. It is outrageous that EPA should even consider allowing a change that would so negatively impact the city of Palo Alto and our neighborhood for ever.	Alternatives to the Project	Remove bridge and not replace it
72	Mulvey	These notes are to supplement my comments at the September 3rd EIR/EA scoping meeting. First and foremost, please know that I support all the Project Purposes (slide 9); and it would be very helpful if there were something like a "consumer reports" circle-chart illustrating the alternatives and the necessary tradeoffs when it is not possible to optimize all the purposes in a single proposed design. These thoughts are numbered for reference, not priority.	Purpose and Need	Assess how each Alternative meets the P&N
73	Mulvey	BRIDGE REPLACEMENT 1. I would like to see any bridge replacement include two pedestrian sidewalks and two separate bicycle lanes (NOT sharrows). The addition of the East Palo Alto pedestrian and bicycle overcrossing for Highway 101 (Newell to Clarke) is expected to significantly increase walking and biking in the area, and those needs should be fully incorporated in planning the bridge design.	Project Design Considerations	Separate bike lanes
74	Mulvey	2. Additionally, the East Palo Alto "Bay Access Master Plan" anticipates a creekside trail and pocket parks along Woodland. Please incorporate design features at the Woodland ends of the bridge and for the pedestrian sidewalks that improve visibility of the creek and riparian corridor for walkers to enjoy.	Project Design Considerations	Pedestrian and bicycle design features at Woodland Ave

75	Mulvey	3. Re my request for separate bicycle lanes, I am concerned that wide vehicle lanes with sharrows will be a magnet for increased vehicle use (not to mention higher speed vehicle use) compared to the current 1911 bridge that is celebrated as “the best traffic calming device in the city.”	Project Design Considerations	Separate bike lanes
76	Mulvey	4. For those traffic related concerns, please talk with East Palo Alto about seriously considering the idea of making Newell a dead-end before the West Bayshore frontage road intersection (like Seale at Embarcadero and Kingsley at Embarcadero in Palo Alto). This has been mentioned as a safety feature for the Newell/Clarke overcrossing and seems to have real merit. (I assume such a dead-end will also need to block cut-through traffic from accessing Newell via the adjacent commercial-area parking lots.)	Project Design Considerations	Dead-end Newell Road before West Bayshore Road in East Palo Alto
77	Mulvey	5. Please give special attention to showing the visibility changes/improvements for walkers, bikers, and vehicles for all suggested bridge alignments. I am especially concerned about turns from Woodland to cross the bridge, and I’m not easily visualizing the benefits of having the elevated roadway “padding” needed on both sides of the bridge for the higher bridge profile.	Traffic and Transportation	Pedestrian and bicycle safety
78	Mulvey	6. Please give consideration to alternative pedestrian crosswalks on Woodland that minimize distance traveled. I like the cater-corner crosswalk at Newell and Hamilton as an example.	Project Design Considerations	Pedestrian cross-walks at Newell and Woodland
79	Mulvey	DOWNSTREAM CHANNEL WIDENING 1. Given the current uncertainty about flood damage reduction planning upstream of Newell, I support eliminating the 900’ in-channel bottleneck downstream of Newell. But it will be important that the EIR/EA process fully address concerns about piecemealing the environmental review.	Project Description	Creek widening
80	Mulvey	2. Additionally, since we are told to expect more frequent extreme weather events associated with climate change, please be proactive in considering the need for additional flow capacity.	Project Design Considerations	Additional flow capacity

81	Neff	I attended the recent community meeting. This expands on comments I made there. In the options with 2way traffic, the roadway across the bridge was only presented using 14 foot lanes, with a class 3 bike route. This kind of bicycle facility is just a shared lane. It may be marked with sharrows to alert drivers to the possible presence of cyclists, but if there are no cyclists present, it may be driven as a full width lane. A 14 foot lane is wider than necessary just for autos, and will invite speeds higher than desired for a shared lane, and possibly higher than desired by the neighborhood. Of course, the stop signs at both ends of that block of Newell will moderate traffic.	Project Design Considerations	Shared bicycle lane design
82	Neff	For a comfortable shared lane, the auto speed should be 20 mph or lower, and the auto traffic light. Is the projected traffic volume really compatible with a shared lane, or will the traffic drive most bicyclists away? What is the target speed and volume in this design?	Project Description	Target speed for bridge design
83	Neff	Traffic speeds on Newell are an important consideration for bicyclists and neighbors, so alternatives to a simple, smooth, gently graded 14foot shared lane should be considered. Any treatment that narrows the apparent driving space will tend to make traffic slower, and more cautious.	Project Design Considerations	Shared bicycle lane design
84	Neff	One possibility would be to implement 4 foot class 2 bike lanes (with a consistent travel surface, and no gutter pan, this can fit) with 10 foot travel lanes, matching the bike lanes further up the block. The center line may be removed, as is being done now on Matadero, with a goal of slowing traffic, and creating a safer shared lane. A currently experimental option would be to remove the center line and paint dashed lines 5 feet from the curbs, with an 18 foot 2way center area. The narrower center space slows traffic more. In this configuration traffic would have to adjust to oncoming vehicles, leading to lower speeds, much as auto traffic must slow on our narrow streets like Castilella today. City transportation staff are looking into this kind of dashed line treatment for some of the streets in Palo Alto's bike network that are too narrow for regulation bike lanes.	Project Design Considerations	Shared bicycle lane design

85	Neff	I hope the DEIR will lead to a low stress bicycle connection across the bridge, connecting our two cities via this bridge and the new bicycle/pedestrian bridge over 101 planned at the end of Newell in East Palo Alto.	Traffic and Transportation	Pedestrian and bicycle safety
86	Ngo	We are strongly in favor of one lane bridge option. This option will preserve the current quality of life along the Newell Road. We are opposed to all other options as they will result in increased level of traffic, noise and danger to children along this highly used "bike/walk to school" corridor.	Preference for Alternative	Alternative 1
87	Paladin	I attended the scoping meeting regarding the Newell Road/San Francisquito Creek Bridge Replacement Project on September 3, 2015. This letter submits my thinking regarding what the upcoming Environmental Impact Review (EIR) on the bridge/alignment project should address. Please ensure the following items are included:	Non-CEQA/NEPA	Commenter qualifications/Introduction text
88	Paladin	Public Safety of Current Bridge and Its Existing Alignment. Conjecture surrounds the alleged lack of safety of the existing bridge/alignment. The EIR should provide a historical accounting and analysis of any actual safety issues (i.e., number of accidents involving automobiles, pedestrians and bicyclists over past 50~ years). This analysis will validate or refute the conjecture and provide fact based rationale for selecting the most appropriate bridge/alignment design.	Purpose and Need	Traffic accident/issue data for existing bridge
89	Paladin	Traffic & Pedestrian Use. Newell is a major bicycle route for children going to/from Jordan Middle School, and a street crossed primarily yet not exclusively at Dana Avenue, by many children each day making their way to/from Duveneck Elementary School. Sidewalks along Newell are a major pedestrian walkway used by Crescent Park, Duveneck - St. Francisco, and East Palo Alto residents to stroll, jog or walk pets daily. The EIR must study current and projected automobile traffic on Newell due to different bridge/alignment scenarios and the impacts of each of those scenarios on 1) the safety of children bicycling on and/or crossing Newell, 2) the safety of and disturbance of residents walking on sidewalks and crossing Newell, and	Traffic and Transportation	Pedestrian and bicycle safety

90	Paladin	3) the potential increases in noise, neighborhood disruption and ambience detraction.	Noise and Vibration	Noise impacts from increased traffic
91	Paladin	Specific issues the EIR should examine yet not limited itself to include 1) overall traffic count on Newell (number of, composition of (i.e., cars or trucks) and time of day cars/trucks travel on Newell, 2) speed travelled, 3) obeying stop signs and speed limits, 4) yielding to pedestrians, and 5) driving behavior when passing bicyclists in bike lanes.	Traffic and Transportation	Existing and projected traffic, speed, and driving behaviors
92	Paladin	Source & Destination of Traffic. The bridge/alignment project permanently impacts to character and ambience of the neighborhoods on either side of the bridge, yet the heaviest daily users of the bridge (today and more importantly in the future) may not live in the community. Crescent Park and Duveneck - St. Francis homeowners are being asked to shoulder consequences this project may bring to our neighborhoods in order to accommodate heavy users of the bridge who may not live in the community, possibly commuting from distant areas in the East Bay, or from San Jose, Redwood City, etc. The EIR must ascertain the homes an destination of current and projected users of the bridge and analyze the costs/benefits on the character and ambience of the neighborhoods relative to the usage of the bridge by the local homeowners.	Traffic and Transportation	Source of trips and trip generation
93	Paladin	Escape Routes for Crime. Crime is an issue sin the Crescent Park, Duveneck - St. Francis, and East Palo Alto neighborhoods. It has been speculated that the Newell Bridge facilitates crime as it allegedly serves as a quick and easy escape route. The EIR should include Palo Alto Police Department current and historical data to validate or refute this conjecture. The EIR should also seek Palo Alto Police Department expertise and preference regarding which bridge/alignment alternative best serves the neighborhood to mitigate crime.	Community Impacts	Crime

94	Paladin	Multi Use Zoning & High Density Housing in East Palo Alto (EPA). EPA is studying the possibility of changing zoning to accommodate the development of multi-use buildings and high density housing. The EIR must study the impact and consequences that may result to the Newell Bridge and the Crescent Park, Duveneck - St. Francis, and East Palo Alto neighborhoods if such zoning and respective projects are approved. The EIR must request EPA city government transparency in disclosing its goals, its plans and its timing related to such zoning changes and development.	Cumulative Impacts	East Palo Alto General Plan
95	Paladin	Flood Walls. There appears to be much confusion regarding the benefits, consequences and impacts of flood walls on addressing the prevention of flooding. The EIR must provide clarity regarding the purpose and benefits of flood walls and educate the community regarding the options being considered.	Project Description	Flood walls
96	Paladin	Interim Actions in Anticipation for Forecasted El Nino Weather. The current timeline indicates construction will not commences on flood control activity until 2018. With a predicted El Nino and the possibility of heavy rains this winter, the status quo presents a huge and undesired risk. The EIR must address (or must get the City of Palo Alto to address) this risk now and must provide general recommendations and specific and feasible actions that can be implemented immediately to mitigate the risk of flooding during the next 6-8 months. Thank you for your assistance on this matter.	Non-CEQA/NEPA	Interim actions for flood control prior to Project implementation
97	Price	This email is in regards to the Newell/San Frasquito Creek Bridge Replacement Project. I think this project is a great idea and should be completed without delay. I use this bridge every day to get to work and it is currently very dangerous to vehicles, bicyclists and pedestrians. Import changes to the bridge include TWO LANES and a SIDEWALK. Realignment and whatever is needed to prevent flooding are also important considerations.	Preference for Alternative	Alternative 3 and 4

98	Price	Once the current bridge is taken down what is the estimated time for completion of the new bridge? My concern is that the bridge will be removed and then during construction something will come up, like lack of funding, and the project will be sidelined for several months.	Project Description	Construction activities/timing
99	Proctor	Please give weighted consideration to Alternative 8, as the ONLY one under consideration that would eliminate the very dangerous blind zone affecting the confluence of the 2 principal arteries/directions involved--the southwest direction of Woodland & northeast end of the bridge on Newell. That is the principal flow of both cars and pedestrians whether going or coming from the Palo Alto side. Also, though EPA officials would not commit to rezoning plans for near future in the Woodland Triangle, the fact is that even now it takes upward of 15 to 20 minutes to get out of the locked in area via the University Avenue exit during rush hour in the AM, and makes Newell and Edgewood the only ways out in an emergency. Frankly speaking, the idea of converting the Newell bridge in to a one lane via, a la backwoods single lane lumber/fire break trail is crazy. There may have been a time when such a solution may have been practical but that time passed as soon as the EPA side of the creek built upwards, leaving behind the single family cottages that still dot the landscape. It is a solution more born of a barely repressed desire to be able to "raise the bridge over the moat" and keep undesirables out of the "keep" that is the Palo Alto side, than any real attempt at a solution for transiting safety and reducing flood danger. Perhaps those proponents are not aware of just how much gentrification has taken place here as a result of the Page Mill Properties fiasco that ousted many historical residents and replaced them increasingly with Stanford post-grads and techies.	Preference for Alternative	Alternative 4
100	Rappaport	Unfortunately, I will not be able to attend the Sept. 3, 2015 meeting regarding the Newell Rd. bridge, but I wanted to get you my comments on the Notice about the meeting dated Aug. 12, 2015. Attached are my comments on the Notice.	Non-CEQA/NEPA	Commenter qualifications/Introduction text

101	Rappaport	At the last community meeting a couple of months ago, the City staff admitted that to make the bridge more capable of withstanding possible concerns about flooding would not require the bridge to necessarily be made wider. This community DOES NOT WANT A WIDER BRIDGE. THAT SHOULD BE VERY CLEAR FROM EVERY COMMUNITY MEETING HELD OVER THE LAST 2 YRS.	Preference for Alternative	Alternative 1
102	Rappaport	Crescent Park clearly does not want more traffic through its streets, an increase in traffic using Newell Rd. or increase in vehicle speed on Newell Rd. These problems of an expanded bridge create more safety, congestion, and speed problems than is warranted when the main reason for considering a new bridge is possible flooding concerns. Pedestrians and bikers, as well as car drivers realize that caution must be used when crossing the bridge. This is why the current safety record for all traffic on the bridge has been so good. You must understand that the Crescent Park neighborhood does not want the character and peacefulness of this community negatively impacted by a much wider bridge. The flooding concerns can be dealt with without building a considerably wider bridge, which the City admitted at the last meeting.	Traffic and Transportation	Existing and projected traffic, speed, and driving behaviors
103	Rappaport	These statements are mischaracterizations as the existing bridge does safely accommodate two way traffic which will not be true if a much wider bridge is built. Pedestrian and vehicular traffic will ignore the caution that has been exercised for so many years and the general neighborhood traffic and pedestrian safety will be lost.	Purpose and Need	Traffic accident/issue data for existing bridge
104	Smith J	I highly recommend option one or two as I think it would tend to slow the traffic. A light at the bridge is probably the safest alternative. Cars travelling down Hamilton and Newell already speed through the neighborhoods.	Preference for Alternative	Alternative 1 and 2

105	Smith W	I live at 25 Newell Rd in EPA. I wish to reiterate that Alternative 4 is the design that makes the most sense, is the safest and will actually make it easier to mitigate the assumed racing traffic down Newell. As it is now there are blind corners and since people can't see if there is someone coming from PA and is on the bridge, traffic coming from University down Woodland don't really stop but come on through and may or may not stop and allow someone on the bridge to complete their crossing before they begin their crossing on the bridge. Although it may be true that there have been few accidents it is only out of sheer fear of hitting someone or being hit that people may come to a stop and allow the pushy one to come on through. Sight lines are important and being able to see all 4 stops, all four drivers and make eye contact, allows for deciding if that other person who may have gotten to their stop sign after you got to yours is really going to stop. This Newell Rd issue has not been created in any other area of PA that I know of so it should be made standard for a 4 way stop - clear sight lines makes for a safer bridge and crossing. That in itself will provide traffic calming. The bridge needs to be fully functional. Two lanes of traffic with standard widths for school buses (who use this bridge every day) to fire trucks to ambulances to garbage trucks and other wide loads such as UPS. Two bike lanes, one for each direction and two sidewalks for the same. And I liked the very early on drawing that included lamp posts and bump outs with benches for viewing the creek.	Preference for Alternative	Alternative 4

106	Smith W	I would also like to have my question answered regarding the traffic calming effects, if any, of the 3 sets of stop signs between the bridge with Edgewood, Hamilton and Dana having 4 way stops. I would like to know if there has been a study done. I am sure there was a study done before the signs went in and perhaps there can be a comparison. If there are reports of continued speeding and running of the stop signs then perhaps more police presence is required. I do see them sitting off to the sides on Hamilton and Dana and I do see them stopping people. But I have also observed cars rolling through the signs and then turning onto Dana, Hamilton or Edgewood so the complaint could go both ways. It is not just EPA people that some are claiming speed down Newell and put their children in danger of death. Residents need to contact the police with any infractions they observe including a license plate number and car description if possible.	Traffic and Transportation	Existing and projected traffic, speed, and driving behaviors

107	Smith W	When I lived on Yale street in College Terrace and we wanted traffic calming and circles and other ways to keep people from cutting through to avoid the lights at Cambridge, California and Page Mill and entering CT at College and then turning left onto Yale, we had to do volunteer, on-the-sidewalk observations with clip boards and writing down license plate numbers to see who was coming down the street (sometimes at 45 miles an hour) and turning at the above streets. We presented these plate numbers to the PA police (all this was at their suggestion) so they could trace the resident addresses of the car owners to see how much outside traffic was using Yale St. It was a real eye opener. And College Terrace got their traffic calming and parking permits to keep mostly Stanford students and employees from parking all day on the streets. I wonder if the people in Crescent Park could do the same? Get together in teams, get out a lawn chair, a clip board, a hat and some sunscreen and chose an intersection with stop signs - Dana, Hamilton, Edgewood, Newell Bridge - and begin recording all the people who speed through the stop sign intersections, who do rolling stops or not yield the right away to their fellow intersection stoppers as they bolt ahead of someone who may have been there first.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
108	Smith W	I feel that the Crescent Park folks are wanting to block a safe Newell Rd bridge claiming that the speeding and stop-sign running is terrible now and will only get worse with a fully aligned bridge. I would like them to help in proving that it is bad now. They got their stop signs when they asked, now I would like them to help prove that they have not worked or take it as the truth that the stop signs have in fact helped to calm traffic. This bridge is used every day by many people on both sides of it. Let's make it safe for everyone. And we provide full drainage in this area of the fully running creek. Thanks for taking my comments.	Purpose and Need	Traffic accident/issue data for existing bridge

109	Stauffer	It is nice to see some small progress in moving forward to solve the flooding problem on the San Francisquito Creek. However, it is most disappointing to see the date for protecting the Crescent Park area moving out toward 2020. As we all know, the "choke" point in the creek is the Chaucer-Street Bridge. With such a huge potential monetary damage at risk, it would seem that something could be done to move faster in solving this problem which ultimately requires replacement of the Chaucer Street Bridge.	Project Description	Relation to Chaucer Street Bridge
110	Thompson G	I live on Newell Road (since 1976). The traffic the past 5 years has increased exponentially. In addition, the speeds have increased and several cars each day slow very little for stop signs. This route is extensively used by school children on bicycles. Putting in a bridge option that would further encourage more traffic and speed would be to the strong detriment of local residents on both sides of the bridge.	Traffic and Transportation	Pedestrian and bicycle safety
111	Thompson G	I have followed the traffic several times and most of it is merely a shortcut for out-of-area commuters. Instead, they could continue on Embarcadero/101 and maybe take a few seconds longer. Please DO NOT make the problem worse. I cannot believe the EPA residents between Woodland and 101 are not experiencing similar traffic issues, especially the homeowners there.	Traffic and Transportation	Source of trips and trip generation
112	Thompson G	One-lane is adequate for EPA and PA homeowners. We owe the out-of-area commuters nothing!	Preference for Alternative	Alternative 1
113	Thompson M	I am strongly in favor of keeping the existing alignment of Newell Road. It is a speed deterrent. I live on Newell, and the traffic has increased during commute time! We have lived on Newell for 40 yrs. There has never been an accident. Cars have to slow down which helps reduce commuters who race through residential streets to get to Newell. What make me angry is that nothing has happened in 18 yrs. to avoid flooding!! All that's happened are meetings and paid consultants. Alternative 1 would help to mitigate traffic at commute time.	Preference for Alternative	Alternative 1
114	Wee	As a resident in the area, I wish to convey my choice on the Newell bridge to consist of only one lane please.	Preference for Alternative	Alternative 1

115	Wegbreit	I have lived at the corner of Dana Avenue and Newell for nearly forty three years and have seen enormous changes in traffic. I am very concerned about the chance that a new wider bridge will bring even more traffic to an already overly busy street. When we first moved to Palo Alto we had three young children. They all had friends on the other side of Dana and rode their bikes or walked across Newell to friends on the other side of Dana. If I had young children today, I would never permit them to do so. The cross-Dana traffic is hazardous. I frequently walk downtown or to the Main Library and am greatly disturbed by the sight of cars driving from Channing toward the bridge at excessive rates of speed. The Newell corridor is important to our city because it is the gateway to Duveneck School, the Main Library, the Arts Center, the Children's Library and Children's Theater. These are the institutions that drew our family to Palo Alto. Access to them must be protected by insuring the safety of the Newell Corridor. Its is barely safe now and I am deeply concerned about the new wider bridge options.	Preference for Alternative	Alternative 1
116	Wiley	Since the proposed Newell Bridge (and the proposed 900' of channel widening) is an integral part of the SFCJPA's long-term plans to achieve 1% flood protection, and since the new program EIR for the reach between the University Avenue Bridge and Highway 101 that includes the Newell Street Bridge has not started yet, please include an analyses ofthe bridge size, height and design environmental impacts of all recently (2010- 2015) SCVWD and SFCJPA proposed 1% flood flow solutions in the Newell Bridge area. Specifically include the SCVWD and SFCJPA proposed plans to A. Achieve 1% protection by floodwalls between University Avenue Bridge and Highway 101. B. Achieve 1% protection by box culverts under Woodland Avenue between University Avenue Bridge and Highway 101. C. Achieve 1% protection by upstream diversion (multiple proposals) D. Achieve 1% protection by upstream detention (multiple proposals, including the hole in Searsville Dam) E. Achieve 1% protection by C. and D.	Cumulative Impacts	SFCJPA projects

117	Wiley	Since this EIR will most likely be running concurrent with the new program EIR for the reach between the University Avenue Bridge and Highway 101 that includes the Newell Street Bridge, please include full analysis of all the solutions to achieve 1% protection proposed in the new EIR as it is is finalized. In addition, please include the impact of the approximate 10% reduction in the 1% flow that the SCVWD staff, the SFCJPA staff and the ACE staff are currently anticipating.	Cumulative Impacts	SFCJPA projects
118	Wiley	Finally, it is highly unlikely that residents of Palo Alto and Menlo Park will accept floodwalls between University Avenue and Middlefield Road. Please analyze in detail the impacts on bridge size, height and design if 1% protection is to be achieved without any floodwalls between University Avenue and Middlefield Road.	Project Description	Flood walls
119	Hallberg	Thanks so much. I don't have any particular on the—I don't know about the environmental report and what needs to be done here. Just a general comment, and I haven't attended the other meetings that have happened on this topic. My house was flooded in '98. It's been a lot of years since then. It just worries me that I—it just seems that it takes a longer, it's incredible. I mean in that period that we've all lived in Palo Alto, the Bay Bridge got changed, right? We all saw that happen, right? This is a little Podunk bridge in a town of 50,000 people, and it's taken that long to do this. Just my view is compared to the danger we all face from this creek flooding, I frankly don't care what kind of a bridge we put in there. I live in the neighborhood, and I know we deal with parking issues and we've got another solution for that now. My only comment is let's do it. I don't even know how we're going to decide on this thing and when it's going to happen. Every meeting I've gone to, it has gone from 2014 to 2015, and now I'm seeing 2017. Of course, we're all panicking because we know about El Nino. So that's just my worry. Just do it, that would be my comment.	Preference for Alternative	Alternative 1, 2, 3, and 4

