



Memo on Revised Agenda Item 11
Date: December 9, 2020

TO: Mobility Partnership
FROM: Chris Metzger, Project Manager
SUBJECT: SR 152 New Trade Corridor Alternatives Summary Memorandum

ACTION ITEM

RECOMMENDATION:

Accept SR 152 New Trade Corridor Alternatives Summary Memorandum.

BACKGROUND:

See attached SR 152 New Trade Corridor Alternatives Summary Memorandum (Attachment 11) and presentation.



DRAFT

**SR 152 New Trade Corridor
Alternatives Summary Memorandum**

December 7, 2020

**Santa Clara Valley Transportation Authority
San Benito County
A Mobility Partnership**

Kimley»»Horn

Jacobs

Alternatives Summary Memorandum

SR 152 New Trade Corridor

Project No: W8X98500
 Document Title: Alternatives Summary Memorandum
 Document No.: Draft
 Revision: 1
 Document Status: Draft
 Date: December 7, 2020
 Client Name: Santa Clara Valley Transportation Authority
 Client No: Client Reference
 Project Manager: Darrell Vice
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 File Name: SR 152 Alternatives Summary Memorandum_r1_20201207

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Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
0	10/15/20	SR 152 Alternatives Summary Memorandum_r0	JX	NW	JX	DV
1	12/7/20	SR 152 Alternatives Summary Memorandum_r1	JX	NW	JX	DV

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Executive Summary

The SR 152 Alternatives Summary Memorandum was prepared for the Mobility Partnership (a partnership between the Santa Clara Valley Transportation Authority and Council of San Benito County Governments) to present findings of a study on a range of alternatives for the SR 152 New Trade Corridor Project. The memorandum provides information to the Mobility Partnership forming the basis for selecting alternatives to proceed with further analysis during the Project Approvals/Environmental Document phase.

State Route 152 serves as a major east-west corridor connecting the San Francisco Bay Area to Silicon Valley and the Central Valley. The four Alternatives assessed provide improvements for commuters, recreational users, and the movement of goods and services. The range of concepts for the SR 152 Project aligns with the ongoing SR 25/US 101 Interchange Project (Phase 1 for the SR 152 New Trade Corridor). To better understand the critical components of the project, the following criteria were identified and scored for each of the alternatives:

- Operations (travel time and demand generated by the New Trade Corridor)
- Facilitates Multimodal/Transit Use
- Environmental (wildlife corridor, agricultural, and floodplain)
- Community Impacts (right-of-way – non-agricultural and construction)
- Access to Economic Center
- Community Acceptance
- Potential for Tolling to Fund Public Private Partnership
- Other considerations (e.g. safety, cost, and access to the High Speed Rail)

The following table provides a summary of the comparative, weighted scorings for all four alternatives:

Characteristics/Criteria	Weighted Scoring			
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Operations	15	16	11	8
Facilitates Multimodal/Transit Use	7	7	7	6
Environmental Impacts	3	6	6	8
Community Impacts	11	10	8	8
Access to Economic Centers	6	9	12	14
Community Acceptance	5	8	8	5
Potential for Tolling to Fund P3 Approach	6	7	4	2
Total Possible Points	53	62	56	49
Cost	\$490M	\$540M	\$515M	\$560M

Based on the analysis performed, Alternatives 2 and 3 are recommended to proceed with further analysis into the Project Approvals/Environmental Document phase.

1. Introduction

The purpose of the SR 152 New Trade Corridor (NTC) study is to develop concepts for an alternatives assessment to improve Trade and Mobility between Santa Clara County, San Benito County, the Central Valley, and within the general study area. The study area is shown in **Figure 1.1**.



Figure 1.1. New Trade Corridor Study Area

For the context of this report, “alignment” refers to the realigned portion of SR 152. Alternative refers to the alignment through the entire NTC. **Appendix D** through **I** provide relevant figures in this report in 11” x 17” size.

1.1 Background

State Route (SR) 152 serves as a major east-west corridor south of the San Francisco Bay Area for interregional (commuter, commercial, and recreational) traffic. The corridor extends 82 miles from US Route 101 to SR 99, serves the Monterey, Santa Clara, San Benito, Merced, and Madera Counties, and is the only major route between I-580 (60 miles to the north) and SR 46 (120 miles to the south) designated for truck use. Approximately 26% of truck traffic along these corridors (SR 152, I-580, and SR 46) use SR 152 to travel between the Central Valley and the Central Coast/South Bay.

Caltrans has designated this portion of SR 152 as a “highest priority” because it is a Major International Trade Highway Route and California Focus Route. The “highest priority” designation recommends implementing improvements to meet minimum facility standards. Since SR 152 is the only direct connection from I-5 to Santa Clara Valley, it is crucial for goods movement between Silicon Valley and connections to the Central Valley and Southern California. SR 152 also provides access to and from San Benito County and Hollister, via a connection with SR 156, and will aid in future economic development in Hollister.

1.2 Purpose

Santa Clara County Valley Transportation Authority (VTA), in collaboration with the Mobility Partnership (Partnership), is developing a range of concepts for the SR 152 New Trade Corridor that best fit the ongoing Phase 1 SR 25/US 101 Interchange Project. The critical components driving the NTC study include the following:

- The movement of goods between the Central Valley and North Central Coast regions of California.
- The corridor as a commuter route between residential areas of the Central Valley and employments centers of the San Francisco and Monterey Bay Areas.
- The corridor's use for general and recreational travel between the North Central Coast area and other regions of California, including the Central Valley, Sierra Nevada, and Southern California.