120	Wiley	Hi, I'm Jim Wiley. I'm a creek-side resident. I live in Menlo Park, just downstream from the Pope-Chaucer Bridge. I wanted to talk a little bit about the flood-related issues related to this creek. This bridge project is being designed with the assumption that a flood wall system is going to be installed eventually to protect against the 1 percent flood upstream from University Avenue up in the direction of Middlefield. The flood wall, for example, that was proposed to be put in at the Pope-Chaucer Bridge would have been 6, 7 or 8 feet tall. You can imagine that that doesn't do much good for the environment of the creek. In fact, it would require removing all of the creek side trees, because you can't have trees near a flood wall because it undermines the flood wall. This has created quite an uproar in the community. Basically flood walls have been named as a non-starter, yet this bridge is still being designed as if the flood walls are going to happen. If the flood walls aren't going to happen, and I don't think they ever will, this bridge can be substantially smaller. You may not have to strip 900 feet of creek bank out and remove all those trees and put in vertical walls on the edge of the creek. In fact, the existing bridge alternative of do nothing may be fine if the alternative to the flood walls to solve the 1 percent flooding is upstream diversion or upstream detention. Those options are entirely viable and are being studied by a separate EIR by the JPA. In that case, you don't have to replace the bridge for flooding reasons. Now, there's other reasons you might want to replace a 103-year-old bridge, but flooding is not the reason, if flood walls aren't going to happen. Thank you.	Purpose and Need	Flooding

121	Pan	Hi, everybody. My name is Mike Pan. I'm the close family friend for Mr. Yang Shen. We just recently acquired the property literally right next to the bridge, 1499 Edgewood. Our main concern, obviously it's good to prevent flood for everybody. At same time, if you're going to align the road to East Palo Alto, our main concern is really safety. Right now, one reason we bought the property is that it's really a deter for people running stop signs or whatnot. If we can use the existing, just put up some street lights, even better, right? Cheaper. If we're not going to do the flood walls, then why spend money on something that we don't really need? There's people that mentioned about safety that right now even though you have a stop sign, people are still going to run the stop sign. Because there's not a straight shot, right, it's already deterring that. Worst case scenario, if we're willing to build something, maybe we can consider the first one. We agree. Some of our neighbors will talk about it is safety is our Number 1 concern. We have children, little children, live at the property. There's a lot of children around Crescent Park area. Not increasing the speed, maintaining a controlled environment, I think is our key and also save money on the long-terms. That's it. Thank you.	Preference for Alternative	Alternative 1
122	Kelly	Hi. My name's Doug Kelly. I live at 1535 Edgewood, which is about a block away from the bridge. I've got a couple of concerns. I too have a family with little kids, 10, 7 and 4. People, they already run stop signs in my neighborhood. I've never seen anybody stop for any of the stop signs in my neighborhood. I'm worried that a straight shot through the neighborhood just is going to make traffic unbearable. I'm really worried that anything other than a one-lane bridge is really going to change the character of our neighborhood. I moved in the neighborhood three years ago from Old Palo Alto, because you get a nicer piece of property and it's a quieter neighborhood. I really like it, and I love my neighbors, and I want to see them stay.	Preference for Alternative	Alternative 1

123	Kelly	Here are my concerns that I think the EIR, environmental impact statement should address. I like the blind nature of the existing bridge, because it really is a natural break to traffic. You're suicidal if you do anything but a crawl over that bridge, and that's a good thing in my mind. I use that bridge twice a day every day. I know what I speak about. I've never seen an accident on the bridge; I've never seen a pedestrian hit on the bridge, because everybody is cautious. That's not a bad thing. I really think the traffic speed is a giant issue for us in the neighborhood. I think anything other than a crawl through that corridor is going to completely change the traffic, and we'll see people offloading from Hamilton trying to bypass University Avenue and drastically increase traffic through our neighborhood. The issue we have with people not stopping now is going to get worse. I'm just worried one of my kids is going to get hit.	Traffic and Transportation	Existing and projected traffic, speed, and driving behaviors
124	Kelly	I also worry about crime in the neighborhood. There's been crime in my neighborhood before. My house has been broken into. I know from talking to police officers from the Palo Alto Police Department that in Old Palo Alto the crime was really directly proportional to how close you were to Oregon Expressway, because it's a great escape route. I do not want a fast-access escape route from my neighborhood. I'd like it slow and crawl, and that's why the crime rate we have is what it is.	Community Impacts	Crime
125	Kelly	Noise is already an issue on Edgewood, and it's an issue over on Woodland as well. I worry that people kind of racing to make a light, and I see that after they get over the bridge, once they get on Newell, it's like a drag strip.	Noise and Vibration	Noise impacts from increased traffic
126	Kelly	They have their own issues in East Palo Alto, because there's lots of little kids over there too. Again, I just think anything other than something that maintains the existing angle and keeps it at a crawl is really, really bad for the neighborhood. That's the extent of my comments. Those are things I'd like to see focused on in the environmental impact statement. Thank you.	Preference for Alternative	Alternative 1

127	Smith W	Hi. I live in East Palo Alto. As a result of some of the traffic calming requests before, two more stop signs have been put in on Newell in Palo Alto. Months ago I sent a note to someone here at City Hall and asked if somebody had done a traffic study as to whether or not those stop signs were working, if there was traffic calming. I'd like to know if that can be done regarding this environmental impact statement. I think that's a key component, because I hear everybody saying everybody's running stop signs. If you observe that and that is the case, then you need to complain to the police department so that they can provide more. I see them ticketing; I seem them hiding at intersections and waiting for people to do those slow roll through the stop sign. What kind of effect has this had? I think this would have an effect on the EIS as well.	Traffic and Transportation	Existing and projected traffic, speed, and driving behaviors
128	Smith W	Also, I am in favor of full alignment, because I think visual sight lines for stopping at an intersection is primary. Not continuing to have sight lines that are around corners, that don't give you a clear view of who's coming, who is going to run that stop sign that you can't see as you stop and then pull out into the intersection assuming that someone else has stopped and they're not going to because you can't see them to judge your own procedure through the intersection. That's my comment about what I think would be the safest thing, then you do traffic control for an aligned intersection and maintain that traffic control.	Preference for Alternative	Alternative 4

129	Fisher	Hi, Kevin Fisher. I live on Alester Avenue in Palo Alto. My house was flooded in '98. It was a traumatic event for my family and for all the others who experienced that. It's frustrating that almost 20 years on we really haven't done anything yet, and it's going to be at least 20 years from the flood until the first shovel full of dirt is turned over for this bridge. I do appreciate that we're focusing on solving the problem one step at a time. I think for the first ten years there was the idea about this grand plan and let's get $100 million and do a big project. This feels like the right approach; solve it one step at a time. This is a complicated problem, but at least right now we're talking about one bridge. I'm discouraged to hear the gentleman on the Menlo Park side trying to drag this one project into the overall morass of flood walls, upstream detention. Let's focus one step at a time. Little by little, we're going to solve this problem, but not if we turn it into a big circus involving 50 extraneous factors.	Preference for Alternative	Alternative 1, 2, 3, and 4
130	Huerta	Bernardo Huerta from East Palo Alto, California. What I would like to see, I mean, East Palo Alto would be impacted if you were to widen the creek. Most East Palo Alto residents would not be for impacting the parking in East Palo Alto. Just that retaining walls or flood walls be the same height on both sides of the creek. I noticed that on the Palo Alto side there's a lot of cement block fences that would retain more water. If it were ever to flood, even though we fix it, it would flood in East Palo Alto. I'd like this environmental impact to look at that. If it floods, it floods on both sides, not just in East Palo Alto. I'd like to see, yes, that these meetings be also held in East Palo Alto. There's only very few East Palo Alto residents here. We want equal access, so please have your meetings also in East Palo Alto and sit down with us. Thank you.	Project Description	Creek widening

131	Fisk	Yes, my name is Bob Allen, and I've lived within 300 feet of the creek for the last 30 years. I even lived within that same period of time north of University in Menlo Park next to the creek. First of all, I'd like to thank the City of East Palo Alto for being so generous to the children of East Palo Alto. East Palo Alto children who live within 300 feet or even more of the creek are allowed to use the parks that are on Channing, the children's parks. They're allowed to use the library. That being said, the safety of the East Palo Alto children going across that bridge is paramount. The wider bridge with the sidewalks are really good for the children of East Palo Alto and for their safety. I heard in the presentation a comment that—I think it was from you, Joel—that the Santa Clara Valley Water District has suggested the bridge can be lowered in its height. I'd like to hear a little bit more about that if you can later. I would like to see the bridge fully aligned with the East Palo Alto side of Newell Road. It gives the best chance to see traffic coming along Woodland Avenue. Right now, when I'm coming from the library in Palo Alto and cross the bridge, I stop right at the bridge and then I ease about a few feet ahead and then look over to the north to see if there's a car at the stop sign. That's a problem that the fully aligned bridge would eliminate that.	Preference for Alternative	Alternative 4
132	Fisk	The other thing—and I think this is the responsibility of Palo Alto to pursue—is that a few owners ago, like three or four, of the property that we heard about from the gentleman that commented first moved the alignment of that fence to align it with Newell Road and not with the actual property line, which I think the City of East Palo Alto regardless of the alignment of the bridge should take back that land grab from 20 years ago, because that's really the case there and have the current owners move the fence and re-landscape the portion of the corner so that that isn't going to cause a time delay when the ground is struck to build this bridge in two or three years. Thank you very much.	Non-CEQA/NEPA	Commenter qualifications/Introduction text

133	Dinwiddie	Thank you. My husband and I have lived in the neighborhood for 52 years now, so we've been there for a long time. It's a wonderful neighborhood, and we love it. We have two concerns. Can you hear me? Okay. Of course, we're concerned about flood, but I do want to point out the irony in the '98 flood was for our side of the creek, the Palo Alto side. The water that came down, came down a river on Hamilton, and it actually came from where the creek hits the Chaucer-Pope Street Bridge. Now, what came over on the other side, I realize, but I understand the reason it didn't come from where our bridge is, onto those properties on Edgewood, is because actually it's higher, the land is just higher there.	Purpose and Need	Flooding
134	Dinwiddie	My biggest concern is traffic. We walk our dog all the time; we're always in that area. It's an area where people walk a lot; it's an area that has a lot of children, and it's an area that has a lot of elderly people like me, because we love it and we've lived there for a long time. I am concerned about the traffic. I think that the aligning the bridge is going to make a much bigger problem than we have now. What happens is people don't go very fast. That's the one stop sign we can be sure cars are going to stop at, because they have to kind of slow down before they come over that bridge and then they really do stop. I do think it's important to have a pedestrian pathway or two, because of children and of bicycles. I really urge you to take into the account the traffic. We're getting more traffic all the time, and it does become a safety issue. Thank you.	Traffic and Transportation	Pedestrian and bicycle safety

135	Mulvey	Thank you. My name is Trish Mulvey. I've lived close to the creek since about 1951, when I was 8. I went away to college, so I was gone for a while. Anyway, a couple of thoughts. First, I would really like consideration of the opportunity for a separated bike lane. East Palo Alto is in the process of getting ready to construct a bike and pedestrian overcrossing over 101 from their end of Newell, that ends at 101 by the 7/11, from there over to the other side. The opportunity to do the kinds of things about building cross-community neighborhoods with more bike and pedestrian access, I think, is truly exciting, but I want to make sure when they get to the Newell Road Bridge, that the bikes and pedestrians have a safe environment.	Project Design Considerations	Separate bike lanes
136	Mulvey	I really like what Kamal said about calling it Friendship Bridge 2. I've been thinking about it as Good Neighbor Bridge 1. Whatever we call it, I would really like to see design elements that allow in particularly the bike and pedestrian area for people to have a way to pause and enjoy just being by the creek. On the Palo Alto side, as you know, you can't really—the houses back up to the creek, so people don't have visual access. On the East Palo Alto side, the existing flood walls are high enough that you can't see the creek. The only opportunity to really know that there's a real natural creek there is when you're crossing the bridge. I'd like to see that recognized and celebrated.	Aesthetics	Visual impact of Project on natural creek
137	Mulvey	My last question, with the addition of the Water District request to make those channel modifications, this has fundamentally, I think, changed the relationship of this environmental review process beyond just the bridge to in some fashion either duplicating or potentially threats of piecemealing the EIR process that the Joint Powers Authority has underway. I'd like the documentation and descriptions in future meetings to be able to be clear and explain why this is an okay approach since, as a couple of speakers have said starting with Mr. Wiley, the decisions that are being made about that downstream alignment and widening are fundamental to the overall JPA project. Thank you.	Project Description	Independent utility

138	Barlevy	My name is Al Barlevy. I live in East Palo Alto, actually closer to the Dumbarton Bridge than this bridge in question. Nonetheless, I do use this bridge, so I am a stakeholder. I definitely understand the concern of the residents of Palo Alto that you want to make sure that you don't get additional traffic, because you want to keep a quiet neighborhood. I don't believe that keeping a bottleneck bridge is the right approach. There's definitely other measures like a lot of stop signs, stop lights, speed bumps. The bridge is just dangerous in my opinion. Let's remember that when it was built 103 years ago, cars were called horseless buggies because most of the vehicles were horse carriages that were crossing the bridge. It's just not appropriate for today. We definitely need to replace that bridge, even if there was no issue with flooding. The bridge would have to be replaced just because you would never design such a bridge today. We don't have horseless buggies anymore. Finally, what I want to say is that it's important to keep in mind that the bridge is for not just cars but also for bicycles and pedestrians, as was said. We really have to make sure that it's the right bridge. The way the current alignment is, I don't know the history of the neighborhood, whether one side of Newell was built after the others, but it just looks like it's a (inaudible) the way that the alignment is. I think anything less than a full realignment doesn't make sense. Since we have to tear down the bridge anyway, we're not going to modify the bridge, we're tear it down, might as well make it right this time.	Preference for Alternative	Alternative 4

139	Neff	I'm Robert Neff. I've been across the bridge a few times. I live across town; I'm on the Bike Advisory Committee. I wanted to say I hope the EIR will consider traffic calming techniques to reduce the average speeds on Newell. Actually the bridge as it is, 18-foot wide, creates calm traffic because it's so narrow. That actually makes it quite safe. Not so good for pedestrians, but it's safe. The traffic has to go slow, so you end up with slow speeds and it's safer. If we replace that with 14-foot wide shared lanes for bikes and cars, for the cars it will look like a 14-foot wide lane which looks like a lane on El Camino Real. People, when they see wide lanes, they think that they might as well just drive fast. Even with the stop signs, the 14-foot wide lane and the improved grading will tend to make people drive much more quickly. I hope the EIR will consider ways you could redesign the roadway that would reduce speeds and that would be part of the process. For example, if you put in bike lanes that are 5-foot wide and then give yourself only 9-foot wide lanes to go across the bridge, that will tend to slow people down. If you take out the center line, then people think they should be driving near the middle, and then the oncoming cars becomes something that will slow people down as well. There are techniques you can use and, of course, we can always put in speed bumps. There are techniques you can use that would make the bridge look narrower and look slower and make people think, "Well, I shouldn't be driving so fast on this road. It looks a little bit tight."	Project Description	Traffic calming measures
140	Hammer	Hi, I'm Xenia Hammer and live in Palo Alto. Several people mentioned the need for careful consideration of traffic. I certainly agree with that, to include traffic calming measures in consideration for this project.	Project Description	Traffic calming measures

141	Hammer	An earlier speaker also mentioned an issue of flood walls. I was really confused by that, because flood walls are not part of this project. There's no flood walls involved here. Moreover, as I understand from the work that the JPA is doing on other parts of the creek, you can get a tremendous amount of flood protection with no flood walls, and you can get hundred-year flood protection with other measures, such as upstream detention. I don't think flood walls is at all any kind of a relevant part of this project. I don't know—Len, do you want to add anything to that? I don't know if it's an appropriate time.	Project Description	Flood walls
142	Ball	Ben Ball, lived on Edgewood Drive for the last 20 years, have raised half my family and still have two kids at home that we are raising. A couple of things specifically on the scoping of the project. Myself and several other of my neighbors have attended the East Palo Alto, in East Palo Alto. I'm sympathetic to your comments about sharing location for meetings, but spent a lot of time in East Palo Alto at their 30-year planning process, which has developed over the long course of our little bridge.	Non-CEQA/NEPA	Commenter qualifications/Introduction text
143	Ball	Sadly and against the wishes of myself and many of the other Palo Alto residents, East Palo Alto has approved zoning in that area immediately adjacent on the other side of the bridge for eight-story multiuse development which will have a massive increase in traffic. The scoping of the EIR absolutely needs to address East Palo Alto's long-term plan specifically for that area. When this process started, we were told that we were crazy to assume that anything like that would ever happen, and lo and behold it's already been approved from a zoning perspective. The report absolutely needs to take into account that.	Cumulative Impacts	East Palo Alto General Plan

144	Ball	A primary concern for me with small children is Newell Road on both sides of the creek is a Safe Route to School, and so we need to address the traffic impacts of that. I could not disagree more with those who think that realigning the bridge is a good idea. It's an absolute disaster waiting to happen, because children will be killed. I run on that street, on Edgewood and Newell, every day. Every day there's cars going through that, and that's with no ability to start and ramp quickly with speed.	Traffic and Transportation	Pedestrian and bicycle safety
145	Ball	While perhaps ugly to some, it is a natural governor, both the width of the current bridge as well as the alignment of the current bridge. That needs to remain, because that is the best traffic calming measure that we possibly have. In terms of those, I just want to make sure, yourself and others have intimated that this bridge isn't safe. By the City's own traffic statistics, there have been no vehicular accidents, no pedestrian accidents, and no bicycle accidents on the current bridge. It would be helpful when you refer to safety and those types of issues, that you cite the actual statistics, so people can draw their own conclusions from the data.	Purpose and Need	Traffic accident/issue data for existing bridge
146	Ball	Finally, in the EIR please address the full width. I find your depiction of the bridge misleading unless you get out a ruler and try to do it. The current bridge is about 20 feet wide outer edge to outer edge. When you're talking about the proposed super bridges that you've got in there, 14 feet width is just for the car traffic. You also have said in the past that you have to have room for both bike lanes which would be additive to that as well as the pedestrian walkways which would be additive to that. You're talking about more than a doubling of the width of the current bridge. All of that data needs to be accurately forecast.	Project Description	Bridge width

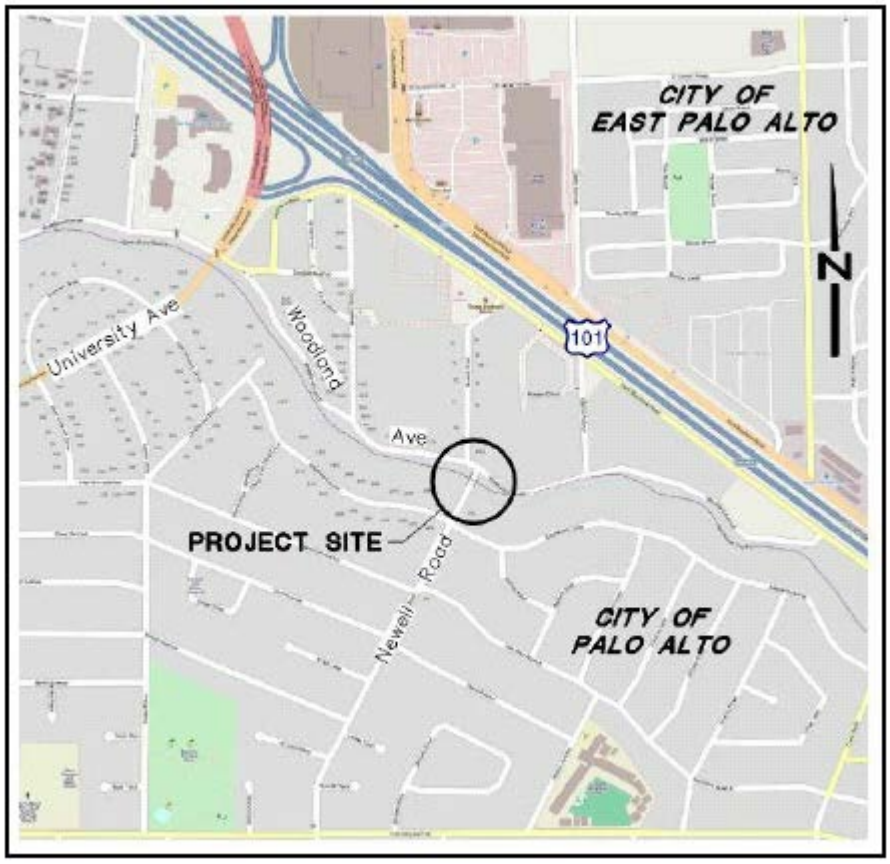
147	Ball	Sorry, I said final, one other thing. I was assuming that the flooding issue was created by the buttresses in the bridge. Can the impact report address no increase in height, but simply removing the buttresses so that we're not necessarily trying to solve for a one-year flood, which is an artificial thing. Len, I'd be interested to hear because solving for one-year floods, I'm completely on the same page as Jim Wiley. It will mandate flood walls being upstream and downstream, because the natural creek is not big enough to support a one-year event. If you raise the bridges and that is no longer a choke point, there are going to be other choke points unless you build flood walls. This EIR should address don't increase the height of the bridge to assess the impact of flooding in that situation. Thank you.	Project Description	Bridge height
148	Wong	Thank you. I live on Palo Alto Avenue near the Pope Street Bridge or Chaucer Bridge. I hear your concerns, everybody's concerns about not flooding and not having a lot of fast-moving traffic. I think that the gentleman who talked about traffic calming, maybe we could make the lanes narrow for the cars and have a separated area for the bikes. We're in the 21st century, and we have too many cars. We actually should be encouraging people to ride their bikes. Now, I would ride my bike a lot more than I do, except I am petrified on most of the streets where you cannot ride a bike. You should be able to ride a bike safely. Yes, we should not give so much room to the cars. Make them slow down, but that doesn't mean we should suffer and not have bike lanes and not have a nice bridge.	Project Description	Traffic calming measures
149	Wong	In terms of worrying about flood walls, the lady, Ms. Hammer, talked about don't worry about the flood walls; there aren't going to be any. There might be, and I am very concerned there might be because it's across the street from my house. I actually sent in a letter to the Joint Powers to make my suggestions on how to avoid flood walls and how to make this. Basically I think it's important that this be considered in its entirety; the bridge over there and the bridge over here. What happens at the bridge at Chaucer does impact, because a lot of people are not going to want flood walls. If you don't have flood walls, how are you going to deal with it?	Project Description	Flood walls

150	Wong	I hear you say, "Oh, we can lower the bridge here." I wouldn't do that; I would make it as high as possible because that is the reason we are in trouble. Somebody way back decided to make a perfectly level, a lovely bridge, into a arched bridge, so they narrowed the bridge because it was artistic. That is why we got into this problem. Because they didn't have the foresight to say, "Well, if we make it artistic like a lovely European bridge and nice tunnel under the bridge that there would be flooding problems later on." I would not be narrow and short-sighted and say, "Let's make the bridge low," because you never know. I would make it as nice as you can, but don't lower it.	Project Description	Bridge height

Newell Road/San Francisquito Creek Bridge Replacement Project

Project Location

The Newell Road Bridge Replacement Project is located on Newell Road at the crossing of San Francisquito Creek. The creek forms the boundary between Palo Alto and East Palo Alto, as well as the boundary between Santa Clara County and San Mateo County.



Project Vicinity Map
No Scale

Project Description

The City of Palo Alto Public Works Department is managing a capital improvement project to replace the existing Newell Road Bridge at San Francisquito Creek (SFC). City staff is coordinating closely with staff from the City of East Palo Alto, the San Francisquito Creek Joint Powers Authority (SFCJPA), and the Santa Clara Valley Water District (Valley Water) on this project of regional significance and impact. The primary purpose for replacing the bridge is to maintain connections for vehicular, bicycle, and pedestrian transportation across San Francisquito Creek at Newell Road while avoiding the diversion of a significant number of vehicles to adjacent streets, significant increase in the number of vehicles using Newell Road, an increase in average vehicle speed on Newell Road, provide a pedestrian sidewalk and improve bicycle access across San Francisquito Creek at Newell Road, improve safety for all modes of transportation across San Francisquito Creek at Newell Road,

design a bridge that accommodates increased flows related to San Francisquito creek improvements to address anticipated flooding risk and upgrade the channel width beneath the bridge to allow for the 50-year storm event (7,500 cubic feet per second [cfs]) to pass.