The purpose of the project, as approved by the Mobility Partnership on December 9, 2020, is to meet existing and projected vehicular transportation needs in California's vital east-west SR 152 corridor to:

- Improve circulation of existing transportation network in San Benito County and Southern Santa Clara County (Study Area).
- Reduce travel time (from US 101 to SR 152/SR 156).
- Enhance regional connectivity between Central Valley and Silicon Valley.
- Enhance safety of transportation network in Project Area.
 - Reduce conflicts for regional travel.
- Enhance goods movement between the Central Valley and North Central Coast regions of California.
- Support economic development in Study Area.
- Improve access to local businesses by redirecting regional traffic.

2. Alternatives

The SR 152 NTC project proposes four alternatives, described below, to satisfy the above improvements. The alternatives comparison detailed in this study identifies the preferred alternatives to proceed with further analysis in the Project Approvals/Environmental Document (PA/ED) phase of this project. The PA/ED phase intends to:

- Provide a continuous four-lane facility between US 101 and remove regional traffic from Gilroy and local roads.
- Upgrade the facility to freeway or expressway standards.
- Improve safety and traffic operations.
- Improve corridor mobility and goods movement.

The eastern limit for each alternative is near the SR 152/156 interchange. Each alternative has a western limit along the proposed SR 25 alignment and continues to the SR 25/US 101 Interchange.

Figure 2.1 details the project study area and alignment locations while **Figures 2.2** through **2.4** provide the proposed typical sections for SR 152, 25, and 152/156.

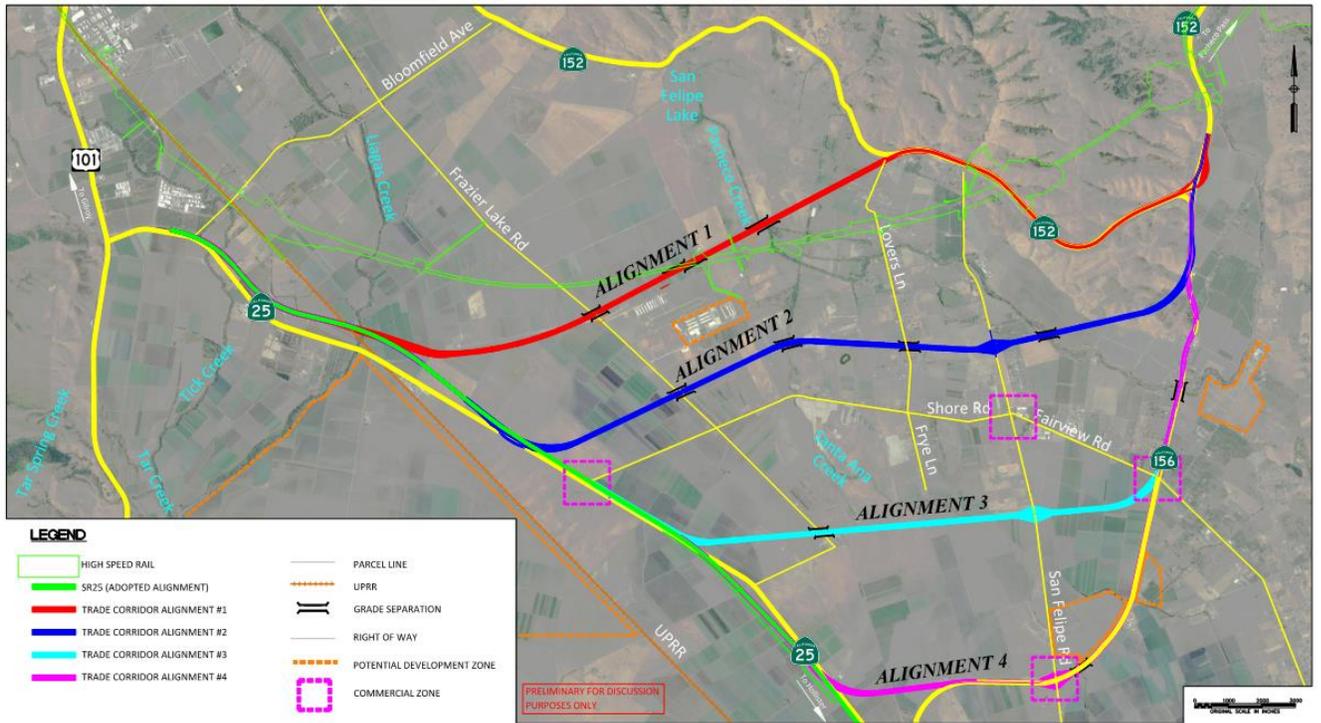


Figure 2.1. Project Alternatives

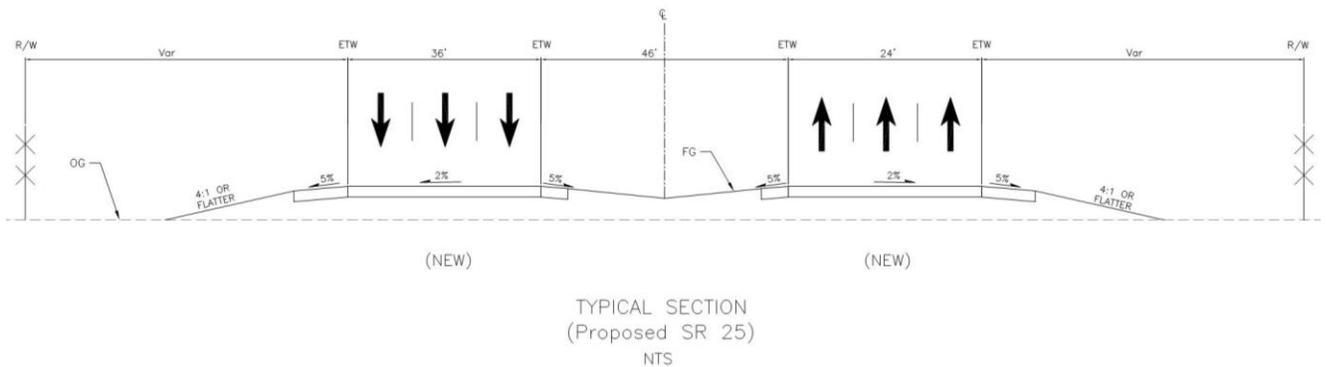


Figure 2.2. Proposed SR 25 Typical Section (West of New Roadway Section)