The existing reinforced concrete bridge, constructed in 1911, is also considered functionally obsolete due to its narrow width, severe vertical profile, and poor sight distances. The environmental report analyzed four build alternatives (Build Alternatives 1–4) and the No Build Alternative. Build Alternative 2 is the Locally Preferred Alternative (LPA) and "the project" for CEQA purposes. Project improvements would extend approximately 300 feet along Newell Road (175-feet on Palo Alto, 125-feet on East Palo Alto) and 300 feet along Woodland Avenue.

Newell Road is classified as an urban collector street and carries an Average Daily Traffic (ADT) of approximately 3,450 vehicles per day. The existing bridge is a 22-foot-wide (18-foot-wide travelled way) by 40-foot long, concrete reinforced through girder structure. The existing bridge has no provision for bicycle or pedestrian traffic.

The proposed replacement bridge will be a 41.50-foot-wide by 80-foot-long structure with two 14-foot-wide shared lanes (11-foot vehicle lane and 3-foot bike lane/shoulder), two 5-foot wide sidewalks and two 1'-9" Type 80SW Barriers. This configuration will greatly improve bicycle and pedestrian access and safety. Improved bicycle and pedestrian access across the bridge will fit in well with the City of East Palo Alto's plans to construct a bicycle/pedestrian overcrossing of Highway 101 that will have its western landing at West Bayshore Road and eastern landing at Clark Avenue.

The Newell Road bridge is within the reach of a study being conducted by the SFCJPA and the Valley Water to identify proposed channel and bridge improvements that will alleviate flooding issues and provide a 50-year storm event protection for local residents and businesses. The new clear span between abutments of 80-feet matches the distance between the top of the SFC banks, allowing the new abutments to be constructed outside of the creek's waterway including high flow events. In

order to accommodate the 50-year storm event protection, Newell Road Bridge will need to be raised approximately 1.6 feet above the roadway profile both in Palo Alto and East Palo Alto. The road profile will need to be raised approximately 4-feet maximum on the adjacent segments of both Newell Road and Woodland Avenue on both sides of the bridge as well. This will result in a series of retaining walls at the back of sidewalk alongside the two adjacent single-family residential properties on Newell Road in Palo Alto and alongside the two apartment complexes at the Woodland Avenue/Newell Road intersection in East Palo Alto. The height of retaining wall will vary with an expected maximum of approximately 4.7 feet in East Palo Alto and 4 feet in Palo Alto. The profile of the retaining walls will mimic that of the roadway approaches on both sides of the bridge. A railing will be required along the top of the retaining wall in order to provide for pedestrian safety in areas where there will be a vertical differential between the top of wall and adjacent ground greater than 10 inches.

Project Alternatives

The project design team evaluated four basic project alternatives for the replacement of the existing Newell Road Bridge:

Build Alternative 1: A one-lane bridge with two-way traffic (under signal control) on the existing alignment of Newell Road.

Build Alternative 2 (LPA): A two-lane bridge (with stop signs) on the existing alignment of Newell Road.

Build Alternative 3: A two-lane bridge (with stop signs) on a partial realignment of Newell Road.

Build Alternative 4: A two-lane bridge (with stop signs) on a full realignment of Newell Road.

Build Alternative 1

The following roadway improvements are unique to Build Alternative 1.

Build Alternative 1 would remove the existing bridge structure and construct a new one-lane bridge with bi-directional traffic on the existing alignment. Only one direction of travel for vehicles and bicycles would be provided on the bridge at a time.

To eliminate all potential conflicting vehicle movements, Build Alternative 1 would require complete signalization of the intersections of Newell Road with Woodland Avenue and Edgewood Avenue in order to control the direction of travel on the bridge and adjacent roadways. One additional signal would be provided for the sole residential driveway on the Palo Alto side of the bridge to indicate the direction of traffic on Newell Road at all times.

Build Alternative 1 would provide bicycle access across the bridge via shared vehicle/bicycle lanes (sharrows), but bicycles would only be allowed to travel in the same direction as the vehicle traffic. Control of bicyclist movement would rely on the ability/willingness of bicyclists to obey the traffic signals at each intersection.

The new bridge would be approximately 4 feet higher than the existing roadway profile at the bridge to improve flood hazard protection for the adjacent communities. Newell Road roadway would be raised 3.5 feet on the Palo Alto side in order to meet the higher profile of the new bridge. On Palo

Alto side retaining walls (approximately 120 linear feet by 12 inches wide, varying between 1 foot and 4 feet in height) would be required on both sides of Newell Road to limit the right of way (ROW) needs for the Project.

On the East Palo Alto side of the bridge, Woodland Avenue and Newell Road intersection would be raised 4.9 feet to meet the higher bridge profile and would require approximately 300 feet to conform to the existing roadway to the east and west of the bridge. Newell Road would also require approximately 125 feet of improvements. Retaining walls (approximately 490 linear feet by 12 inches wide, varying between 1 foot and 4.7 feet in height) would be required along the north and south side of Woodland Avenue and both sides of Newell Road to limit the ROW needs for the Project. The south side of Woodland Avenue would use the existing flood wall to support the raised roadway.

Build Alternative 2

The following are roadway improvements unique to Build Alternative 2.

Build Alternative 2 would remove the existing bridge and construct a new two-lane bridge on the existing bridge alignment. This build alternative would include bicycle access on both the northbound and southbound lanes of Newell Road via shared vehicle/bicycle lanes (sharrows). Two feet-wide sidewalks would also be provided.

Build Alternative 2 does not realign the existing north and south intersections with Woodland Avenue, but clear sight distance would be provided through a combination of red-curb striping, providing either no landscaping or landscaping that does not exceed 30-inches in height, or bridge barriers would be either open spaced concrete walls or railings.

The new bridge would be approximately 4 feet higher than the existing roadway profile at the bridge to improve flood hazard protection for the adjacent communities. . Newell Road roadway would be raised 3.5 feet on the Palo Alto side in order to meet the higher profile of the new bridge. On Palo Alto side retaining walls (approximately 120 linear feet by 12 inches wide, varying between 1 foot and 4 feet in height) would be required on both sides of the roadway to limit the ROW needs for the Project.

On the East Palo Alto side of the bridge, Woodland Avenue and Newell Road intersection would be raised 4.9 feet to meet the new bridge profile and would require approximately 300 feet to conform to the existing roadway on the east and west sides of the bridge. Newell Road would also require approximately 125 feet of improvements. Retaining walls (approximately 490 linear feet by 12 inches wide, varying between 1 foot and 4.7 feet in height) would be required along the north and south side of Woodland Avenue and both sides of Newell Road to limit the ROW needs for the Project. The south side of Woodland Avenue would use the existing flood wall to support the raised roadway.

Build Alternative 3

The following are roadway improvements unique to Build Alternative 3.

Build Alternative 3 is identical to Build Alternative 2, except that Newell Road south of Woodland Avenue would be partially realigned (approximately 30 feet) so that the degree of offset between the

existing north and south intersections with Woodland Avenue would be reduced compared to the existing condition. Two five feet wide sidewalks would also be provided.

Build Alternative 3 provides an intersection where the centerline-to-centerline connection on Newell Road from Edgewood Road to Woodland Avenue is partially aligned, which would improve sight lines from Alternative 2 for vehicles, pedestrians, and bicyclists entering the intersection.

The new bridge would be approximately 4 feet higher than the existing roadway profile at the bridge to improve flood hazard protection for the adjacent communities. Similar to previous alternatives, the entire Newell Road roadway would be raised 3.5 feet on the Palo Alto side in order to meet the higher profile of the new bridge. Retaining walls (approximately 120 linear feet long by 12 inches wide varying between 1 foot and 4 feet in height) would be constructed on both sides of the roadway to limit the ROW needs for the Project.

On the East Palo Alto side of the bridge, Woodland Avenue and Newell Road intersection would be raised 3.7 feet to meet the new bridge profile and would require approximately 275 feet to conform to the existing roadway on the east and west sides of the bridge. Newell Road would also require approximately 125 feet of improvements on Newell Road on the East Palo Alto side to conform to the existing sidewalks, driveways, curbs, and gutters. Retaining walls (approximately 490 linear feet by 12 inches wide, varying between 1 foot and 4.45 feet in height) would be required along the north side of Woodland Avenue and both sides of Newell Road to limit the ROW needs for the Project. The south side of Woodland Avenue would use the existing flood wall to support the raised roadway.

Build Alternative 4

The following are roadway improvements unique to Build Alternative 4.

Build Alternative 4 is similar to Build Alternatives 2 and 3, except that Newell Road south of Woodland Avenue would be fully realigned (approximately 90 feet) to eliminate the offset between the existing north and south intersections with Woodland Avenue.

This build alternative would provide a standard four-way intersection at Newell Road and Woodland Avenue, improving sight lines for vehicles, pedestrians, and bicyclists at the intersection.

The new bridge would be approximately 4 feet higher than the existing roadway profile at the bridge to improve flood hazard protection for the adjacent communities. Newell Road roadway would be raised 4 feet on the Palo Alto side in order to meet the higher profile of the new bridge. Retaining walls (approximately 110 linear feet long by 12 inches wide, varying between 1 foot and 4.5 feet in height) would be constructed on both sides of the roadway to limit the ROW needs for the Project.

On the East Palo Alto side of the bridge, Woodland Avenue and Newell Road intersection would be raised 4.4 feet to meet the new bridge profile and would require approximately 325 feet to conform to the existing roadway on the east and west sides of the bridge. Newell Road would also require approximately 125 feet of improvements, including reconstruction of sidewalks and readjustments of an existing driveway and walkways. Retaining walls (approximately a total of 490 linear feet long by 12 inches wide, varying between 1 foot and 4.2 feet in height) would be required on the north and

south side of Woodland Avenue and both sides of Newell Road to limit the ROW needs for the Project.

Bridge Aesthetics

The design consultant has retained a bridge architect as a member of the design team. The elevated bridge profile will be visible from the westbound direction of Woodland Avenue. The roadway profile requires the use of a prominent vertical curve resulting in an arch-like bridge vertical alignment. The resulting aesthetic enhancement will add to the visual quality of the new bridge. The use of a modified Caltrans Type 80SW bridge railing is recommended as an additional aesthetic enhancement. The Type 80SW barrier provides vehicular and pedestrian safety as well as 5-foot-long by 11-inch-high openings spaced at 6'-4" intervals above the sidewalk curb, approximately 1.5 to 2.5 feet above the road surface, to provide the driver with an open feel to the bridge. The openings will be filled with impact-resistant glazing to preserve the full height of the opening for viewing, while providing the 4-foot freeboard above the expected 1% water elevation required by the Federal Emergency Management Agency. Fluted lighting standards similar to those used in the older sections of Palo Alto are also proposed along both sides of the bridge.

The Newell Road Bridge Replacement Project is subject to the City's Art in Public Places policy, and staff will be coordinating with the Public Art Commission to retain an artist to work cooperatively with the bridge architect to incorporate art into the project. A budget of $10,000 has been incorporated into the capital improvement project (1% of the estimated cost of the new bridge structure) for the public art element. Further considerations of aesthetic features will be undertaken after the preferred bridge type is selected and an artist is brought on board by the Public Art Commission. The project team will be meeting with the Public Art Commission to present the project on April 16, 2019. Additional aesthetic features may include further refinement of the bridge layout, evaluation of concrete colors, textures and finishes, as identified by the Public Art Commission.

Public Outreach

The first community meeting was held on June 27, 2012 in East Palo Alto. The purpose of the meeting was to present preliminary bridge replacement alternatives which included existing alignment and fully aligned bridge with Newell Road.

The architectural review board hearing was held at the City council chambers on November 1, 2012. Residents voiced their concern on the two alternatives provided and wanted to see more viable options for the bridge design project.

The second community meeting was held on January 8, 2013 at which the City made a commitment to formally evaluate a reasonable range of alternatives through a formal environmental impact report (EIR) to assess a full range of bridge project alternatives and the potential impact of each of these alternatives. At this meeting, the City presented five potential alternatives that could be considered as part of the environmental analysis. These alternatives included:

1. Removal of the existing bridge without replacement;
2. Replacement of the existing bridge with a bicycle/pedestrian bridge;
3. Replacement of the existing bridge with a bridge on the existing alignment;

4. Replacement of the existing bridge with a bridge with a partial realignment;
5. Replacement of the existing bridge with a bridge aligned with Newell Road in East Palo Alto.

On October 17, 2013, the City hosted another community meeting to further discuss the design alternatives to be reviewed and to identify screening criteria that these alternatives would be compared against. At this meeting, eight alternatives were presented for the public's consideration.

On February 27, 2014, community meeting was held to present the eight feasible alternatives and screening criteria to identify feasible alternatives to be analyzed in the project EIR. feasible alternatives following this meeting, the City prepared a formal Alternatives Screening Analysis report and presented it to the community on February 27, 2014. The eight alternatives in this screening analysis included that were presented to the public were:

1. No Build (keep existing bridge);
2. Remove Existing Bridge;
3. Bicycle/Pedestrian Bridge;
4. Bicycle/Pedestrian Bridge with Emergency Vehicle Access;
5. One-Lane Bridge with Bi-directional traffic;
6. Two-lane Bridge with on Existing Alignment;
7. Two-lane Bridge with Partial Realignment of Newell Road;
8. Two-lane Bridge with Full Realignment of Newell Road.

The screening process was then used to narrow the initial eight project alternatives to those that best met the project objectives in order to fully analyze those alternatives in the environmental analysis.

Therefore, the five alternatives carried forward for full analysis in the EIR/EA are as follows:

- Alternative 1: A one lane bridge with two (2) way traffic (under signal control) on the existing alignment.
- Alternative 2: A two lane bridge on the existing alignment.
- Alternative 3: A two lane bridge on a partial realignment of Newell Road.
- Alternative 4: A two lane bridge on a full realignment of Newell Road.
- Alternative 5: No Build/No Action Alternative (As required in accordance with CEQA and NEPA)

The City held an additional public meeting on June 25, 2015 to obtain initial input from the Crescent Park Neighborhood Association (CPNA).

The City formally began the EIR process in August 2015 by filing the Notice of Preparation of a Draft EIR/EA in accordance with CEQA and NEPA. The City held a scoping meeting on September 3, 2015. Verbal and written comments were collected from the meeting attendees and will be summarized in the Draft EIR/EA.

Information about the project is available on the project web site at www.cityofpaloalto.org/newell.

Project Schedule

Construction of Newell Road Bridge Replacement Project is expected to begin in Fall of 2020 and be completed by fiscal year 2022.

Attachments

1 – Alternative 1 View 1 Simulated Conditions
2 – Alternative 1 View 2 Simulated Conditions
3 – Alternative 2 View 1 Simulated Condition
4 – Alternative 2 View 2 Simulated Conditions
5 – Alternative 3 View 1 Simulated Condition
6 – Alternative 3 View 2 Simulated Conditions
7 – Alternative 4 View 1 Simulated Condition
8 – Alternative 4 View 2 Simulated Conditions

Figure 1. Existing View and Alternative 1 Simulated Conditions – Newell Road in Palo Alto Looking towards East Palo Alto

Figure 2. Existing View and Alternative 1 Simulated Conditions—from Newell Road in East Palo Alto looking toward Palo Alto.

Figure 3. Existing View and Alternative 2 Simulated Conditions—from Newell Road in Palo Alto looking toward East Palo Alto.

Figure 4. Existing View and Alternative 2 Simulated Conditions—from Newell Road in East Palo Alto looking toward Palo Alto.

Figure 5. Existing View and Alternative 3 Simulated Conditions—from Newell Road in Palo Alto looking toward East Palo Alto.

Figure 6. Existing View and Alternative 3 Simulated Conditions—from Newell Road in East Palo Alto looking toward Palo Alto.

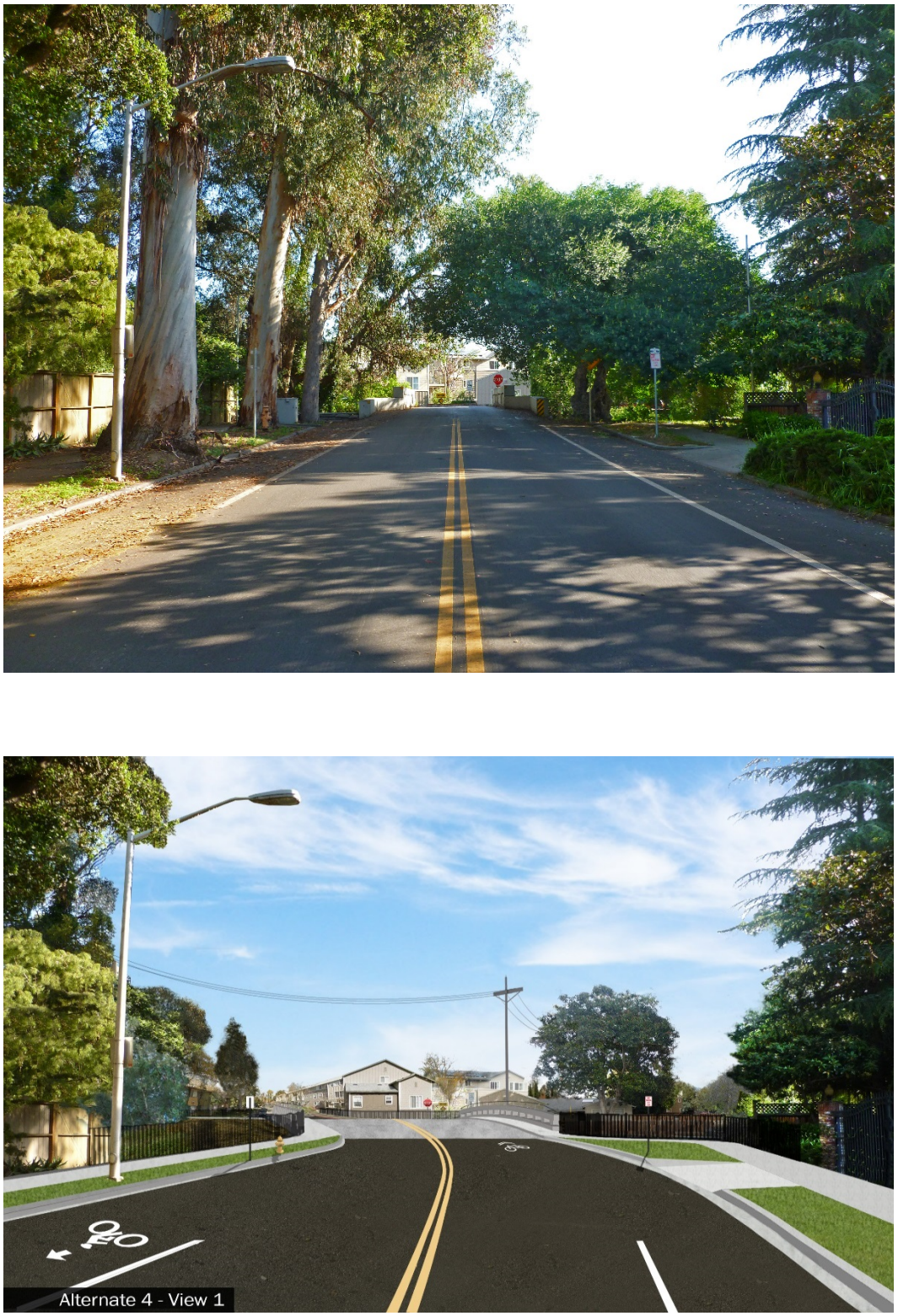


Figure 7. Existing View and Alternative 4 Simulated Conditions—from Newell Road in Palo Alto looking toward East Palo Alto.

Figure 8. Existing View and Alternative 4 Simulated Conditions—from Newell Road in East Palo Alto looking toward Palo Alto.

Revised Final

Supplemental Traffic Evaluation Report

City of Palo Alto

January 29, 2019

CITY OF PALO ALTO

TJKM

Table of Contents

Tables

Figures

Appendices

EXECUTIVE SUMMARY

This report contains the results of the supplemental traffic study conducted by TJKM for the *Traffic Evaluation of Newell Road Bridge Project in the City of Palo Alto, February 2014* also conducted by TJKM.

Based on the discussions with the City Staff, five different project alternatives and seven study intersections as compared to the eight alternatives and 14 study intersections, respectively identified in the previous February 2014 study, were analyzed for the a.m. and p.m. peak periods, and compared to the results of the previous study.

The five project alternatives identified are listed below:

1. No Project (Leave Existing Bridge in Place)
2. One Lane Bi-Directional Bridge Option with Signal Control
3. Two-Lane Vehicle Bridge Option with Partial Realignment for Newell Road
4. Two-Lane Vehicle Bridge Option with Full Realignment of Newell Road
5. New Two-Lane Vehicle Bridge Option on Existing Alignment of Newell Road

The selected study intersections are listed below:

1. Newell Road/Edgewood Drive
2. Newell Road/Channing Avenue
3. Newell Road/Woodland Avenue (East Palo Alto)
4. University Avenue/Woodland Avenue (East Palo Alto)
5. University Avenue/East Crescent Drive
6. Saint Francis Drive/Embarcadero Road
7. West Bayshore Road/Newell Road

The five alternatives listed above were analyzed based on the Level of Service (LOS) and delay experienced at the study intersections and the Traffic Infusion on Residential Environment (TIRE) index at the selected study corridors.

Level of Service (LOS) Methodology:

The LOS impacts at the selected study intersections were analyzed for the proposed bridge configurations under the three scenarios listed below:

- Existing Conditions (Year 2016)
- Project Complete/Open to Traffic Conditions (Year 2020)
- Cumulative Conditions (Year 2040)

The proposed bridge configuration alternatives are discussed below, along with the LOS analyzes results.

Alternative 1: No Project (Leave Existing Bridge in Place)

Under this alternative, the existing 18-foot wide bridge would be left in place as is. Under Existing Conditions (Year 2016), all study intersections operate at LOS D or better, with the exception of University Avenue/East Crescent Drive which operates at LOS E during the a.m. peak hour.

Under the Project Complete/Open to Traffic Conditions (Year 2020), all study intersections operate at LOS D or better, with the exception of University Avenue/East Crescent Drive, which operates at LOS F and LOS E during the a.m. and p.m. peak hours respectively.

Under the Cumulative Conditions (Year 2040), all study intersections operate at LOS D or better, with the exceptions of University Avenue/Woodland Avenue and University Avenue/East Crescent Drive, which operate at LOS E or worse during both the a.m. and p.m. peak hours.

Alternative 2: One Lane Bi-Directional Bridge Option with Signal Control

The operational analysis for this alternative relies primarily on the signal control and timing at the intersections of Newell Road/Woodland Avenue and Newell Road/Edgewood Road. It is assumed that only one direction of traffic would be able to cross the bridge at any one time. Under Existing Conditions (Year 2016), all study intersections operate at LOS D or better, with the exception of University Avenue/East Crescent Drive, which operates at LOS E during the a.m. peak hour.

Under the Project Complete/Open to Traffic Conditions (Year 2020), all study intersections operate at LOS D or better, with the exception of University Avenue/East Crescent Drive, which operates at LOS F and LOS E during the a.m. and p.m. peak hours respectively.

Under the Cumulative Conditions (Year 2040), all study intersections operate at LOS D or better, with the exceptions of University Avenue/Woodland Avenue and University Avenue/East Crescent Drive, which operate at LOS E or worse during both the a.m. and p.m. peak hours.

Alternative 3: Two-Lane Vehicle Bridge Option with Partial Realignment of Newell Road

The proposed configuration would reduce the distance of the current north-south offset of Newell Road by 30 feet. The partial realignment would result in the offset intersection being approximately 60 feet apart. The bridge would be widened to accommodate autos, pedestrians, and bicyclists (sharrows) in both directions of travel. Under Existing Conditions (Year 2016), all study intersections operate at LOS D or better, with the exception of University Avenue/East Crescent Drive, which operates at LOS E during the a.m. peak hour.

Under the Project Complete/Open to Traffic Conditions (Year 2020), all study intersections operate at LOS D or better, with the exception of University Avenue/East Crescent Drive, which operates at LOS F during the a.m. peak hour.

Under the Cumulative Conditions (Year 2040), all study intersections operate at LOS D or better, with the exceptions of University Avenue/Woodland Avenue and University Avenue/East Crescent Drive, which operate at LOS E or worse during both the a.m. and p.m. peak hours.

Alternative 4: Two-Lane Vehicle Bridge Option with Full Realignment of Newell Road

This alternative assumes the full realignment of Newell Road Bridge and addition of sharrows in both directions of travel. The full realignment involves combining the staggered Newell Road/Woodland Avenue intersection, analyzed in No Project Alternatives, as two separate all-way-stop-controlled intersections to a single four-legged intersection with no offset. The bridge would be widened to accommodate autos, pedestrians, and bicyclists (sharrows) in both directions of travel.

Under Existing Conditions (Year 2016), all study intersections operate at LOS D or better, with the exception of University Avenue/East Crescent Drive, which operates at LOS E during the a.m. peak hour.

Under the Project Complete/Open to Traffic Conditions (Year 2020), all study intersections operate at LOS D or better, with the exception of University Avenue/East Crescent Drive, which operates at LOS F during the a.m. peak hour.

Under the Cumulative Conditions (Year 2040), all study intersections operate at LOS D or better, with the exceptions of University Avenue/Woodland Avenue and University Avenue/East Crescent Drive, which operate at LOS E or worse during both the a.m. and p.m. peak hours.

Alternative 5: New Two-Lane Vehicle Bridge Option on Existing Alignment of Newell Road

This alternative assumes keeping the bridge in its current location but widening it to accommodate autos, pedestrians, and bicyclists (sharrows) in both directions of travel.

Under Existing Conditions (Year 2016), all study intersections operate at LOS D or better, with the exception of University Avenue/East Crescent Drive, which operates at LOS E during the a.m. peak hour.

Under the Project Complete/Open to Traffic Conditions (Year 2020), all study intersections operate at LOS D or better, with the exception of University Avenue/East Crescent Drive, which operates at LOS F during the a.m. peak hour.

Under the Cumulative Conditions (Year 2040), all study intersections operate at LOS D or better, with the exceptions of University Avenue/Woodland Avenue and University Avenue/East Crescent Drive, which operate at LOS E or worse during both the a.m. and p.m. peak hours.

Traffic Infusion on Residential Environment (TIRE)

TIRE analysis of adjacent residential streets was conducted to evaluate and identify potential increases in vehicle volumes due to the proposed bridge configurations. Listed below are the TIRE study corridors.

1. Edgewood Drive, from Newell Road to Island
2. Edgewood Drive, from Newell Road to Jefferson Drive
3. Newell Road, from Edgewood Drive to Hamilton Avenue
4. Woodland Avenue, from Cooley Avenue to Newell Road
5. Newell Road, from Woodland Avenue to West Bayshore Road (EPA)
6. Woodland Avenue, from Newell Road to Clarke Avenue

The results indicated that reconfiguration of the Newell Road Bridge would not impact the residential homes in the neighborhood, as the deviation of traffic on the bridge would not be significant for the residences to notice the change nor affect the livability and environment of the study segments.

Conclusion

Evaluation of the five discussed alternatives under Existing Conditions (Year 2016), Project Complete/Open to Traffic Conditions (Year 2020), and Cumulative Conditions (Year 2040) show that there is no significant difference in LOS and delay between the alternatives, with the exception of Alternative 2. Alternative 2 results in a higher delay at Newell Road/Woodland Avenue (North Leg) for all scenarios, as compared to alternatives 3, 4, and 5. All alternatives, however, operate within the City of Palo Alto's thresholds of significant traffic impact.

The TIRE Index analysis for Existing Conditions (Year 2016), Project Completion (2020), and Cumulative Conditions (2040) indicates that reconfiguration of the Newell Road Bridge would not impact the residential homes in the neighborhood, as the deviation of traffic on the bridge would not be significant for the residences to notice the change nor affect the livability and environment of the study segments.

INTRODUCTION

The City of Palo Alto, in partnership with the City of East Palo Alto and the San Francisquito Creek Joint Powers Authority (JPA), is evaluating options for the replacement of the Newell Road Bridge over San Francisquito Creek, located at the eastern end of Newell Road in Palo Alto, and at Woodland Avenue in the City of East Palo Alto. The existing Bridge, built in 1911, impedes the creek channel and requires replacement to accommodate a 1% (100-year) flood event. Improvements to the Bridge will protect adjacent homes from flooding if there is a large storm event.

This report contains the results of the supplemental traffic study conducted by TJKM for the *Traffic Evaluation of Newell Road Bridge Project in the City of Palo Alto, February 2014,* also conducted by TJKM.

Based on discussions with City Staff, five different project alternatives and seven study intersections, as compared to the eight alternatives and 14 study intersections respectively identified in the previous February 2014 study, will be analyzed for the a.m. and p.m. peak periods, and compared to the results of the previous study.

This chapter discusses the project study area, analysis scenarios and methods, and criteria used to identify significant impacts.

STUDY INTERSECTIONS AND SCENARIOS

TJKM evaluated traffic conditions at seven study intersections during the a.m. and p.m. peak hours for a typical weekday. The study intersections were selected in consultation with the City staff. The peak periods observed were between 7:00 a.m.-9:00 a.m. and 4:00 p.m.-6:00 p.m. The study intersections and associated traffic controls are as follows:

- Newell Road/Edgewood Drive (Unsignalized)
- Newell Road/Channing Avenue (Signalized)
- Newell Road/Woodland Avenue (Unsignalized)
- University Avenue/Woodland Avenue (Signalized)
- University Avenue/E Crescent Drive (Unsignalized)
- Saint Francis Drive/Embarcadero Road (Signalized)
- West Bayshore Road/Newell Road (Unsignalized)

Figure 1 illustrates the study intersections and the vicinity map of the project.

The five project alternatives identified are listed below:

- No Project (Leave Existing Bridge in Place)
- One Lane Bi-Directional Bridge Option with Signal Control
- Two-Lane Vehicle Bridge Option with Partial Realignment for Newell Road
- Two-Lane Vehicle Bridge Option with Full Realignment of Newell Road
- New Two-Lane Vehicle Bridge Option on Existing Alignment of Newell Road

The five project alternatives were analyzed for each of the study scenarios listed below.

- **Existing Conditions (Year 2016)** – This scenario evaluates all the study intersections based on existing traffic volumes, lane geometry, and traffic controls. In addition, the background trips generated by the Car Dealership Project on 1700 Embarcadero Road will be added to the Saint Francis Drive/Embarcadero Road intersection for alternatives 3, 4, and 5. Additionally, the rerouting of vehicles through the study area was conducted to show a 3%, 5%, and 2% increase in traffic through Newell Road Bridge for alternatives 3, 4, and 5 respectively based on the *East Palo Alto General Plan Update*, dated April 2016.
- **Project Complete/Open to Traffic Conditions (Year 2020)** – This scenario evaluates LOS using newly collected data, and applying a growth rate of 1% per year. This is based on the *East Palo Alto General Plan Update*, dated April 2016, and existing and projected 2040 information provided by the City of Palo Alto for the University Avenue/Woodland intersection. In addition, the background trips generated by the Car Dealership Project on 1700 Embarcadero Road will be added to Saint Francis Drive/Embarcadero Road intersection for alternatives 3, 4 and 5. Additionally, rerouting of the vehicles through the study area was conducted to show a 3%, 5% and 2% increase in traffic through Newell Road Bridge for alternatives 3, 4 and 5 respectively based on the *East Palo Alto General Plan Update*, dated April 2016.
- **Cumulative Conditions (Year 2040)** – This scenario evaluates LOS using newly collected data and applying a growth rate of 1% per year. This is based on the *East Palo Alto General Plan Update*, dated April 2016, and as per the direction and approval of City of Palo Alto staff to obtain the forecasted demands for the Cumulative Conditions (Year 2040). In addition, the background trips generated by the Car Dealership Project on 1700 Embarcadero Road will be added to Saint Francis Drive/Embarcadero Road intersection for alternatives 3, 4, and 5. Additionally, rerouting of the vehicles through the study area was conducted to show a 3%, 5%, and 2% increase in traffic through Newell Road Bridge for alternatives 3, 4, and 5 respectively based on the *East Palo Alto General Plan Update*, dated April 2016.

ANNUAL GROWTH RATE PROJECTIONS

An annual growth rate of 1% was applied, as aforementioned, for the Project Complete/Open to Traffic Conditions (Year 2020) and Cumulative Conditions (Year 2040) scenarios. This is based on the *East Palo Alto General Plan Update*, dated April 2016, and existing and projected 2040 information provided by the City of Palo Alto for the University Avenue/Woodland intersection. Table 4.12-2 – ABAG Growth Projections 2040 for population and housing units, and Table 5.1 – Growth Projections for East Palo Alto and San Mateo County for population, employment, and housing units, were referenced from the East Palo Alto General Plan Update to derive the annual growth rate.

As per Table 4.12-2 – ABAG Growth Projections 2040, there is a projected increase in growth by 26%, and 11% for population and housing units respectively from Year 2010 to Year 2040, which results in an annual growth rate of 0.62%. Similarly, as per Table 5.1 – Growth Projections for East Palo Alto and San Mateo County, there is a projected increase in growth by 26%, 38%, and 20% for population, employment, and housing units respectively from Year 2010 to Year 2040, which results in an annual growth rate of 0.93%. Based on these projections, a conservative 1% growth rate was applied to the study.

Vicinity Map

LEGEND

X Study Intersection

042-051

Figure 1

PROPOSED BRIDGE CONFIGURATIONS

Alternative 1: No Project (Leave Existing Bridge in Place)

Under this alternative, the existing 18-foot wide bridge would be left in place as is and there would be no realignment of the bridge. This alternative is evaluated for Existing Conditions (Year 2016), Project Complete/Open to Traffic Conditions (Year 2020), and Cumulative Conditions (Year 2040) using Traffix Software. **Figures 2** and **3** provide images of Newell Road Bridge, going southbound towards Edgewood Drive and northbound towards Woodland Drive.

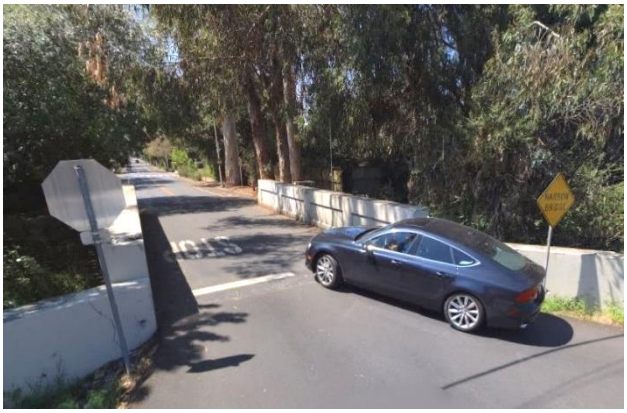


Figure 2: Newell Road Bridge (towards Edgewood Drive)

Figure 3: Newell Road Bridge (towards Woodland Avenue)

Alternative 2: One Lane Bi-Directional Bridge Option with Signal Control

The operational analysis for this alternative relies primarily on the signal control and timing at the intersections of Newell Road/Woodland Avenue and Newell Road/Edgewood Road. This scenario is evaluated for Existing Conditions (Year 2016), Project Complete/Open to Traffic Conditions (Year 2020), and Cumulative Conditions (Year 2040) using Synchro 8 Modeling Software for the two intersections to be signalized, Newell Road/Woodland Avenue and Newell Road/Edgewood Drive. Traffix was used for the rest of the intersections. Intersection traffic volumes are the same as with alternative 1. The analysis was conducted by assuming that both of the intersections would be signalized to reflect the proposed One Lane Bi-Directional Vehicle Bridge option. It is assumed that only one direction of traffic would be able to cross the bridge at any one time. As illustrated in **Figure 4**, the eastbound left and westbound right directional traffic traversing northbound towards Woodland Avenue from Edgewood Drive will be able to clear the Newell Road Bridge and cross Woodland Avenue during their green phase. No other vehicular movement will be allowed. After, the northbound movement has been served, other movements will be served similarly. The aim is to ensure no vehicle is left behind on the bridge during its phase. The single family home on the east side and just south of the bridge would have its own directional signal to indicate direction of travel at all times.

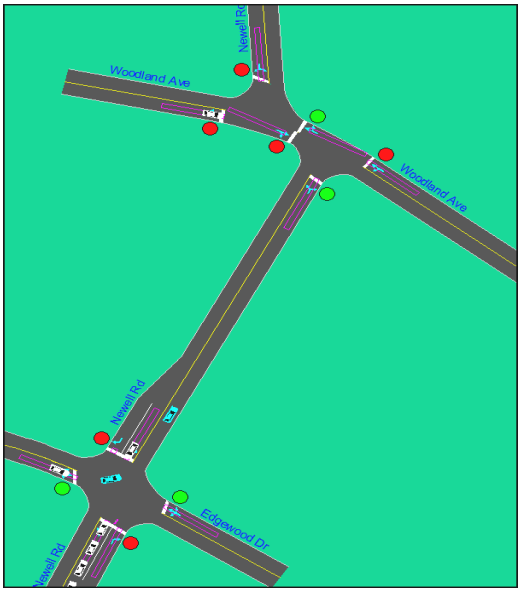


Figure 4: Synchro Model Figure for One Lane Bi-Directional Bridge with

Alternative 3: Two-Lane Vehicle Bridge Option with Partial Realignment of Newell Road

This proposed configuration would reduce the distance of the current north-south offset of Newell Road by 30 feet. The partial realignment would result in the offset intersection being approximately 60 feet apart. The bridge would be widened from 9 feet in each lane to 14 feet, along with the addition of sidewalks to accommodate autos, pedestrians, and bicyclists (sharrows) in both directions of travel. **Figure 5** provides the conceptual plan for the partial realignment of the Newell Road Bridge alternative. In the previous study conducted by TJKM in the *Traffic Evaluation of Newell Road Bridge Project in the City of Palo Alto, February 2014*, the increase in traffic through the bridge versus the routes currently used was assumed to be 6%. This study assumed an increase in traffic by 3% based on the *East Palo Alto General Plan Update*, dated April 2016. This alternative is evaluated for Existing Conditions (Year 2016), Project Complete/Open to Traffic Conditions (Year 2020), and Cumulative Conditions (Year 2040) using Traffix Software. **Appendix A** contains the complete *Traffic Evaluation of Newell Road Bridge Project in the City of Palo Alto, February 2014* Report.

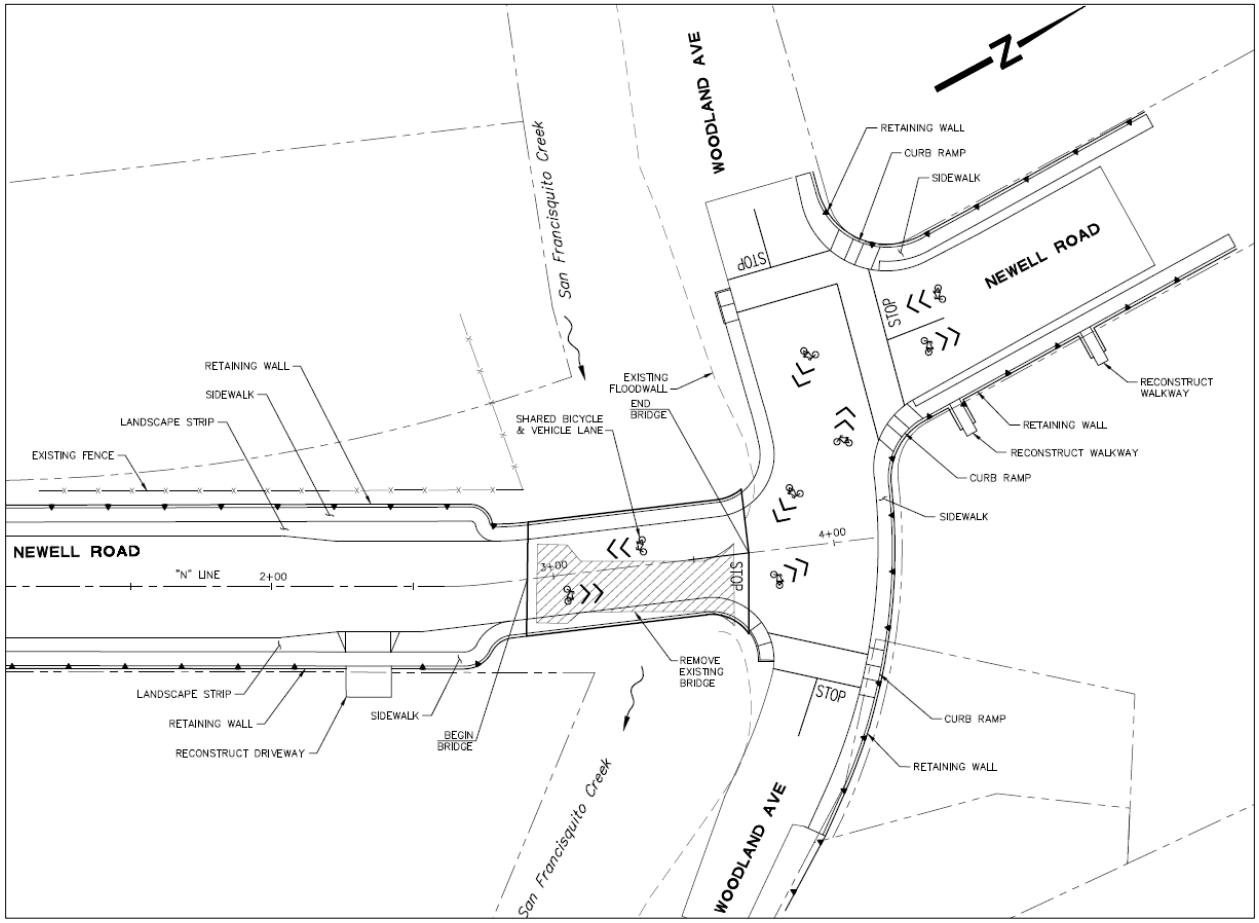


Figure 5: Two-Lane Vehicle Bridge Option with Partial Realignment of Newell Road

Alternative 4: Two-Lane Vehicle Bridge Option with Full Realignment of Newell Road

This proposed configuration assumes the full realignment of Newell Road Bridge, the addition of sharrows in both directions of travel, and widening the bridge from 9 feet in each lane to 14 feet. The full realignment involves combining the staggered Newell Road/Woodland Avenue intersection, analyzed in No Project Alternatives, as two separate all-way-stop-controlled intersections to a single four-legged intersection with no offset. The bridge would be widened to accommodate autos, pedestrians, and bicyclists (sharrows) in both directions of travel. The proposed realignment of the intersection would totally remove the slight intersection visibility issue with the currently offset intersections. **Figure 6** provides the conceptual plan for the full realignment of the Newell Road Bridge alternative.

In the previous study conducted by TJKM in the *Traffic Evaluation of Newell Road Bridge Project in the City of Palo Alto, February 2014*, the increase in traffic through the bridge versus the routes currently used was assumed to be 10%. This study assumed an increase in traffic by 5% based on the *East Palo Alto General Plan Update*, dated April 2016. This alternative is evaluated for Existing Conditions (Year 2016), Project Complete/Open to Traffic Conditions (Year 2020), and Cumulative Conditions (Year 2040) using Traffix Software. **Appendix A** contains the complete *Traffic Evaluation of Newell Road Bridge Project in the City of Palo Alto, February 2014* Report.

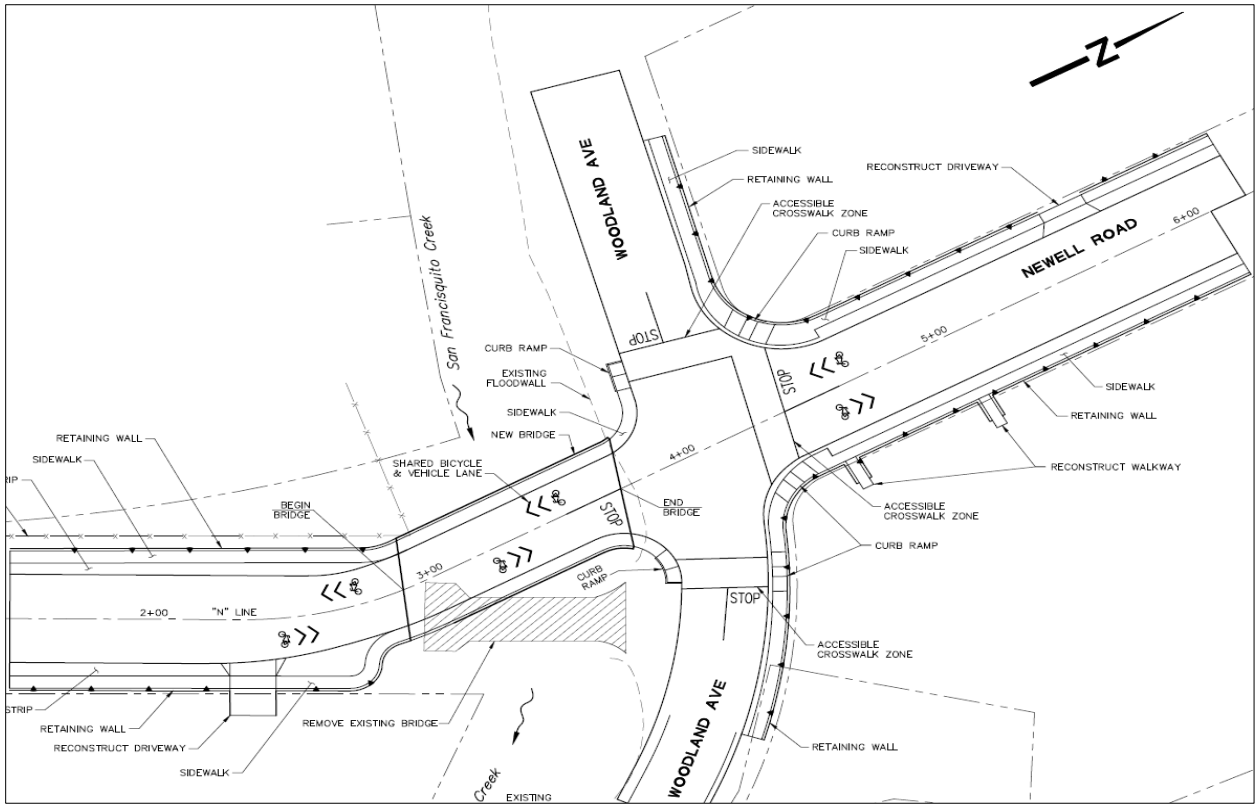


Figure 6: Two-Lane Vehicle Bridge Option with Full Realignment of Newell Road

Potential Concerns with the Full Realignment Alternative

One of the potential concerns with a realigned intersection is loss of apparent traffic calming effect of the existing offset intersection. This might potentially be a concern with signal control but may not be a concern with an all-way-stop-controlled intersection. There are two ways to slow down drivers: physical deterrents or psychological reminders. With a radar feedback sign, drivers have two options: slow down or keep going. On the other hand, when approaching a speed hump, speed cushion, or speed table, there is only one choice; drivers must slow down. The following two traffic-calming treatments on the Newell Road Bridge, in advance of the intersection at Woodland Avenue, could be considered: a speed cushion or a raised crosswalk. Additionally, a roundabout at this intersection and/or median chokers would greatly facilitate traffic calming effect.

TJKM recommends installing a raised crosswalk on each approach of Newell Road at the Woodland Avenue/Newell Road intersection. The raised crosswalk would act as a deterrent to speeding and make the proposed realigned intersection alternative less attractive as a regional traffic route. **Figures 7** and **8** provide an example of a speed cushion and raised crosswalk.