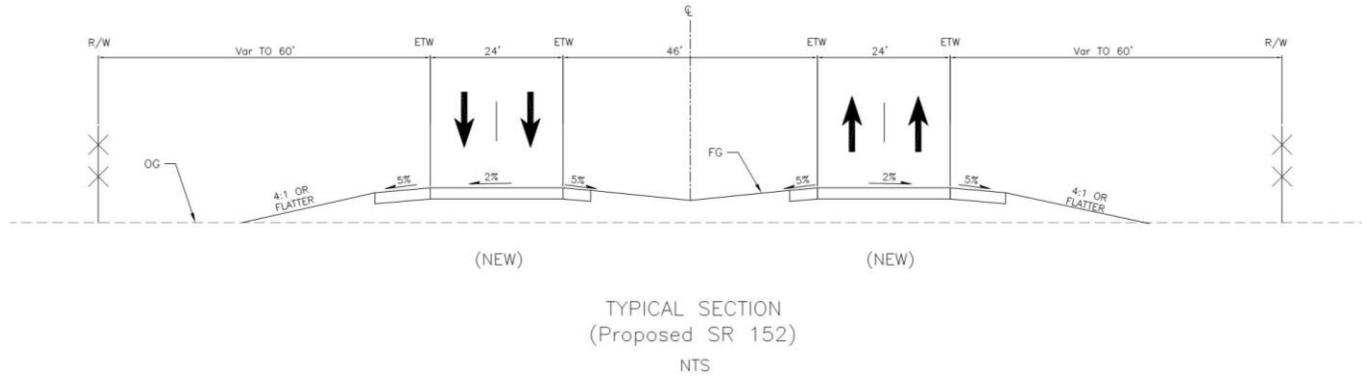


Figure 2.3. Proposed SR 152 NTC Typical Section (New Roadway Section)

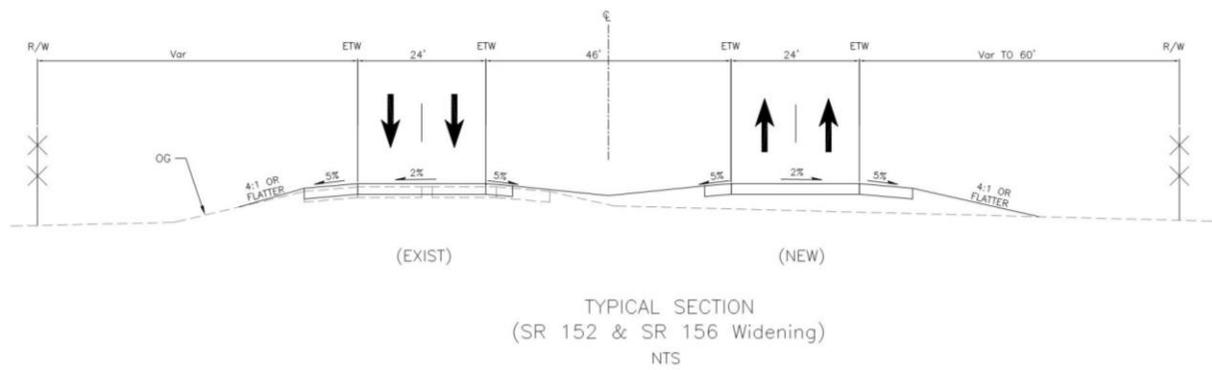


Figure 2.4. Proposed SR 152/156 Widening Typical Section (East of New Roadway Section)

3. Operations

3.1 Travel Time 101/152 to 152/156 ("East-West")

Operations along the SR 152 NTC were analyzed for projected 2040 travel demands from the June 2019 VTA Travel Demand Model. The 2040 analysis relays the percent change in volume from existing facilities (SR 25, 152, 156) to new facilities (the NTC). The analysis was based on the 2040 committed scenario with some background improvements removed to define the No Build network and new alignments coded into alternative networks. Peak hour traffic assignments were modeled to determine the shift in demand for each alternative to the new facilities. There was no corridor specific model calibration for this phase of the project. Instead, a detailed traffic study can begin once the project advances towards the PA/ED phase. **Figures 3.1** and **3.2** identify the critical interchanges for the eastbound and westbound direction: SR 152/156 (A), SR 152/156 (B), and US 101/SR 25 (C).



Figure 3.1. Eastbound Operations



Figure 3.2. Westbound Operations

Each origin and destination (O-D) has five scenarios—the no build scenario and the four alignment alternatives. Commuters mainly travel in the eastbound direction during the PM commute (away from Silicon Valley) and the westbound direction for the AM commute (toward Silicon Valley). The travel time savings for each origin destination is the travel time difference between each alignment and the no build scenario. **Table 3.1** details the travel time savings per alternative.

Table 3.1. Travel Times per Alternative

Origin and Destination	Scenario	Eastbound Travel Times (PM Commute)			
		AM (Min:Sec)	Time Savings (Min:Sec)	PM (Min:Sec)	Time Savings (Min:Sec)
From US 101/SR 152 to SR 152/156 (A) to (B)	No Build	19:31	-	32:18	-
	Alternative 1	13:24	06:07	20:29	11:49
	Alternative 2	13:16	06:15	19:54	12:24
	Alternative 3	14:56	04:35	21:07	11:11
	Alternative 4	15:58	03:33	22:44	09:34
From US 101/SR 25 to SR 152/156 (C) to (B)	No Build	24:33	-	34:42	-
	Alternative 1	10:23	14:10	12:19	22:23
	Alternative 2	10:15	14:18	11:11	23:31
	Alternative 3	11:55	12:38	13:00	21:42
	Alternative 4	12:57	11:36	14:45	19:57

Alternatives Summary Memorandum

Origin and Destination	Scenario	Westbound Travel Times (AM Commute)			
		AM (Min:Sec)	Time Savings (Min:Sec)	PM (Min:Sec)	Time Savings (Min:Sec)
From SR 152/156 to US 101/SR 152 (B) to (A)	No Build	35:48	-	22:16	-
	Alternative 1	20:06	15:42	13:39	08:37
	Alternative 2	19:47	16:01	13:39	08:37
	Alternative 3	21:03	14:45	15:18	06:58
	Alternative 4	22:57	12:51	16:23	05:53
From SR 152/156 to US 101/SR 25 (B) to (C)	No Build	38:49	-	27:54	-
	Alternative 1	12:17	26:32	10:18	17:36
	Alternative 2	11:33	27:16	10:18	17:36
	Alternative 3	13:23	25:26	11:57	15:57
	Alternative 4	15:15	23:34	13:02	14:52

Appendix A shows the scoring based on travel time savings. For the (A) to/from (B) O-D pair during the AM, the maximum travel time savings is 16:01 and the minimum is 3:33. The maximum and minimum time savings were assigned a score of 9 and 2 and scores in-between were interpolated. This approach applies to the other O-D pairs and peak direction combinations. Then, the AM/PM scores were averaged for every alternative in each O-D pair. For example, Alternative 1 for the (A) to (B) O-D was averaged for the AM (5) and PM (8) to obtain a score of 7. Next, scores were averaged in the eastbound and westbound directions for each O-D pair. For example, the eastbound score for Alignment 1 in the (A) to/from (B) O-D pair is 7 while the westbound direction is 7. Averaging these two scores yields a score of 7. The same logic was applied for the (C) to/from (B) O-D pair. Finally, the cumulative scores were obtained from the weighted sum of the two O-D pairs for each alternative. The predominant travel time is from Silicon Valley to Central Valley; therefore, a 70% weight was assigned to the (A) to/from (B) O-D pair while a 30% weight was assigned to the (C) to/from (B) O-D pair. Alternative 1 is therefore the sum of 70% of 7 plus 30% of 6, yielding a final score of 6. The same methodology was applied to the remaining alternatives. Overall, Alternative 2 has the greatest score while Alternative 4 has the smallest.

3.2 Demand Generated by New Trade Corridor (Projected Usage)

The VTA travel demand model for 2040 provides the shift in traffic demand from existing facilities to new facilities via the SR 152 NTC. **Tables 3.2** and **3.3** detail the percent reduction in traffic on the existing SR 152 for each alternative. **Appendix B** provides the methodology on scoring each alternative based on the percent change in demand.

Table 3.2. Westbound SR 152 Traffic Reduction (AM Commute) in 2040

Alternative	Percent Reduction
Alternative 1	34%
Alternative 2	33%
Alternative 3	24%
Alternative 4	20%

Table 3.3. Eastbound SR 152 Traffic Reduction (PM Commute) 2040

Alternative	Percent Reduction
Alternative 1	33%
Alternative 2	37%
Alternative 3	26%
Alternative 4	21%

A greater percent reduction is favorable as more traffic is diverted from existing facilities to new facilities. On average, both Alternatives 1 and 2 provide the greatest percent reduction in traffic on the existing facilities. **Figures 3.1** and **3.2** show the percent change in traffic demand along the SR 152 NTC.