Figure 7: Speed Cushion

Figure 8: Raised Crosswalk

Alternative 5: New Two-Lane Vehicle Bridge Option on Existing Alignment of Newell Road

The proposed configuration would remove the existing bridge and construct a new two-lane bridge on the existing alignment. The new bridge would be widened to accommodate autos, pedestrians, and bicyclists (sharrows) in both directions of travel. The new bridge would be built higher than the existing profile over the creek in order to accommodate the 100-year storm flow. The limited sight distance presented by the offset alignment will continue to exist. With the new bridge, the lane width of the bridge would be widened from 9 feet in each lane to 12 feet. **Figure 9** provides the conceptual plan for the new bridge with existing alignment of the Newell Road Bridge alternative.

In the previous study conducted by TJKM in the *Traffic Evaluation of Newell Road Bridge Project in the City of Palo Alto, February 2014*, the increase in traffic through the bridge versus the routes currently used was assumed to be 4%. This study assumed an increase in traffic by 2% based on the *East Palo Alto General Plan Update*, dated April 2016. This alternative is evaluated for Existing Conditions (Year 2016), Project Complete/Open to Traffic Conditions (Year 2020), and Cumulative Conditions (Year 2040) using Traffix Software. **Appendix A** contains the complete *Traffic Evaluation of Newell Road Bridge Project in the City of Palo Alto, February 2014* Report.

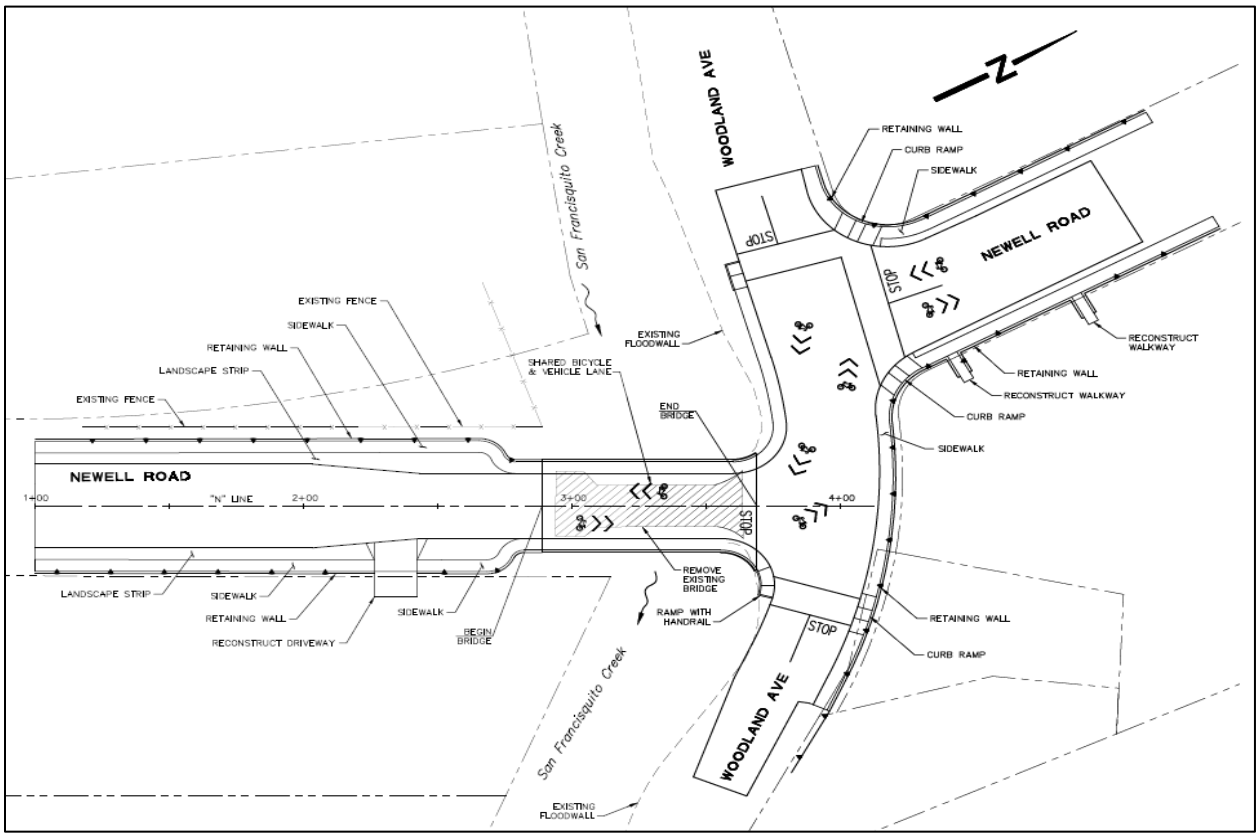


Figure 9: New Two-Lane Vehicle Bridge Option on Existing Alignment of Newell Road

STUDY METHODOLOGY

LEVEL OF SERVICE (LOS) ANALYSIS METHODOLOGY

LOS is a standard measure of traffic service along a roadway or at an intersection. It ranges from A to F, with LOS A being best and LOS F being worst. In very general terms, LOS A, B, and C indicate conditions where traffic can move relatively freely. LOS D describes conditions where delay is more noticeable and average travel speeds are more unstable. LOS E indicates significant delays and average travel speeds vary greatly and are unpredictable; traffic volumes are generally at, or close to, capacity. Finally, LOS F characterizes traffic flow at very slow speeds (stop-and-go) and significant delays with queuing at unsignalized intersections, which typically means traffic demand on the roadway exceeds the roadway's capacity.

The *Highway Capacity Manual (HCM), 2000 Edition* is the standard reference published by the Transportation Research Board, and contains the specific criteria and methods to be used in assessing LOS. There are several software packages that have been developed to implement HCM. In this study, Traffix Software was used to calculate the LOS at the study intersections for alternatives 1, 2, 3, 4, and 5. Synchro 8 was used to calculate the LOS for alternative 2 for two intersections for all study scenarios. A detailed description of the methodology is provided in **Appendix B**.

Signalized intersection LOS is based on the capacity of the intersection as a whole, and average delay experienced by a driver. Unsignalized intersection LOS is defined by the average delay experienced by a driver for the minor approach worst movement or major approach critical movement. **Table 1** provides the relationship between LOS rating and delay for signalized and unsignalized intersections.

Table 1: Level of Service Thresholds Based on Intersection Delay

Level of Service	*Signalized Intersection Delay (sec)*	*Unsignalized Intersection Delay (sec)*
A	0 ≤ D ≤ 10	0 ≤ D ≤ 10
B	10 < D ≤ 20	10 < D ≤ 15
C	20 < D ≤ 35	15 < D ≤ 25
D	35 < D ≤ 55	25 < D ≤ 35
E	55 < D ≤ 80	35 < D ≤ 50
F	80 < D	50 < D

Source: Highway Capacity Manual (HCM), 2000 Edition

Standards of Significance

The acceptable LOS in the City of Palo Alto is to maintain a "D" or better for non-Congestion Management Program (CMP) Agency intersections and LOS E for CMP intersections. Based on the City of East Palo Alto 1999 General Plan, the acceptable LOS is also LOS D.

For facilities with an LOS E or LOS F under existing, background, or cumulative conditions before the addition of project traffic, a project is said to have a significant impact per CEQA Guidelines Section 15130 if the TIA shows that the project will cause LOS to deteriorate by the following amounts:

- Addition of the project increases the average control delay for critical movements by four (4) seconds or more, or
- Project traffic increases the Critical V/C (Volume/Capacity) value by 0.01 or more

TRAFFIC INFUSION ON RESIDENTIAL ENVIRONMENT

Residential areas tend to be especially sensitive to traffic because relatively small increases in traffic can impact the livability of the neighborhood. TIRE is the measure of traffic impact on residents along a roadway. The TIRE Index is derived from a theory by D.K. Goodrich, based on work by Professor Appleyard of the University of California at Berkeley, and by Buchanan of the Ministry of Transport, England. TIRE is based on the hypothesis that a given increase in traffic volume has a greater impact on the residential environment along a roadway with a low traffic volume, than along a roadway with a high pre-existing volume. TIRE represents the effect of traffic on the safety and comfort of human activities, such as walking, bicycling, and playing on or near a roadway, and on the freedom to maneuver personal autos in and out of residential driveways.

The TIRE index is based on daily traffic conditions and uses average daily traffic (ADT) volumes to determine the amount of daily traffic that could be added to a roadway before residents would perceive the increase in traffic. The amount of daily traffic that can be added before residents would notice directly correlates to the amount of daily traffic already present on the roadway. The TIRE Index scale ranges from zero to five, depending on daily traffic volume. An index of zero represents the least infusion of traffic. An index of five represents the greatest traffic volume, and thereby the poorest residential environment. A roadway with a TIRE value of three or greater is considered to exhibit a significantly impaired residential environment. The projected difference between a pre and post-project TIRE value is the predicted impact of the project on a residential environment. Any projected change of 0.1 or greater would be noticeable to residents. An increase in index of 0.10 corresponds to an approximate increase in ADT of between 20% and 30%. **Appendix B** contains a detailed description of the TIRE index methodology. **Table 2** provides the TIRE Index thresholds for different ADT ranges.

Table 2: TIRE Index Thresholds based on ADT

Existing Volume Range (Vehicles Per Day)	*TIRE Index*	*Minimum Daily Traffic Volume Increase to Produce*	
		a 0.1 Change in the TIRE Index	*a 0.2 Change in the TIRE Index*
29-35	1.5	+6	+15
36-44	1.6	+8	+20
45-56	1.7	+10	+25
57-70	1.8	+13	+32
71-89	1.9	+17	+41
90-110	2.0	+22	+52
111-140	2.1	+29	+65
141-180	2.2	+40	+80
181-220	2.3	+52	+100
221-280	2.4	+65	+125
281-350	2.5	+79	+160
351-450	2.6	+97	+205
451-560	2.7	+114	+260
561-710	2.8	+140	+330
711-890	2.9	+170	+415
891-1,100	3.0	+220	+520
1,101-1,400	3.1	+290	+650
1,401-1,800	3.2	+380	+800
1,801-2,200	3.3	+500	+1,000
2,201-2,800	3.4	+650	+1,300
2,801-3,500	3.5	+825	+1,700
3,501-4,500	3.6	+1,025	+2,200
4,501-5,600	3.7	+1,250	+2,800
5,601-7,100	3.8	+1,500	+3,500
7,101-8,900	3.9	+1,800	+4,300
8,901-11,000	4.0	+2,300	+5,300
11,001-14,000	4.1	+3,000	+6,500
14,001-18,000	4.2	+4,000	+8,000
18,001-22,00	4.3	+5,200	+10,000
22,001-28,000	4.4	+6,600	+13,000
28,001-35,000	4.5	+8,200	+17,000
35,000-45,000	4.6	+10,000	+22,000
45,001-56,000	4.7	+12,200	+28,000
56,001-71,000	4.8	+14,800	+35,000
71,001-89,000	4.9	+18,00	+43,000

Source: Goodrich Traffic Group, based on curve shapes found in work by Donald Appleyard at the University of California, Berkeley and in consideration of earlier thoughts by Buchanan of the Ministry of Transport, England.

EXISTING CONDITIONS

The existing Newell Road Bridge is a narrow 18-foot, two-lane bridge that connects Palo Alto and East Palo Alto. The land use south of the Newell Road Bridge, towards Palo Alto, is primarily single-family residential homes. North of the Newell Road Bridge, towards East Palo Alto, contains a mix of single-family and multi-family residential homes, and some non-residential land uses.

EXISTING SETTING AND ROADWAY SYSTEM

Key roadways in the project vicinity are described below:

Newell Road is a two-lane collector street that connects from Channing Avenue in the south to West Bayshore Road to the north. Across the bridge, at Woodland Avenue, the intersection is currently offset into two intersections forming two, stop-controlled T-intersections at Woodland Avenue. The existing ADT is approximately 3,450 vehicles per day (vpd) on the segment between Edgewood Drive and Hamilton Avenue.

Woodland Avenue is a two-lane collector street in East Palo Alto near Newell Road. The existing ADT is approximately 4,150 vpd to the west of Newell Road.

Edgewood Drive is a two-lane local residential street with roll curbs and sidewalks. The ADT is approximately 600 vpd.

West Bayshore Road is generally a wide, two-lane frontage road on the west side of US 101. Some non-residential land uses face the roadway. It serves many residential land uses in the area.

Channing Avenue is a two-lane, east-west collector street with a Class II bike lane and is located to the south of Newell Road.

Hamilton Avenue is a long, east-west street that runs from Newell Road to Downtown Palo Alto. It is a two-lane residential street within the project area.

Figure 1 illustrates the existing local street circulation within the project area.

DATA COLLECTION

TJKM collected intersection turning movement counts at the study intersections for vehicles, pedestrians, and bicycles on Tuesday, March 29, 2016 and Wednesday, February 24, 2016, on a typical weekday when the schools were in session. The turning movement counts were collected for weekday a.m. (7:00 a.m.–9:00 a.m.) and p.m. (4:00 p.m.–6:00 p.m.) peak periods. The intersection turning movement counts are illustrated in **Figures 10** and **11**. **Appendix C** contains the vehicle, pedestrian, and bicycle counts for the study intersections.

24-hour bi-directional counts were collected for two days from Tuesday, February 23, 2016 to Wednesday, February 24, 2016 at the six locations listed below:

- Edgewood Drive from Newell Road to Island
- Edgewood Drive from Newell Road to Jefferson Drive
- Newell Road from Edgewood Drive to Hamilton Avenue
- Woodland Avenue from Cooley Avenue to Newell Road
- Newell Road from Woodland Avenue to West Bayshore Road (EPA)
- Woodland Avenue from Newell Road to Clarke Avenue

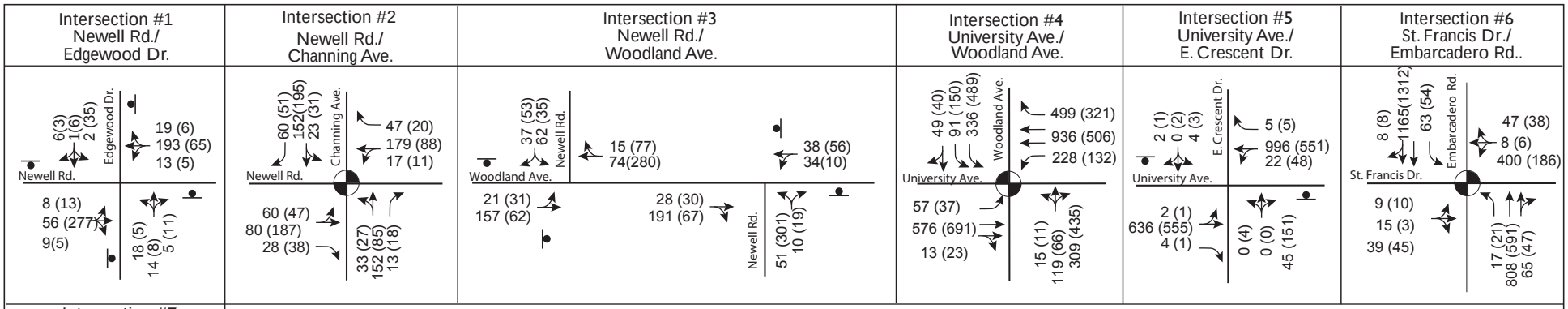
The ADT volumes are summarized in **Table 3**. ADT volumes collected for six roadway segments are shown in **Figure 12**. Detailed results of 24-hour traffic volumes are presented in **Appendix C**.

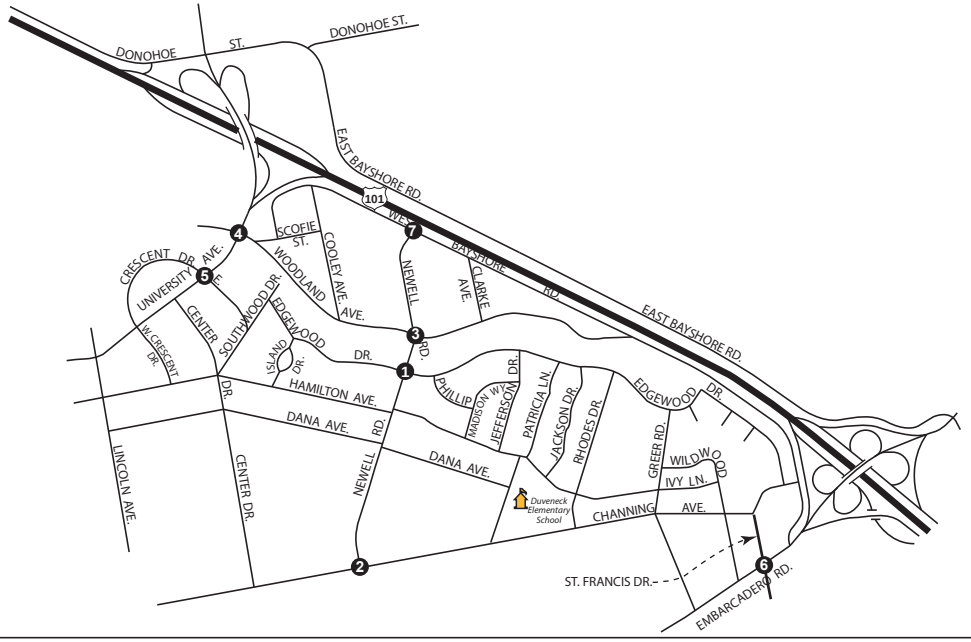
Table 3: Average Daily Traffic Summary

Location	***Period***	***EB Average Volumes (vpd)***	***WB Average Volumes (vpd)***	***Total (vpd)***
Edgewood Dr. from Newell Rd. to Island	Weekday (Tues - Wed)	308	274	582
Edgewood Dr. from Newell Rd. to Jefferson Drive	Weekday (Tues - Wed)	187	247	434
Newell Rd. from Edgewood Dr. to Hamilton Ave.	Weekday (Tues - Wed)	2,046	1,378	3,423
Woodland Ave. from Cooley Ave. to Newell Rd.	Weekday (Tues - Wed)	1,668	2,476	4,144
Woodland Ave. from Newell Rd. to Clarke Ave.	Weekday (Tues - Wed)	607	708	1,314
Location	***Period***	***NB Average Volumes (vpd)***	***SB Average Volumes (vpd)***	***Total (vpd)***
Newell Rd. from Woodland Ave. to W. Bayshore Rd. (EPA)	Weekday (Tues - Wed)	950	856	1,805

The general traffic flow at the bridge seems to indicate that during the a.m. peak hour, approximately 80% of the traffic is southbound and approximately 20% is northbound. It is generally reversed during the p.m. peak hour.

Existing Conditions Traffic Volumes, Lane Geometry and Traffic Controls





LEGEND

- X Study Intersection
- Signalized Intersection
- XX AM Peak Hour Volume
- (XX) PM Peak Hour Volume

N

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Figure 10

Existing Bicycle and Pedestrian Peak Hour Turning Movement Volumes

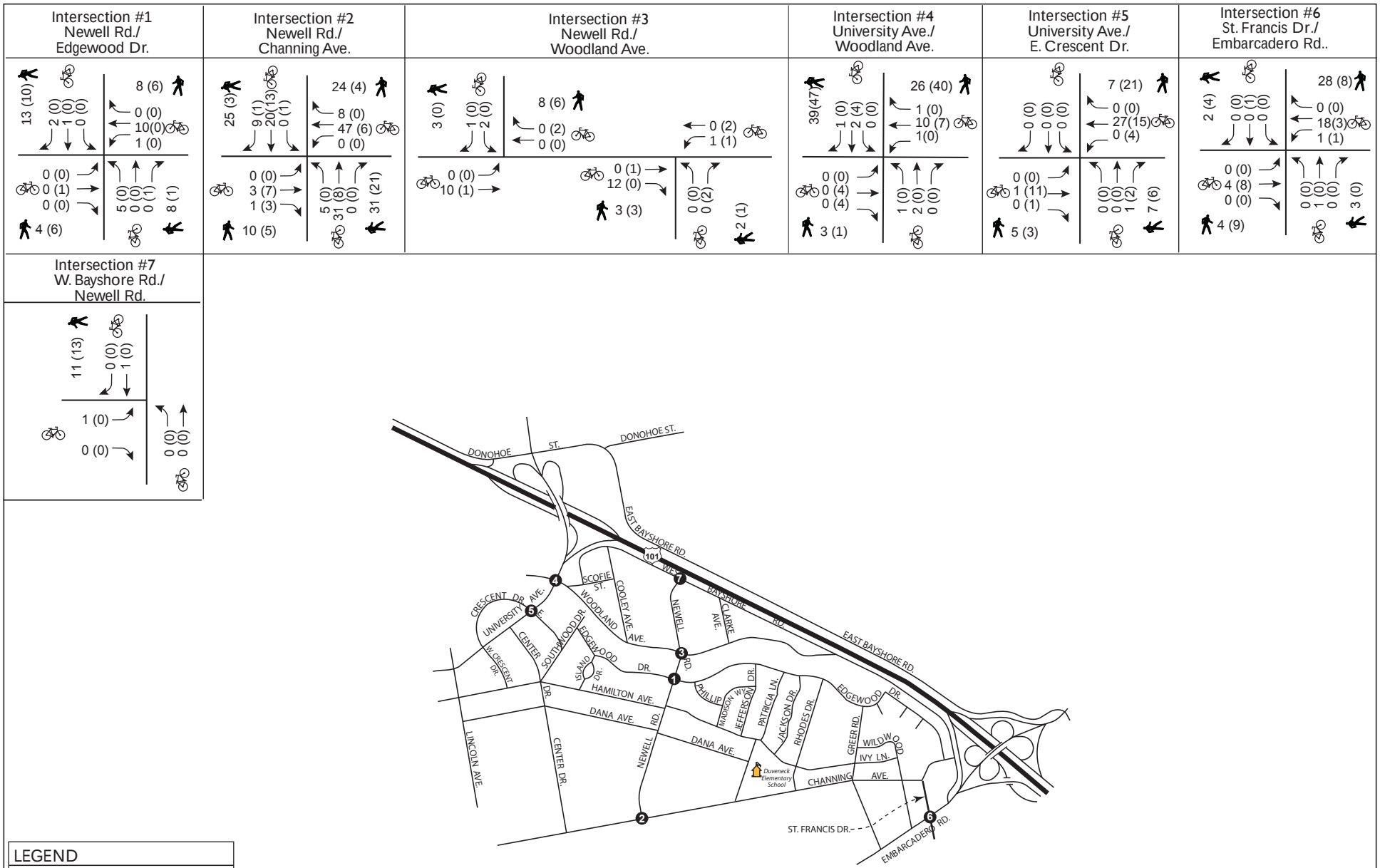

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Figure 11

Existing Average Daily Traffic (ADT) Volumes

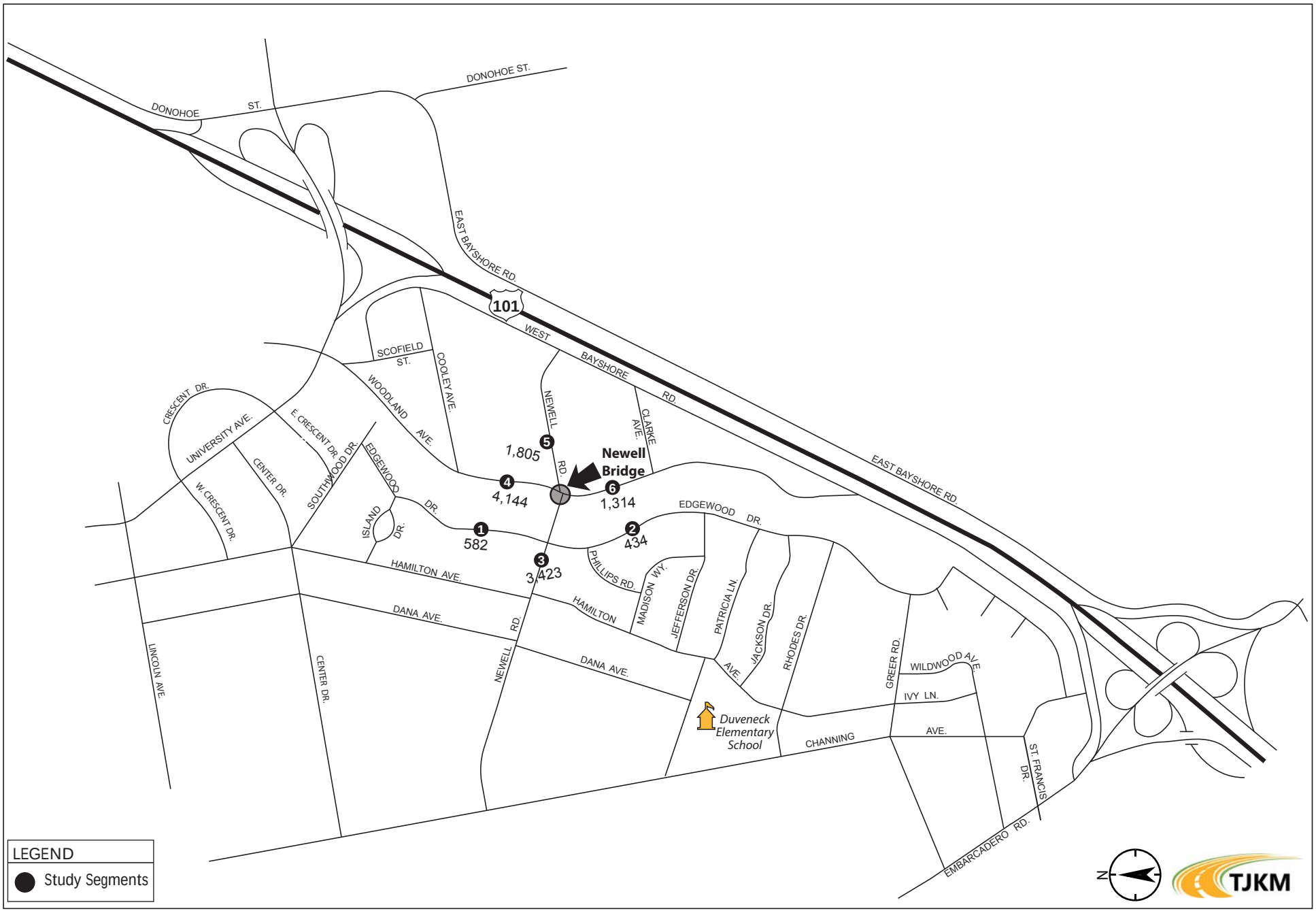

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Figure 12

EXISTING CONDITIONS (YEAR 2016) LOS ANALYSIS

The Existing Conditions (Year 2016) analyses for each of the five alternatives was conducted for all of the study intersections, for the highest one-hour volume during the weekday a.m. and p.m. peak periods. For alternatives 1 and 2, the existing turning movement counts collected by TJKM were used. For alternatives 3, 4, and 5, background trips generated by the Car Dealership Project on 1700 Embarcadero Road were added to Saint Francis Drive/Embarcadero Road intersection. Additionally, rerouting of the vehicles through the study area was conducted to show a 3%, 5%, and 2% increase in traffic through Newell Road Bridge for alternatives 3, 4, and 5 respectively. **Figures 13**, **14,** and **15** summarize the peak hour intersection turning movement counts for alternatives 3, 4, and 5. **Appendix D** contains the background trips provided by City of Palo Alto for the Car Dealership Project. The results of the LOS analysis using Traffix and Synchro 8 Software's for Existing Conditions (Year 2016) are summarized in **Table 4**.

Under the Existing Conditions (Year 2016) scenario, all of the study intersections operate within applicable jurisdictional standards of the City of Palo Alto (LOS D or better) during the a.m. and p.m. peak hours, with the exception of the University Drive/East Crescent Drive intersection, which operates at LOS E during the a.m. peak hour for all study alternatives. **Appendix E** contains the LOS worksheets for all five alternatives under the Existing Conditions (Year 2016) scenario.

Table 4: Existing Conditions (Year 2016) LOS & Delay Analysis

ID	Study Intersections	Control	Peak Hour	Alternative 1 No Project		Alternative 2 Signal Control		Alternative 3 Partial Realignment		Alternative 4 Full Realignment		Alternative 5 Existing Alignment	
				Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
1	Newell Rd./ Edgewood Dr.	AWSC	A.M.	8.1	A	11.1	B	8.2	A	8.2	A	8.1	A
			P.M.	8.8	A	27.0	C	8.9	A	8.9	A	8.8	A
2	Newell Rd./ Channing Ave.	Signal	A.M.	15.5	B	15.5	B	15.5	B	15.6	B	15.5	B
			P.M.	15.7	B	15.7	B	15.7	B	15.7	B	15.7	B
3[2]	Newell Rd./ Woodland Ave. (South Leg)	AWSC	A.M.	7.7	A	6.3	A	7.7	A	7.9	A	7.7	A
			P.M.	9.5	A	5.1	A	9.6	A	9.4	A	9.6	A
	Newell Rd./ Woodland Ave. (North Leg)	AWSC	A.M.	8.1	A	23.1	C	8.1	A	-		8.2	A
			P.M.	9.2	A	14.0	B	9.3	A	-		9.3	A
4	University Ave./ Woodland Ave.	Signal	A.M.	37.8	D	37.8	D	36.9	D	37.0	D	36.8	D
			P.M.	41.3	D	41.3	D	40.7	D	40.9	D	40.5	D
5	University Ave./ E. Crescent Dr.	TWSC	A.M.	**49.0**	**E**	**49.0**	**E**	**48.4**	**E**	**48.0**	**E**	**48.6**	**E**
			P.M.	32.2	D	32.2	D	31.6	D	31.2	D	31.8	D
6	St. Francis Dr./ Embarcadero Rd.	Signal	A.M.	27.1	C	27.1	C	27.0	C	27.0	C	27.0	C
			P.M.	16.4	B	16.4	B	16.3	B	16.3	B	16.3	B
7	W. Bayshore Rd./Newell Rd.	OWSC	A.M.	10.3	B	10.3	B	10.3	B	10.3	B	10.3	B
			P.M.	11.4	B	11.4	B	11.4	B	11.4	B	11.4	B

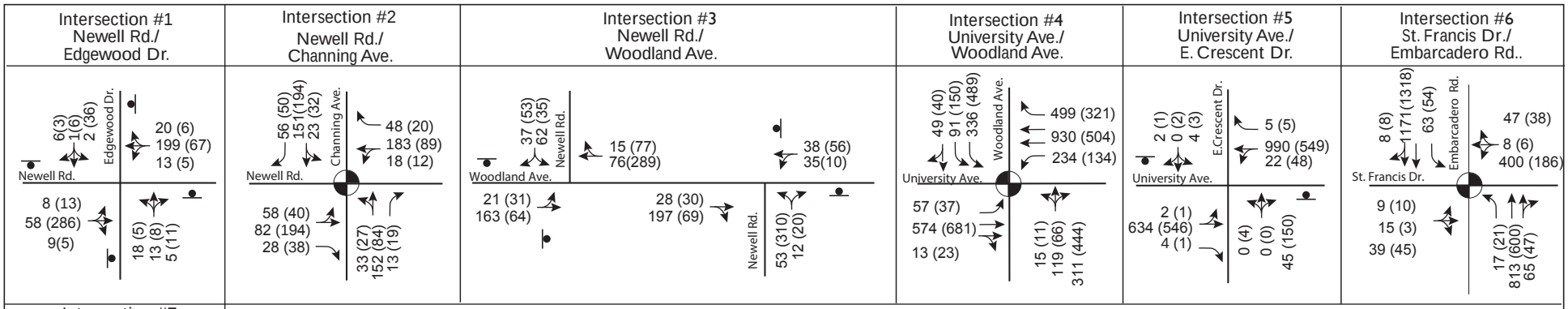
Notes:

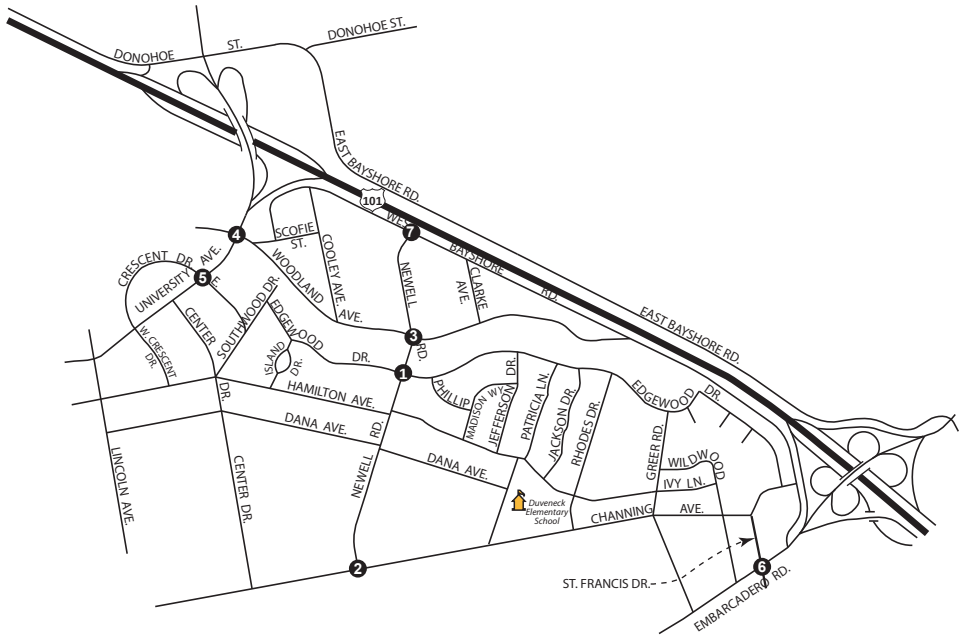
[1] Delay: Overall intersection delay in seconds per vehicle for signalized intersections. Delay for minor approach worst movement at unsignalized intersections.

[2] Newell Road/Woodland Avenue is a four-legged intersection for Alternative 4.

AWSC – All Way Stop Control; TWSC – Two-Way Stop Control; OWSC – One-Way Stop Control.

Alternative 3- Two Lane Vehicle Bridge with Partial Realignment - Existing Peak Hour Volume Estimates



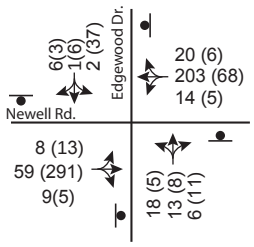
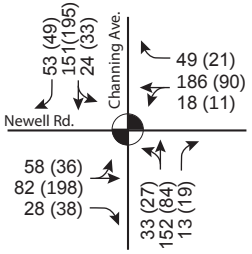
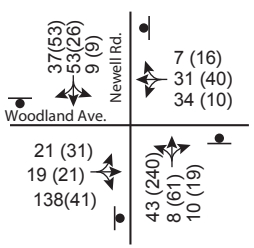
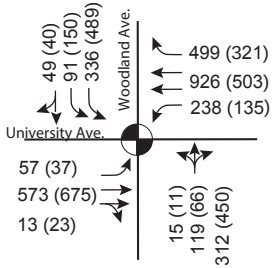
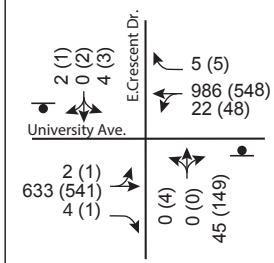
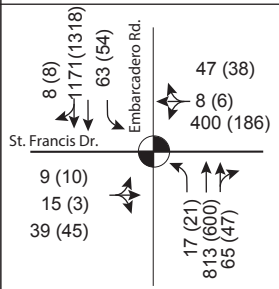
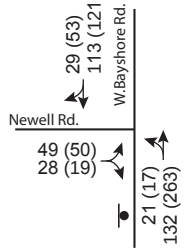


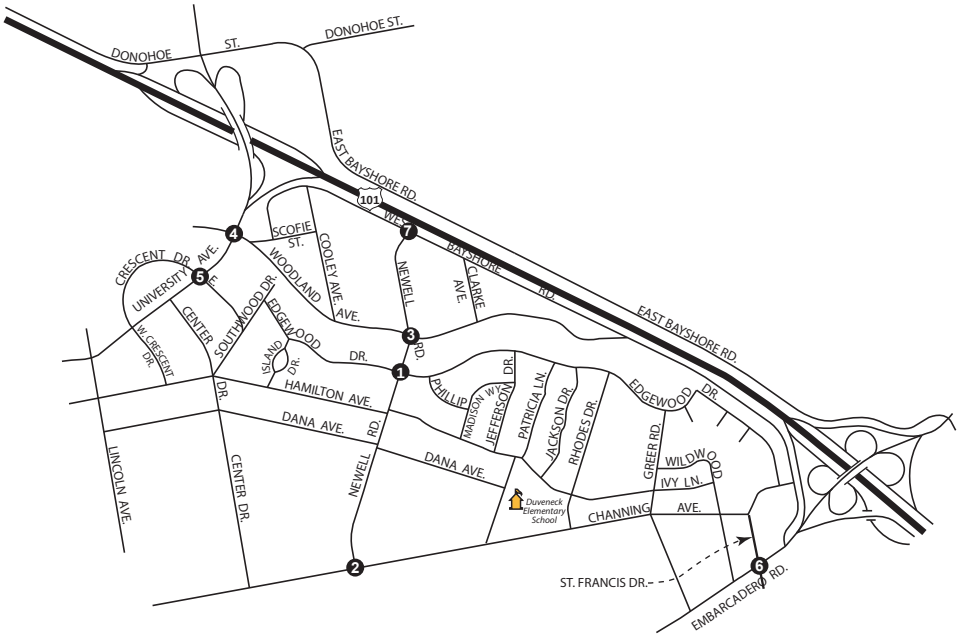
LEGEND	
X	Study Intersection
	Signalized Intersection
XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume

042-051

Figure 13

Alternative 4- Two Lane Vehicle Bridge with Full Realignment - Existing Peak Hour Volume Estimates

Intersection #1 Newell Rd./ Edgewood Dr.	Intersection #2 Newell Rd./ Channing Ave.	Intersection #3 Newell Rd./ Woodland Ave.	Intersection #4 University Ave./ Woodland Ave.	Intersection #5 University Ave./ E. Crescent Dr.	Intersection #6 St. Francis Dr./ Embarcadero Rd..	Intersection #7 W. Bayshore Rd./ Newell Rd.
						



LEGEND	
X	Study Intersection
	Signalized Intersection
XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume

N

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Figure 14

Alternative 5 - New Two Lane Vehicle Bridge Option on Existing Alignment - Existing Peak Hour Volume Estimates

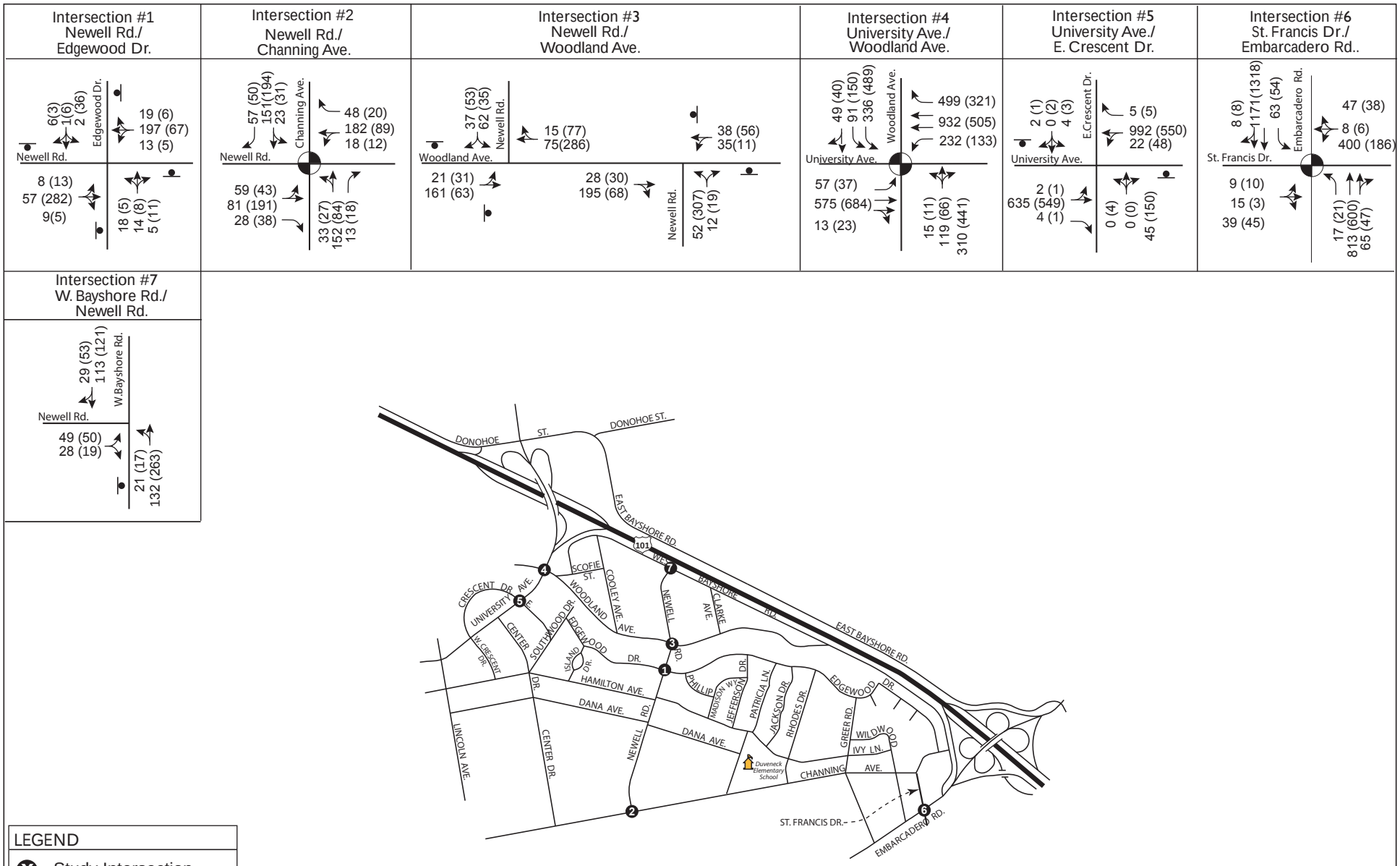

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Figure 15

PROJECT COMPLETE/OPEN TO TRAFFIC CONDITIONS (YEAR 2020)

This scenario evaluates LOS for each of the five alternatives using newly collected data, and applying a growth rate of 1% per year. This is based on the *East Palo Alto General Plan Update*, dated April 2016, and existing and projected 2040 information provided by the City of Palo Alto for the University Avenue/Woodland intersection. For alternatives 3, 4, and 5, background trips generated by the Car Dealership Project on 1700 Embarcadero Road were added to Saint Francis Drive/Embarcadero Road intersection. Additionally, rerouting of the vehicles through the study area was conducted to show a 3%, 5%, and 2% increase in traffic through Newell Road Bridge for alternatives 3, 4, and 5 respectively. **Figures 16, 17, 18,** and **19** summarize the peak hour intersection traffic demands for No Project Conditions (alternatives 1 and 2), alternatives 3, 4, and 5 respectively.

PROJECT COMPLETE/OPEN TO TRAFFIC CONDITIONS (YEAR 2020) LOS ANALYSIS

The results of the LOS analysis using Traffix and Synchro 8 Software's for Project Complete/Open to Traffic Conditions (Year 2020) are summarized in **Table 5**.

Under the Project Complete/Open to Traffic Conditions (Year 2020) scenario, all of the study intersections operate within applicable jurisdictional standards of the City of Palo Alto (LOS D or better) during the a.m. and p.m. peak hours, with the exception of the University Drive/East Crescent Drive intersection. The University Drive/East Crescent Drive intersection operates at LOS F and LOS E during the a.m. and p.m. peak hours respectively for all study alternatives. **Appendix F** contains the LOS worksheets for all five alternatives.

Table 5: Project Complete/Open to Traffic Conditions (Year 2020) LOS & Delay Analysis

ID	Study Intersections	Control	Peak Hour	Alternative 1 No Project		Alternative 2 Signal Control		Alternative 3 Partial Realignment		Alternative 4 Full Realignment		Alternative 5 Existing Alignment	
				Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
1	Newell Rd./ Edgewood Dr.	AWSC	A.M.	8.2	A	11.9	B	8.2	A	8.3	A	8.2	A
			P.M.	8.9	A	28.3	C	9.0	A	9.1	A	9.0	A
2	Newell Rd./ Channing Ave.	Signal	A.M.	15.6	B	15.6	B	15.9	B	15.9	B	15.6	B
			P.M.	15.8	B	15.8	B	16.1	B	16.1	B	15.7	B
3[2]	Newell Rd./ Woodland Ave. (South Leg)	AWSC	A.M.	8.1	A	24.3	C	8.2	A	8.0	A	8.2	A
			P.M.	9.4	A	14.3	B	9.5	A	9.8	A	9.5	A
	Newell Rd./ Woodland Ave. (North Leg)	AWSC	A.M.	7.7	A	6.4	A	7.8	A	-		8.1	7.7
			P.M.	9.7	A	5.3	A	9.8	A	-		9.4	9.8
4	University Ave./ Woodland Ave.	Signal	A.M.	38.3	D	38.3	D	38.5	D	38.6	D	38.4	D
			P.M.	42.4	D	42.4	D	42.8	D	43.2	D	42.6	D
5	University Ave./ E. Crescent Dr.	TWSC	A.M.	**54.8**	**F**	**54.8**	**F**	**54.3**	**F**	**53.8**	**F**	**54.3**	**F**
			P.M.	**35.1**	**E**	**35.1**	**E**	34.6	D	34.0	D	34.7	D
6	St. Francis Dr./ Embarcadero Rd.	Signal	A.M.	28.1	C	28.1	C	28.1	C	28.1	C	28.1	C
			P.M.	16.8	B	16.8	B	16.8	B	16.8	B	16.8	B
7	W. Bayshore Rd./Newell Rd.	OWSC	A.M.	10.4	B	10.4	B	10.4	B	10.4	B	10.6	B
			P.M.	11.6	B	11.6	B	11.6	B	11.6	B	11.6	B

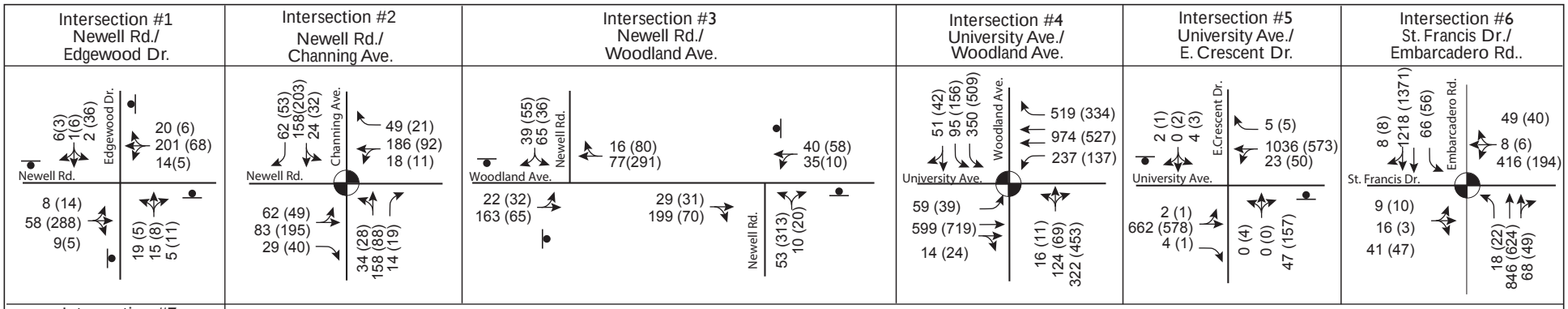
Notes:

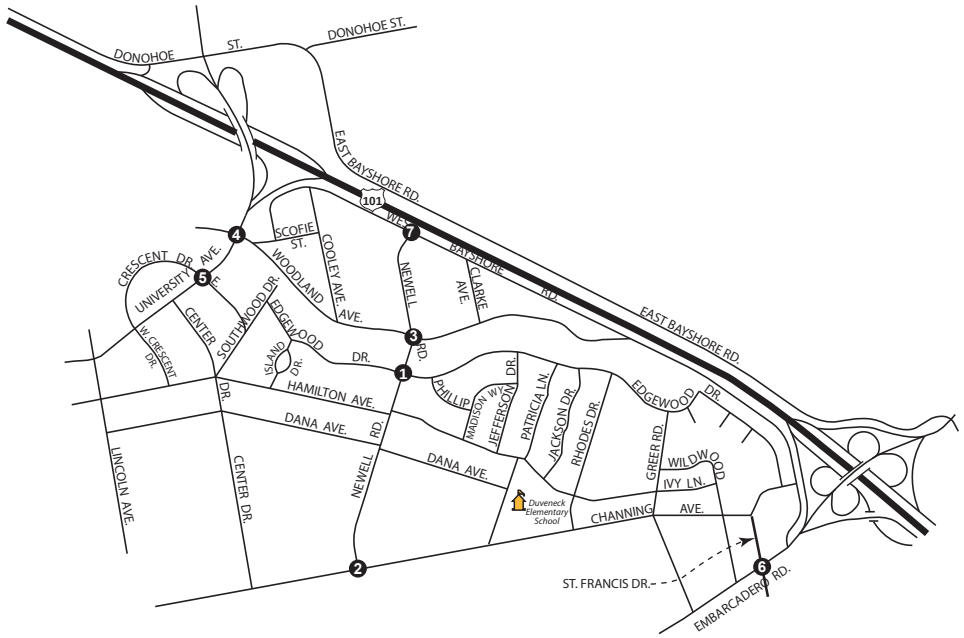
[1] Delay: Overall intersection delay in seconds per vehicle for signalized intersections. Delay for minor approach worst movement at unsignalized intersections.