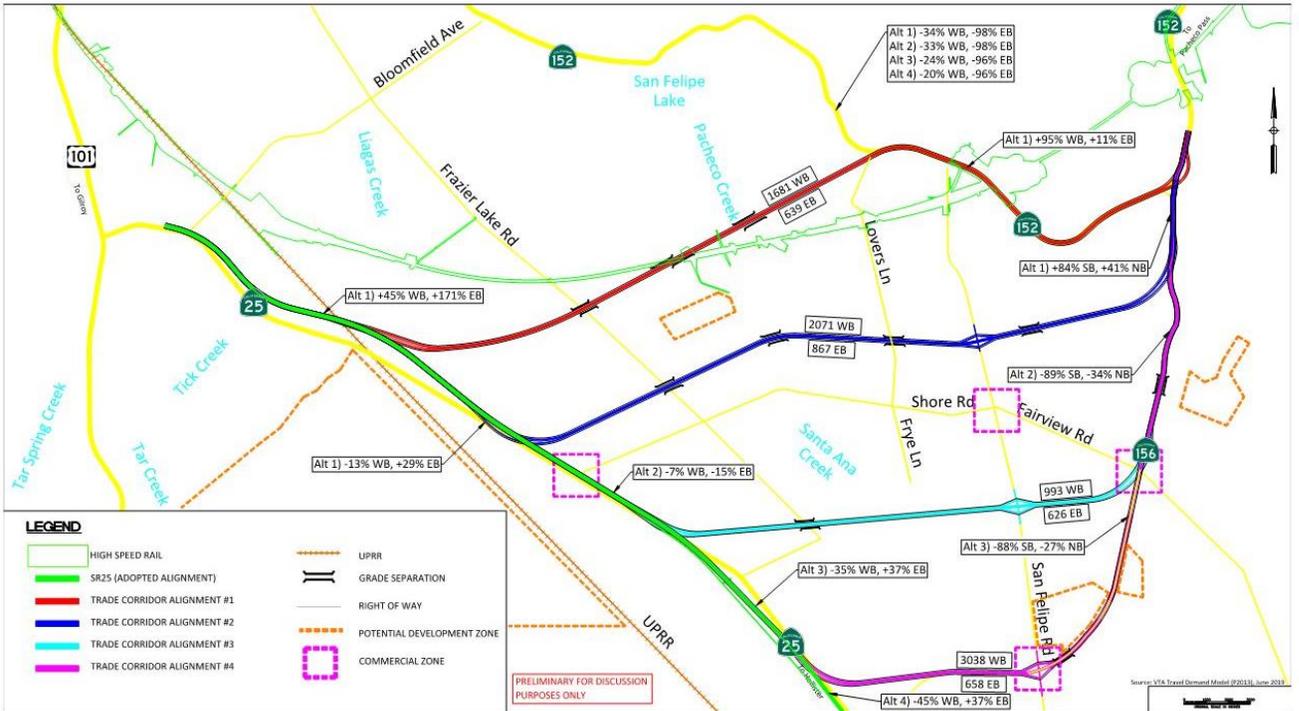


Figure 3.3. Percent Change from No Build Traffic – 2040 AM Peak

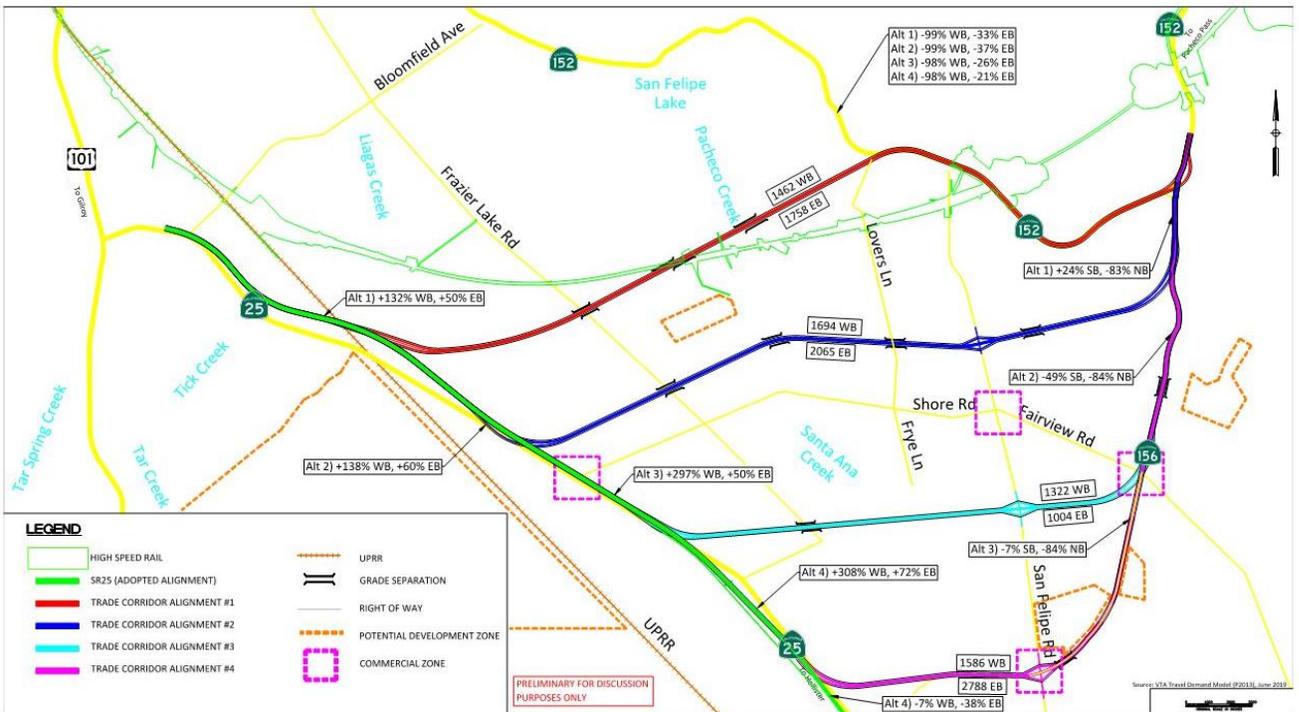


Figure 3.4. Percent Change from No Build Traffic – 2040 PM Peak

4. Facilitates Multimodal/Transit Use

The SR 152 NTC project will facilitate multimodal and transit use throughout Hollister. Bicycle and pedestrian facilities will be integrated during the SR 25 realignment phase to provide more options for travel. Additionally, San Benito County proposed potentially adding mobility hubs to Hollister. This will increase connectivity for various travel modes within the city such as walking, biking, transit, etc., subsequently increasing bus access. The High Speed Rail (HSR) plays an important role in this project due to the proximity of the HSR to these alternatives. Alternative 1 is the closest to the HSR alignment and is ranked the highest for HSR accessibility. Alternative 4, the farthest alternative from the HSR is ranked the lowest.

The NTC is an international corridor and will serve not just those living within the project limits. Users will travel along the corridor for recreational purposes, such as travelling along California or crossing state lines.

Each alternative is scored on how well it facilitates multimodal/transit use based on its proximity to the economic zones. Since a traffic study was not conducted for this project phase, scores are provided qualitatively. Overall, Alternative 4 scores the highest as it intersects through three economic zones. Alternative 1, the farthest alternative from the economic zones, is scored the lowest.

5. Environmental

The overall length of each alternative relates to the environmental impacts; however, certain impacts are similar across all alternatives as discussed in the below sections. **Figure 5.1** displays the streams, wetlands, and wildlife corridor within the project study area.