[2] Newell Road/Woodland Avenue is a four-legged intersection for Alternative 4.

AWSC – All Way Stop Control; TWSC – Two-Way Stop Control; OWSC – One-Way Stop Control.

Alternative 1 and 2 - No Project - Project Complete/Open to Traffic Conditions (Year 2020)
Peak Hour Traffic Demands





LEGEND

- Study Intersection
- Signalized Intersection
- XX AM Peak Hour Volume
- (XX) PM Peak Hour Volume

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Figure 16

Alternative 3 - Two Lane Vehicle Bridge with Partial Realignment - Project Complete/Open to Traffic Conditions (Year 2020) Peak Hour Traffic Demands

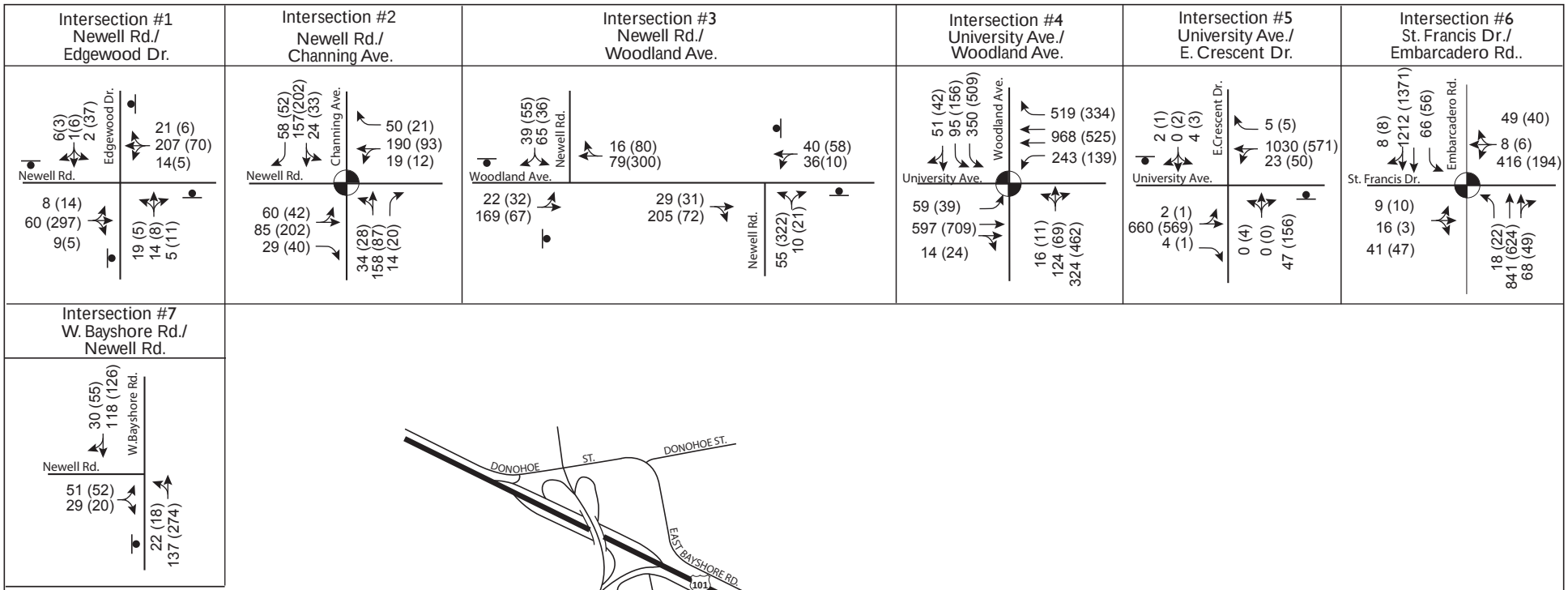

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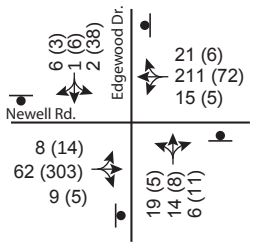
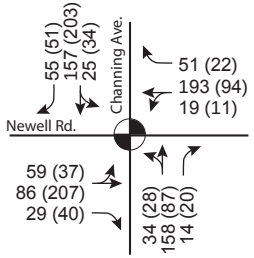
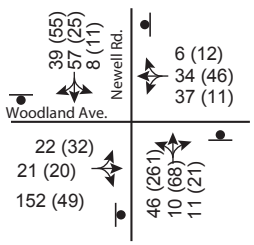
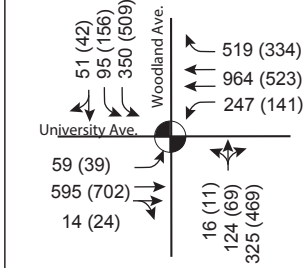
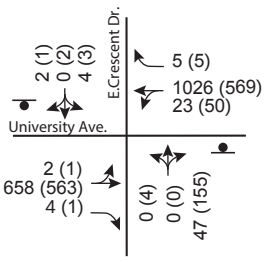
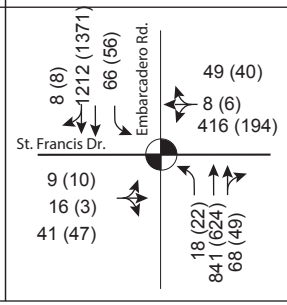
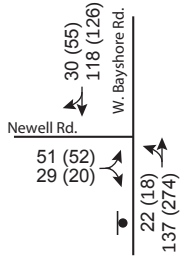
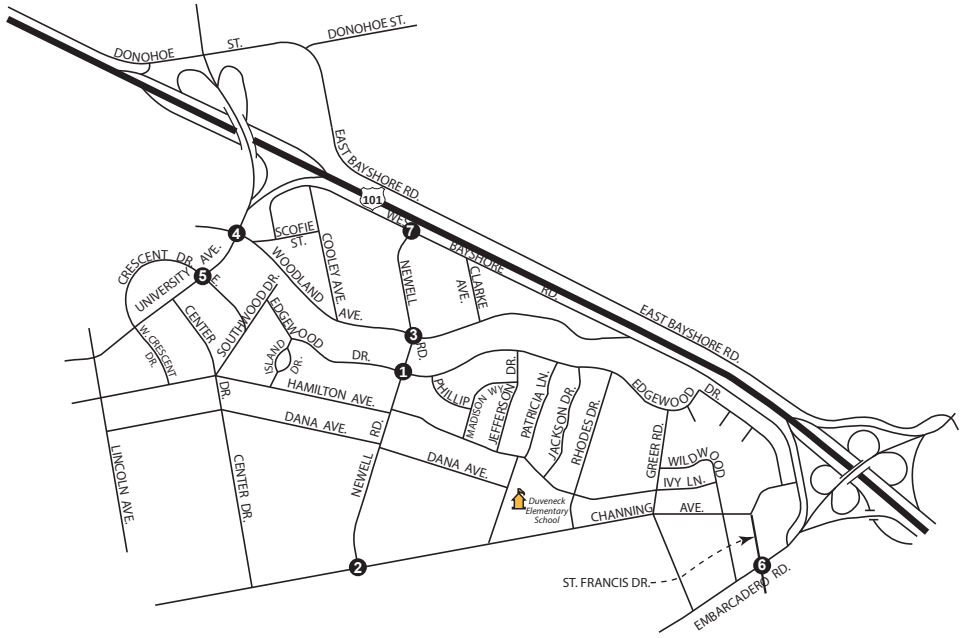
Figure 17

Alternative 4 - Two Lane Vehicle Bridge with Full Realignment - Project Complete/Open to Traffic Conditions (Year 2020) Peak Hour Traffic Demands

Intersection #1 Newell Rd./ Edgewood Dr.	Intersection #2 Newell Rd./ Channing Ave.	Intersection #3 Newell Rd./ Woodland Ave.	Intersection #4 University Ave./ Woodland Ave.	Intersection #5 University Ave./ E. Crescent Dr.	Intersection #6 St. Francis Dr./ Embarcadero Rd..	Intersection #7 W. Bayshore Rd./ Newell Rd.
						



LEGEND
X Study Intersection
Signalized Intersection
XX AM Peak Hour Volume
(XX) PM Peak Hour Volume

N

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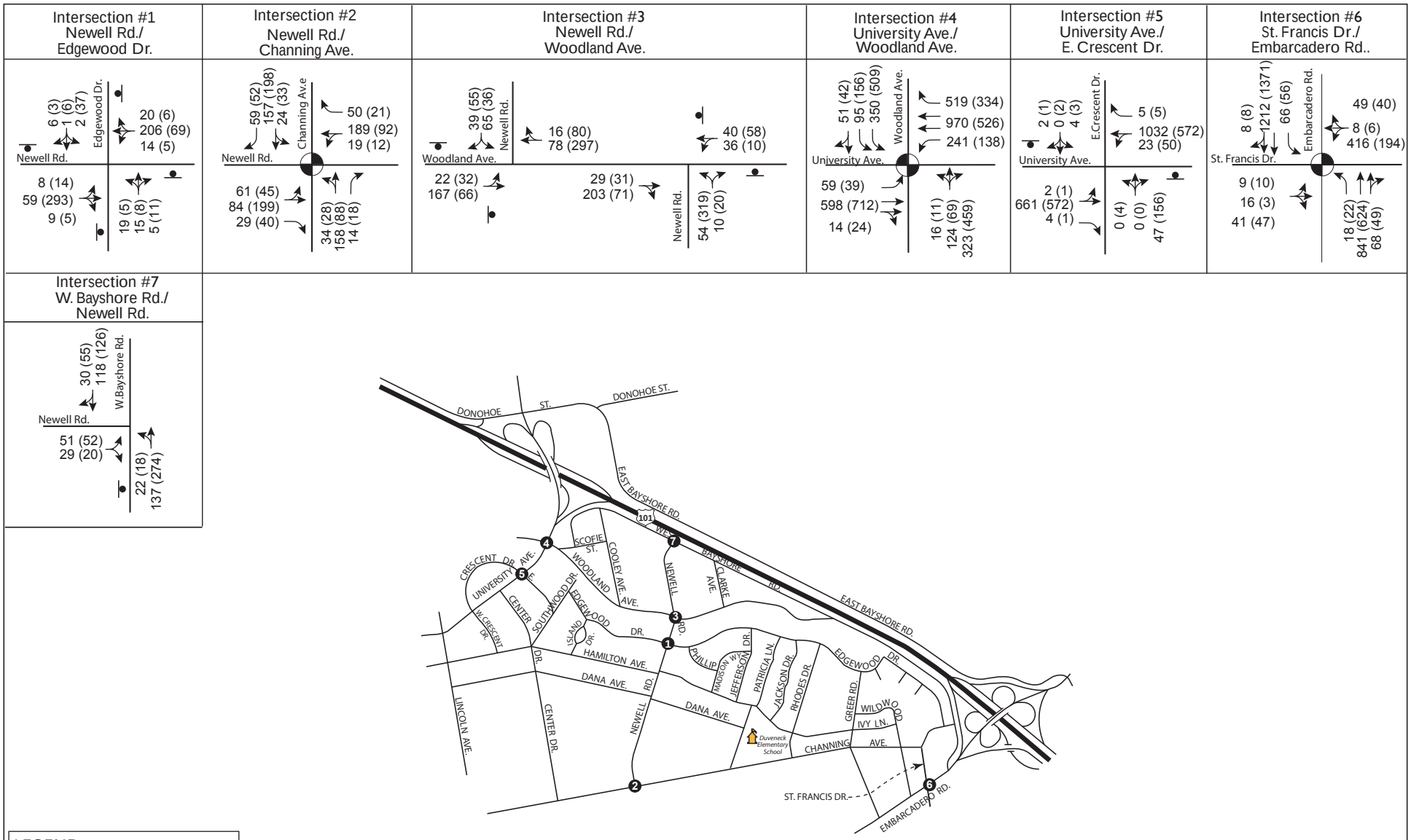
Figure 18

Alternative 5 - New Two Lane Vehicle Bridge Option on Existing Alignment - Project Complete/ Open to Traffic Conditions (Year 2020) Peak Hour Traffic Demands



LEGEND

- Study Intersection
- Signalized Intersection
- XX AM Peak Hour Volume
- (XX) PM Peak Hour Volume

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Figure 19

CUMULATIVE CONDITIONS (YEAR 2040)

This scenario evaluates LOS for each of the five alternatives using newly collected data and applying a growth rate of 1% per year. This is based on the *East Palo Alto General Plan Update*, dated April 2016, and existing and projected 2040 information provided by the City of Palo Alto for the University Avenue/Woodland intersection. For alternatives 3, 4, and 5, background trips generated by the Car Dealership Project on 1700 Embarcadero Road were added to Saint Francis Drive/Embarcadero Road intersection. Additionally, rerouting of the vehicles through the study area was conducted to show a 3%, 5%, and 2% increase in traffic through Newell Road Bridge for alternatives 3, 4, and 5 respectively. **Figures 20**, **21**, **22**, and **23** summarize the peak hour intersection traffic demands for No Project Conditions (alternatives 1 and 2), alternatives 3, 4, and 5.

CUMULATIVE CONDITIONS (YEAR 2040) LOS ANALYSIS

The results of the LOS analysis using Traffix and Synchro 8 Software's for Cumulative Conditions (Year 2040) are summarized in **Table 6**.

Under the Cumulative Conditions (Year 2040) scenario, all of the study intersections operate within applicable jurisdictional standards of the City of Palo Alto (LOS D or better) during the a.m. and p.m. peak hours, with the exception of the University Drive/Woodland Drive and University Drive/East Crescent Drive intersections. The University Drive/Woodland Drive and University Drive/East Crescent Drive intersections operate at LOS E or worse during the a.m. and p.m. peak hours for all study alternatives. **Appendix G** contains the LOS worksheets for all five alternatives.

Table 6: Cumulative Conditions (Year 2040) LOS & Delay Analysis

ID	Study Intersections	Control	Peak Hour	Alternative 1 No Project		Alternative 2 Signal Control		Alternative 3 Partial Realignment		Alternative 4 Full Realignment		Alternative 5 Existing Alignment	
				Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
1	Newell Rd./ Edgewood Dr.	AWSC	A.M.	8.6	A	12.7	B	8.7	A	8.7	A	8.7	A
			P.M.	9.7	A	32.7	C	9.8	A	9.9	A	9.8	A
2	Newell Rd./ Channing Ave.	Signal	A.M.	16.5	B	16.5	B	16.5	B	16.5	B	16.0	B
			P.M.	16.7	B	16.7	B	16.7	B	16.7	B	16.2	B
3[2]	Newell Rd./ Woodland Ave. (South Leg)	AWSC	A.M.	8.1	A	6.8	A	8.1	A	8.4	A	8.1	A
			P.M.	11.0	B	6.4	A	11.2	B	11.4	B	11.1	B
	Newell Rd./ Woodland Ave. (North Leg)	AWSC	A.M.	8.6	A	25.5	C	8.6	A	-		8.6	A
			P.M.	10.7	B	16.2	B	10.9	B	-		10.8	B
4	University Ave./ Woodland Ave.	Signal	A.M.	**56.3**	**E**	**56.3**	**E**	**56.7**	**E**	**56.9**	**E**	**56.5**	**E**
			P.M.	**67.7**	**E**	**67.7**	**E**	**69.4**	**E**	**70.1**	**E**	**69.8**	**E**
5	University Ave./ E. Crescent Dr.	TWSC	A.M.	**110.5**	**F**	**110.5**	**F**	**108.6**	**F**	**107.4**	**F**	**108.5**	**F**
			P.M.	**66.6**	**F**	**66.6**	**F**	**64.5**	**F**	**63.2**	**F**	**64.7**	**F**
6	St. Francis Dr./ Embarcadero Rd.	Signal	A.M.	40.7	D	40.7	D	40.7	D	40.7	D	40.7	D
			P.M.	20.2	C	20.2	C	20.2	C	20.2	C	20.2	C
7	W. Bayshore Rd./Newell Rd.	OWSC	A.M.	11.1	B	11.1	B	11.1	B	11.1	B	11.1	B
			P.M.	12.8	B	12.8	B	12.8	B	12.8	B	12.8	B

Notes:

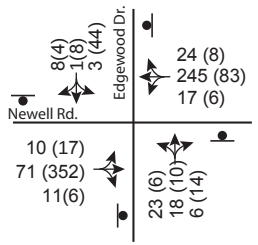
[1] Delay: Overall intersection delay in seconds per vehicle for signalized intersections. Delay for minor approach worst movement at unsignalized intersections.

[2] Newell Road/Woodland Avenue is a four-legged intersection for Alternative 4.

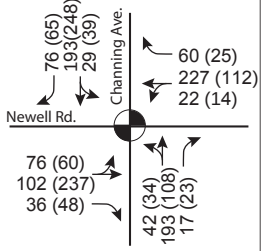
AWSC – All Way Stop Control; TWSC – Two-Way Stop Control; OWSC – One-Way Stop Control.

Alternative 1 and 2 - No Project - Cumulative Conditions (Year 2040) Peak Hour Traffic Demands

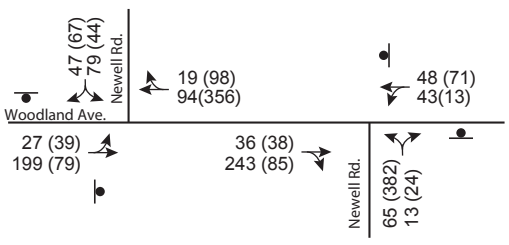
Intersection #1
Newell Rd./
Edgewood Dr.



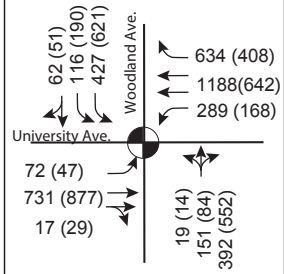
Intersection #2
Newell Rd./
Channing Ave.



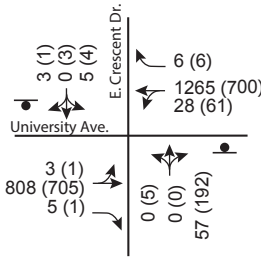
Intersection #3
Newell Rd./
Woodland Ave.



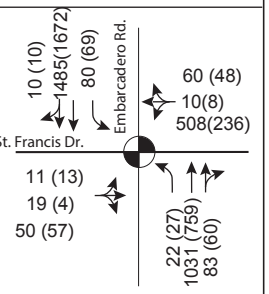
Intersection #4
University Ave./
Woodland Ave.



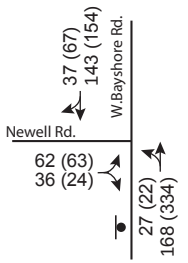
Intersection #5
University Ave./
E. Crescent Dr.

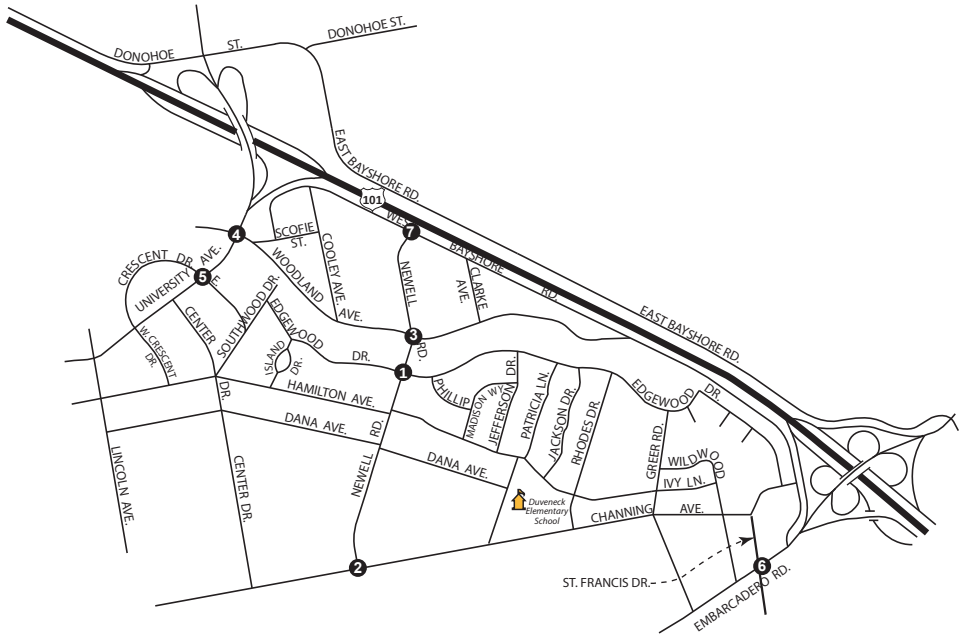


Intersection #6
St. Francis Dr./
Embarcadero Rd..



Intersection #7
W. Bayshore Rd./
Newell Rd.





LEGEND

- X Study Intersection
- Signalized Intersection
- XX AM Peak Hour Volume
- (XX) PM Peak Hour Volume

042-051

Figure 20

Alternative 3- Two Lane Vehicle Bridge with Partial Realignment - Cumulative Conditions (Year 2040) Peak Hour Traffic Demands

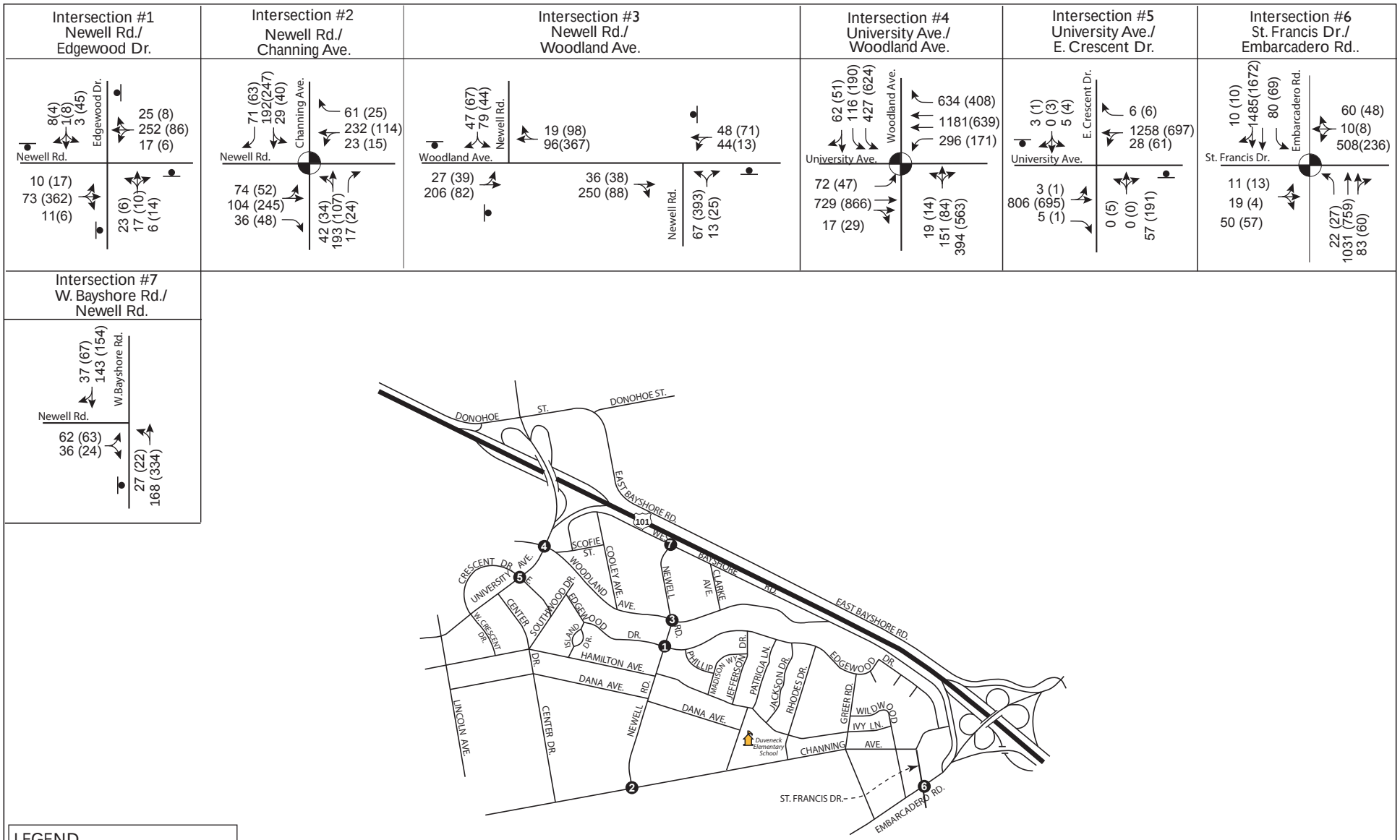


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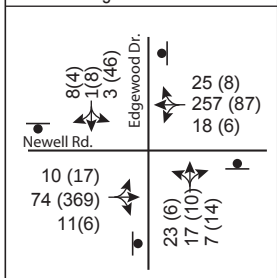
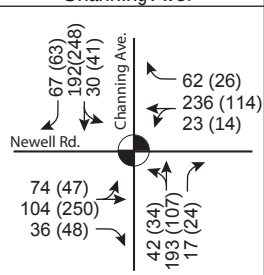
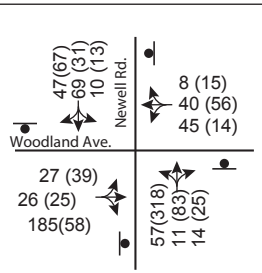
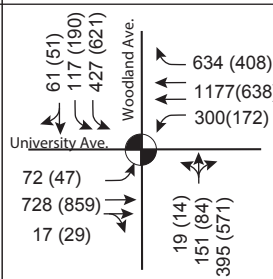
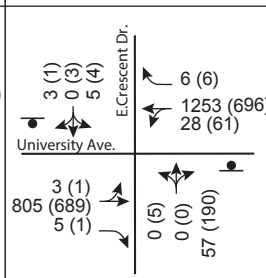
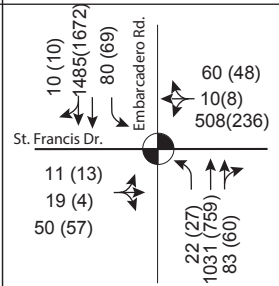
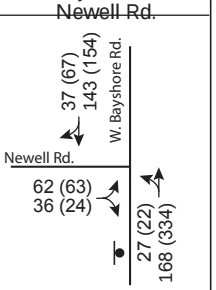
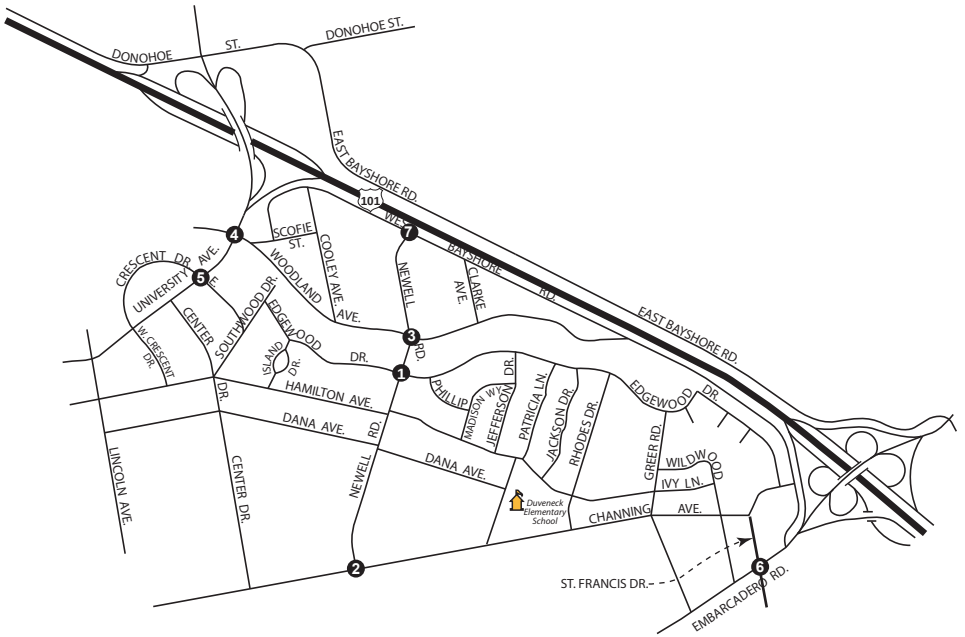
Figure 21

Alternative 4- Two Lane Vehicle Bridge with Full Realignment - Cumulative Conditions (Year 2040) Peak Hour Traffic Demands

Intersection #1 Newell Rd./ Edgewood Dr.	Intersection #2 Newell Rd./ Channing Ave.	Intersection #3 Newell Rd./ Woodland Ave.	Intersection #4 University Ave./ Woodland Ave.	Intersection #5 University Ave./ E. Crescent Dr.	Intersection #6 St. Francis Dr./ Embarcadero Rd..	Intersection #7 W. Bayshore Rd./ Newell Rd.
						



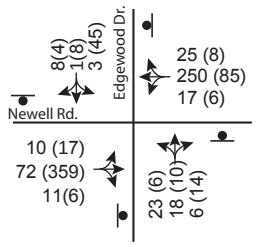
LEGEND	
X	Study Intersection
	Signalized Intersection
XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume

042-051

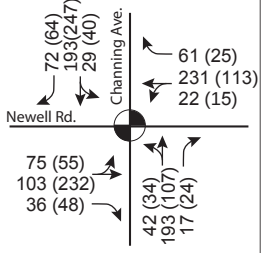
Figure 22

Alternative 5- New Two Lane Vehicle Bridge Option on Existing Alignment - Cumulative Conditions (Year 2040) Peak Hour Traffic Demands

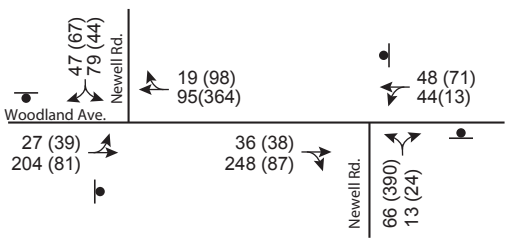
Intersection #1
Newell Rd./
Edgewood Dr.



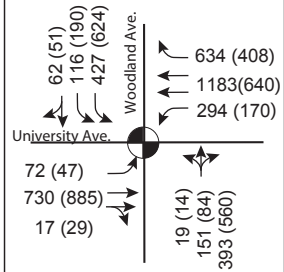
Intersection #2
Newell Rd./
Channing Ave.



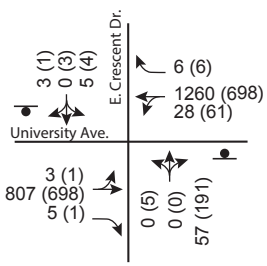
Intersection #3
Newell Rd./
Woodland Ave.



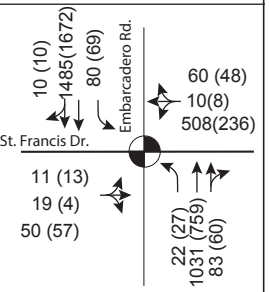
Intersection #4
University Ave./
Woodland Ave.



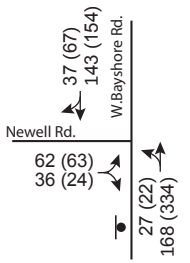
Intersection #5
University Ave./
E. Crescent Dr.

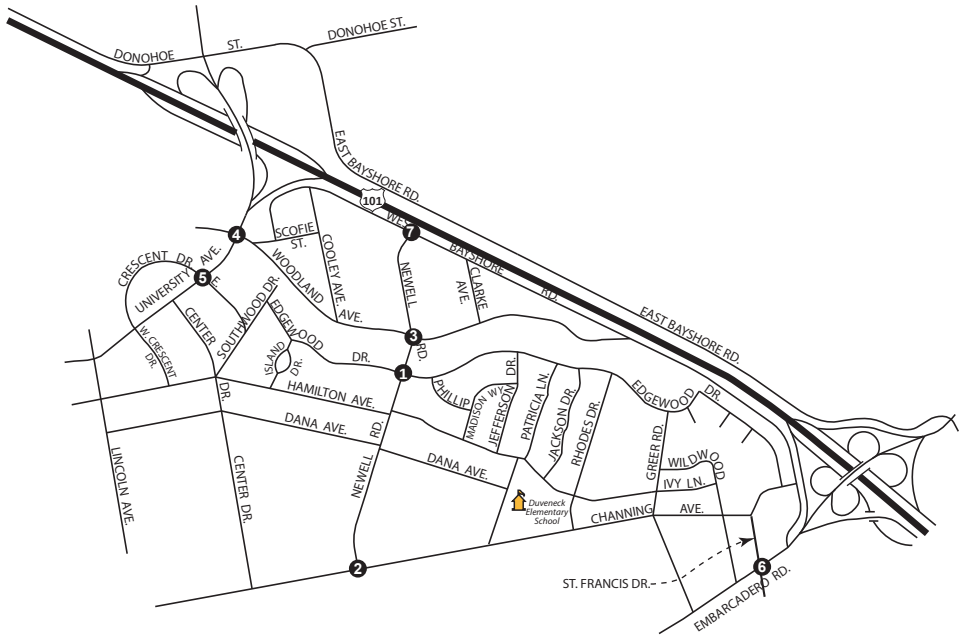


Intersection #6
St. Francis Dr./
Embarcadero Rd..



Intersection #7
W. Bayshore Rd./
Newell Rd.





LEGEND

- X Study Intersection
- Signalized Intersection
- XX AM Peak Hour Volume
- (XX) PM Peak Hour Volume

N

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042-051

Figure 23

TIRE INDEX (TRAFFIC INFUSION ON RESIDENTIAL ENVIRONMENT) ANALYSIS

ADT for six roadway segments was collected, as mentioned in the Data Collection Section of the report, and is shown in **Figure 3**. A TIRE analysis for the Existing Conditions (Year 2016), Project Completion (Year 2020), and Cumulative Conditions (2040) was conducted for the five alternatives. The results of the TIRE analysis for the Existing Conditions (Year 2016), Project Completion (Year 2020), and Cumulative Conditions (Year 2040) are shown in **Table 7**, **8**, and **9**, respectively.

The results indicated that there is no significant impacts on any of the roadways selected for the study under all alternatives during Existing Conditions. Additionally, no significant impacts are expected for the roadways under all alternatives during Project Completion (2020) and Cumulative Conditions (2040) since the projected project trip volumes do not exceed the volume threshold to change the TIRE Index by 0.1 and create a significant impact for the residents.

Table 7: TIRE Analysis – Existing Conditions (Year 2016)

No.	*Roadway*	*Segment*	*Alternative 1 & 2*		*Alternative 3*		*Alternative 4*		*Alternative 5*		*Volume to cause + 0.1 Change in Index*	*Significant Impact?*
			Existing ADT (vpd)	*TIRE Index*	*Project Trips[1]*	*TIRE Index*	*Project Trips[1]*	*TIRE Index*	*Project Trips[1]*	*TIRE Index*		
1	Edgewood Dr.	From Newell Rd. to Island	582	2.8	10	2.8	15	2.8	5	2.8	140	No
2	Edgewood Dr.	Between Newell Rd. & Jefferson Dr.	434	2.6	10	2.6	10	2.6	0	2.6	97	No
3	Newell Rd.	Between Edgewood Dr.& Hamilton Ave.	3,425	3.5	95	3.5	150	3.5	60	3.5	825	No
4	Woodland Ave.	Between Cooley Ave. & Newell Rd.	4,144	3.6	95	3.6	155	3.6	60	3.6	1,025	No
5	Newell Rd.	Between Woodland Ave.& W. Bayshore Rd. (EPA)	1,805	3.3	0	3.3	0	3.3	0	3.3	500	No
6	Woodland Ave.	Between Newell Rd. & Clarke Ave.	1,314	3.1	10	3.1	25	3.1	10	3.1	290	No

Notes:

[1] For Alternatives 3, 4 and 5, rerouting of vehicles through Newell Bridge Road has been increased by 3%, 5% and 2% respectively.
Daily Project Trips = (A.M. + P.M. Peak Hour Trips)*5

Alternative 1: No Project (Leave Existing Bridge in Place)
Alternative 2: One Lane Bi-Directional Bridge Option with Signal Control
Alternative 3: Two-Lane Vehicle Bridge Option with Partial Realignment for Newell Road
Alternative 4: Two-Lane Vehicle Bridge Option with Full Realignment of Newell Road
Alternative 5: New Two-Lane Vehicle Bridge Option on Existing Alignment of Newell Road

Table 8: TIRE Analysis – Project Completion Conditions (Year 2020)

No.	Roadway	Segment	Alternative 1 & 2		Alternative 3		Alternative 4		Alternative 5		Volume to cause + 0.1 Change in Index	Significant Impact?
			2020 ADT[1] (vpd)	TIRE Index	Project Trips[2]	TIRE Index	Project Trips[2]	TIRE Index	Project Trips[2]	TIRE Index		
1	Edgewood Dr.	From Newell Rd. to Island	606	2.8	10	2.8	16	2.8	5	2.8	140	No
2	Edgewood Dr.	Between Newell Rd. & Jefferson Dr.	452	2.7	10	2.7	10	2.7	0	2.7	114	No
3	Newell Rd.	Between Edgewood Dr.& Hamilton Ave.	3,562	3.6	99	3.6	156	3.6	62	3.6	1,025	No
4	Woodland Ave.	Between Cooley Ave. & Newell Rd.	4,312	3.6	99	3.6	161	3.6	62	3.6	1,025	No
5	Newell Rd.	Between Woodland Ave.& W. Bayshore Rd. (EPA)	1,878	3.3	0	3.3	0	3.3	0	3.3	500	No
6	Woodland Ave.	Between Newell Rd. & Clarke Ave.	1,367	3.1	10	3.1	26	3.1	10	3.1	290	No

Notes:
[1] Existing Average Daily Traffic (ADT) Projected to Year 2020 Conditions.
[2] For Alternatives 3, 4 and 5, Existing Conditions Project Trips Projected to Year 2020 Conditions.
Alternative 1: No Project (Leave Existing Bridge in Place)
Alternative 2: One Lane Bi-Directional Bridge Option with Signal Control
Alternative 3: Two-Lane Vehicle Bridge Option with Partial Realignment for Newell Road
Alternative 4: Two-Lane Vehicle Bridge Option with Full Realignment of Newell Road
Alternative 5: New Two-Lane Vehicle Bridge Option on Existing Alignment of Newell Road

Table 9: TIRE Analysis – Cumulative Conditions (Year 2040)

No.	Roadway	Segment	Alternative 1 & 2		Alternative 3		Alternative 4		Alternative 5		Volume to cause + 0.1 Change in Index	Significant Impact?
			2040 ADT[1] (vpd)	TIRE Index	Project Trips[2]	TIRE Index	Project Trips[2]	TIRE Index	Project Trips[2]	TIRE Index		
1	Edgewood Dr.	From Newell Rd. to Island	739	2.9	13	2.9	19	2.9	6	2.9	170	No
2	Edgewood Dr.	Between Newell Rd. & Jefferson Dr.	551	2.7	13	2.8	13	2.8	0	2.7	114	No
3	Newell Rd.	Between Edgewood Dr.& Hamilton Ave.	4,346	3.6	121	3.6	190	3.7	76	3.6	1,025	No
4	Woodland Ave.	Between Cooley Ave. & Newell Rd.	5,262	3.7	121	3.7	197	3.7	76	3.7	1,250	No
5	Newell Rd.	Between Woodland Ave.& W. Bayshore Rd. (EPA)	2,292	3.4	0	3.4	0	3.4	0	3.4	650	No
6	Woodland Ave.	Between Newell Rd. & Clarke Ave.	1,668	3.2	13	3.2	32	3.2	13	3.2	380	No

Notes:
[1] Existing Average Daily Traffic (ADT) Projected to Year 2040 Conditions.
[2] For Alternatives 3, 4 and 5, Existing Conditions Project Trips Projected to Year 2040 Conditions.
Alternative 1: No Project (Leave Existing Bridge in Place)
Alternative 2: One Lane Bi-Directional Bridge Option with Signal Control
Alternative 3: Two-Lane Vehicle Bridge Option with Partial Realignment for Newell Road
Alternative 4: Two-Lane Vehicle Bridge Option with Full Realignment of Newell Road
Alternative 5: New Two-Lane Vehicle Bridge Option on Existing Alignment of Newell Road

CONCLUSION

Evaluation of the five discussed alternatives under Existing Conditions (Year 2016), Project Complete/Open to Traffic Conditions (Year 2020), and Cumulative Conditions (Year 2040) show that there is no significant difference in LOS and delay between the alternatives, with the exception of Alternative 2. Alternative 2 results in a higher delay at Newell Road/Woodland Avenue (North Leg) for all scenarios, as compared to alternatives 3, 4, and 5. All alternatives, however, operate within the City of Palo Alto's thresholds of significant traffic impact.

The TIRE Index analysis for Existing Conditions (Year 2016), Project Completion (2020), and Cumulative Conditions (2040) indicates that reconfiguration of the Newell Road Bridge would not impact the residential homes in the neighborhood, as the deviation of traffic on the bridge would not be significant for the residences to notice the change and affect the livability and environment of the study segments.

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TECHNICAL MEMORANDUM

Date: October 10, 2018

To: Roger A. Montes
NV5
2025 Gateway Place, Suite 156
San Jose, CA 95110
P: 408.392.7222

Project No.: Amendment 1-Newell Bridge Supplemental Traffic Evaluation Report

From: Ruta Jariwala
Project Manager

Shruti Shrivastava
Project Engineer

Jurisdiction: City of Palo Alto

Subject: **Evaluation of Woodland Avenue/University Avenue & Woodland Avenue/E. Crescent Drive Intersections under Existing Bridge Closure Conditions**

The purpose of this memorandum is to perform operational analysis to evaluate the level of service (LOS) and delay at the subject intersections under existing (2018) bridge closure conditions.

Under this task, TJKM will reroute 50% of the trips using the Newell Road Bridge on to the study intersections at University Avenue to evaluate level of service (LOS) and delay under bridge closure conditions. The assumption of rerouting 50% of the trips was made in concurrence with the City Staff based on project meetings and email correspondence. The analysis will be conducted for existing (2018) conditions using the projected 2018 traffic demands from the *Final Supplemental Traffic Evaluation Report, September 2016* for the Newell Road Bridge Replacement Project.

Using the projected 2018 traffic demands from the *Final Supplemental Traffic Evaluation Report, September 2016* for the Newell Road Bridge Replacement Project Traffix models were developed for the weekday a.m. and p.m. peak periods for the bridge closure conditions scenario. *Highway Capacity Manual (HCM), 2000 Edition* was adopted in assessing LOS and delay.

Table 1 summarizes the peak hour a.m. and p.m. volumes at the study intersections and **Table 2** summarizes the results of the analysis. **Appendix A** contains Traffix analysis reports.

Table 1: Existing (2018) and Existing Plus Bridge Closure Traffic Volumes

Scenario	*Intersection*	*Peak Period*	*SBL*	*SBT*	*SBR*	*NBL*	*NBT*	*NBR*	*EBL*	*EBT*	*EBR*	*WBL*	*WBT*	*WBR*
Existing (2018) Conditions	Woodland Ave & University Ave	**AM**	58	588	13	233	955	509	15	121	315	343	93	50
		PM	39	705	23	135	516	327	11	67	444	449	153	41
	E. Crescent Dr & University Ave	**AM**	2	649	4	22	1016	5	0	0	46	4	0	2
		PM	1	566	1	49	562	5	4	0	154	3	2	1
Existing Bridge Closure Conditions	Woodland Ave & University Ave	**AM**	58	**620**	13	233	955	509	**134**	121	315	343	93	50
		PM	39	**870**	23	135	516	327	**65**	67	444	449	153	41
	E. Crescent Dr & University Ave	**AM**	2	**681**	4	22	**1135**	5	0	0	46	4	0	2
		PM	1	**731**	1	49	**616**	5	4	0	154	3	2	1

Table 2: LOS and Delay Analysis

#	*Intersection*	*Peak Period*	*Existing (2018) Conditions*		*Existing Conditions + Bridge Closure Conditions*	
			Delay (sec)	*LOS*	*Delay (sec)*	*LOS*
1	Woodland Ave & University Ave	AM	37.4	D	40.0	D
		PM	41.3	D	46.2	D
2	E. Cresent Dr & University Ave	AM	51.7	F	65.7	F
		PM	33.6	D	49.1	E

Based on the LOS and delay analysis conducted, it was observed that rerouting 50% of the traffic from Newell Bridge onto University Avenue would result in the following:

1. Woodland Avenue/University Drive: This intersection would continue to operate at LOS D during the a.m. and p.m. peak periods.
2. E. Crescent Drive/University Avenue: This intersection would operate at unacceptable LOS F and E during the a.m. and p.m. peak periods respectively.

Rerouting of 50% of the traffic currently using Newell Bridge on to University Avenue would result in E. Crescent Drive/University Avenue operating unacceptably with significant impact under bridge closure conditions.

Attachment F

Environmental Documents and Project Plans

Hardcopies of the Environmental Impact Report (EIR)/Environmental Analysis (EA) and Project Plans were provided to Commissioners. These documents are available to the public online, as described below, or by visiting the Planning and Community Environmental Department on the 5th floor of City Hall at 250 Hamilton Avenue.

Directions to review Environmental Documents and Project Plans online:

1. Go to: https://tinyurl.com/CPA-City-Projects
2. Scroll down to find "Newell Road/San Fransciquito Creek Bridge Replacement Project" under Infrastructure Projects and Storm Drain and click the address link
3. On this project specific webpage you will find a link to the EIR/EA as well as all appendices, technical documents and project plans.

Direct Link to Project Webpage:

https://www.cityofpaloalto.org/gov/city_information/projects/newell_road_bridge_replacement_project.asp