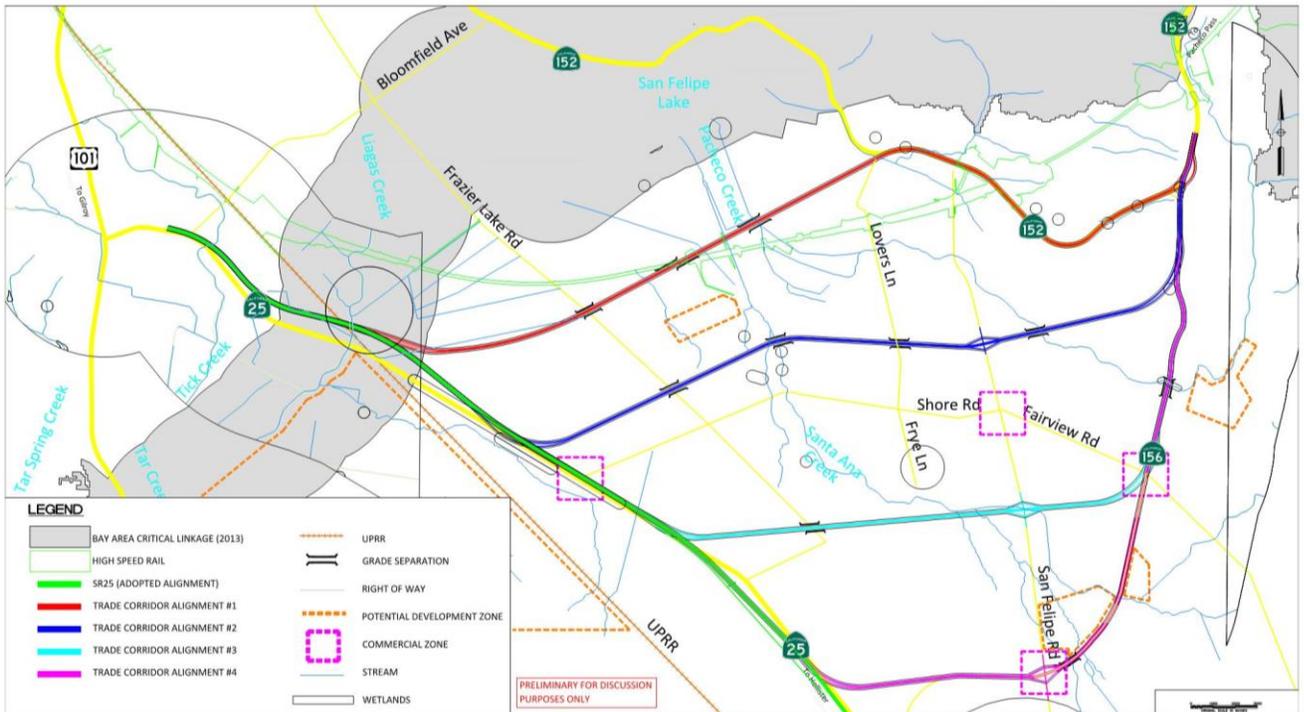


Figure 5.1. Streams, Wetlands, and Wildlife Corridor

5.1 Biological Resources

Biological resources within the proposed project area include occurrences of federal and state listed special-status species, a wildlife movement corridor, wetlands, ponds, and streams, including waters of the US (WOUS) and waters of the State (WOS).

5.1.1 Special-status Species

The California Natural Diversity Database (CNDDDB) was queried and indicated numerous special-status species occurrences within a one-mile buffer area. These species occurrences include the federally threatened California red-legged frog (*Rana draytonii*) (CRLF), California tiger salamander (*Ambystoma californiense*) (CTS), state-threatened tricolored blackbird (*Agelaius tricolor*), and the state species of concern: western pond turtle (*Emys marmorata*) (WPT) and western burrowing owl (*Athene cunicularia*). There are also occurrences of state rare plants including hairless popcorn flower (*Plagiobothrys glaber*) (extirpated), saline clover (*Trifolium hydrophilum*), Hoover’s button celery (*Eryngium aristulatum* var. *hooveri*), and San Joaquin spearscale (*Extriplex joaquinana*). Other federal and state listed special-status species with nearby occurrences outside the one-mile buffer but still have potential to occur within the project area include the Least Bell’s vireo (*Vireo bellii pusillus*) and the San Joaquin kit fox (*Vulpes macrotis mutica*).

Alternatives 1 and 2 will have the highest potential for impacts to special-status species based on previous known occurrences. Alternative 3 will have moderate-high potential impacts and Alternative 4 will have moderate potential impacts. In general, the farther north the proposed alignment is located, the more potential there are for impacts to special-status species. Although the CNDDDB is not a complete inventory of special-status species, it provides a list of species potentially impacted by the project. A field survey is required to determine the habitat suitability for these species within the project area and additional species-specific surveys (e.g., CRLF, CTS) may also be required. See **Figure 5.1** for occurrences of special-status species within a one-mile buffer of the project area.

5.1.2 Wildlife Movement Corridor

Wildlife movement within the project area was evaluated with the previous High Speed Rail wildlife corridor study and the ongoing Southern Santa Cruz Mountains Wildlife Connectivity Study near the SR 25/US 101 interchange. The High Speed Rail study indicates the presence of a primary wildlife movement corridor extending from the southwest to the northeast through the portion of SR 25 located east of the interchange. The Southern Santa Cruz Mountains Wildlife Connectivity Study identified several wildlife species using the area as a crossing corridor, including coyote (*Canis latrans*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), bobcat (*Lynx rufus*), and gray fox (*Urocyon cinereoargenteus*). Because the movement corridor is located within the common areas for all alignments, there are no anticipated differences in wildlife connectivity impacts among the four alternatives. However, there may be other smaller, localized movement corridors associated with other linear aquatic features along the alternative alignments that could be impacted by the proposed project. See **Figure 5.1** for the wildlife movement corridor location.

5.1.3 Wetlands and Streams

The U.S. Geologic Service National Hydrography Dataset (NHD) and U.S. Fish and Wildlife Service National Wetlands Inventory (NWI) databases were queried and numerous aquatic features (i.e., streams, wetlands, ponds) are located throughout the project area that may be impacted by the proposed project. In general, there are more features located in the northern portion of the project area than the southern portion. **Table 5.1** shows the estimated number of stream crossings and potential impact area of wetlands and ponds for each alternative. The data are based on the NHD and NWI and may not accurately reflect the number and size of the aquatic features present within the project area. A field survey will be required to determine the presence and extent of aquatic features. **Figure 5.1** details the streams and wetlands impacted by this project.

Table 5.1. Aquatic Features Impacts Per Alternative¹

Features	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of Stream Crossings	10	3	4	5
Wetlands (Ac)	12.6	0	0	0
Pond (Ac)	0.11	0.4	0.4	0.4

¹ Source: U.S. Geological Survey, 2019, National Hydrography Dataset (Streams). U.S. Fish and Wildlife Service National Wetlands Inventory. 2020 (Wetlands and ponds)

Note. Alternative 1 includes potential impacts to wetlands adjacent to Tick Creek, but Alternatives 2-4 only include potential impacts to aquatic features east of Tick Creek and do not include those impacted by the SR 25 widening.

Table 5.2 provides a summary of the potential impacts to biological resources for each alternative. These estimated impacts are preliminary and may change based on data gathered from field surveys and other studies.

Table 5.2. Biological Resource Impacts per Alternative

Biological Impacts	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Special-status Species	<p>Numerous occurrences of CTS along the alternative.</p> <p>Located within 1 mile of San Felipe Lake and numerous occurrences of federal and state listed species</p>	<p>Numerous occurrences of CTS, CRLF, WPT, burrowing owl and rare plants along western and central portion of the alternative.</p>	<p>One occurrence of CRLF along eastern portion of alternative, one occurrence of tricolored blackbird in central portion, and few occurrences of rare plants along western portion</p>	<p>One occurrence of CRLF along eastern portion of alternative and few occurrences of rare plants along western portion of the alternative</p>
Wildlife Movement	<p>The primary wildlife movement corridor within the project area is located west of this proposed alignment and any impacts to it resulting from the project is not expected to differ among the alternatives.</p>			
Aquatic Features	<p>This alternative will cross numerous (10) named and unnamed streams, wetlands, and ponds.</p>	<p>This alternative will cross some (3) named and unnamed streams. Although NWI did not indicate the presence of wetlands within the proposed alignment, there may be wetlands present.</p>	<p>This alternative will cross some (4) named and unnamed streams. Although NWI did not indicate the presence of wetlands within the proposed alignment, there may be wetlands present.</p>	<p>This alternative will cross some (5) named and unnamed streams. Although NWI did not indicate the presence of wetlands within the proposed alignment, there may be wetlands present.</p>
Qualitative Impacts Scoring	High	High	Moderate/High	Moderate

5.1.4 Agricultural

The SR 152 New Trade Corridor Alternatives 1 and 2 are similar as they predominately cross agricultural land. Although Alternatives 3 and 4 disturb more parcels, they affect less agricultural area because they also disturb non-agricultural parcels. **Figure 5.2** shows all parcels (agricultural and non-agricultural) impacted per alternative.

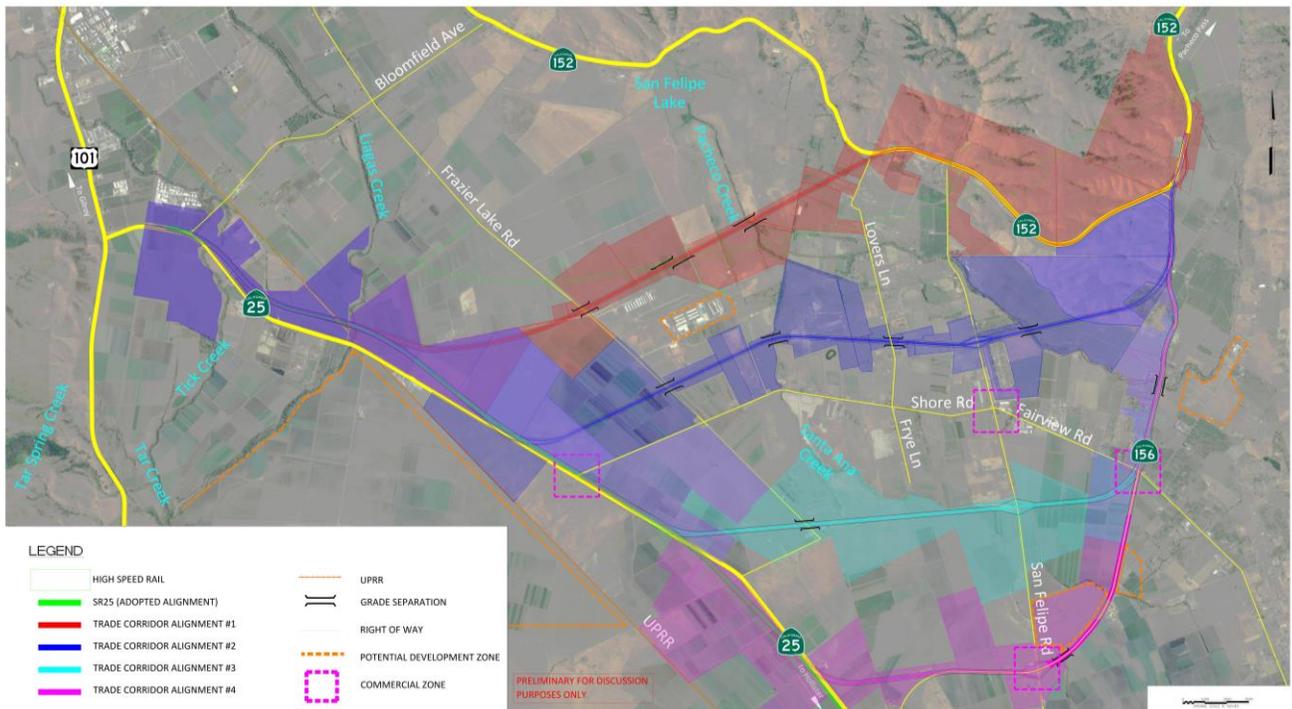


Figure 5.2. Parcels Impacted per Alternative

Impacted parcels are still usable if the alternative leaves most of the parcel area intact. In some cases, an alternative may split a parcel almost evenly. These bisected parcels are agriculturally useable but may pose access issues to farmers. **Table 5.3** details the number of agricultural parcels bisected per alternative. Alternative 1 has the greatest number of bisected parcels whereas Alternatives 2 through 4 have fewer and similar number of bisected parcels (e.g., 3-5).

Table 5.3. Agricultural Parcels Bisected per Alternative

Parcels Disturbed	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of Bisected Parcels	11	5	3	4

Table 5.4 summarizes the total agricultural acres impacted by each alternative. Since SR 25 will be constructed before the new trade corridor, the data was split between the NTC’s original four lanes and SR 25’s additional two lanes. Some parcels are impacted more heavily than others. For example, Alternative 1 passes through the parcels between SR 25 and Frazier Lake Road and divides the slivers north of Alternative 1 from the remaining parcels. The areas are unusable for agricultural land and were

included as parcel remnants. Overall, Alternative 1 impacts the most agricultural area while Alternative 4 impacts the least.

Table 5.4. Overall Acres Impacted per Alternative

Acres Impacted	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Combined New Trade Corridor / SR 25 - Additional 2 Lanes (Ac)	6.8	10.2	13.0	16.9
New Trade Corridor - 4 Lanes (Ac)	111.8	172.0	121.9	31.2
SR 152 or SR 156 (Ac)	65.0	11.8	18.2	70.5
Parcel Remnants (Ac)	108.3	12.9	11.6	31.8
Subtotal Agriculture (Ac)	291.9	206.9	164.7	150.4
Non-agriculture (Ac)	0	0	28.8	28.1
Total Acreage Impacted (Ac)	291.9	206.9	193.5	178.5

Alternative 1 is important as the eastern portion removes the access road connecting SR 25 and Frazier Lake Airpark. To mitigate access issues, a frontage road must be developed to provide access to and from the properties cut off from Alternative 1. A new access road, just west of Frazier Lake Road, should also be built to provide modified access to the airpark.

5.2 Floodplain

The floodplain encompasses the northern portion of the SR 152 New Trade Corridor study area. **Figure 5.3** depicts the alternatives affected by the floodplain.

Alternatives Summary Memorandum

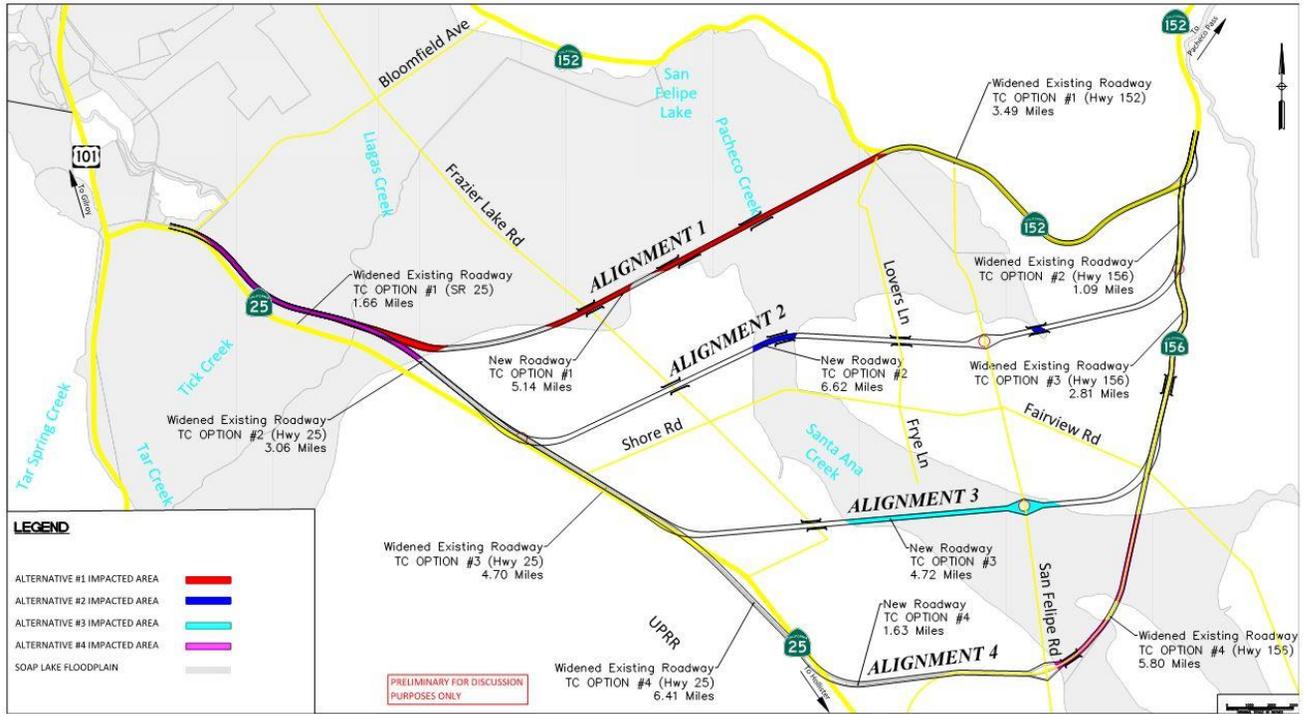


Figure 5.3. Flood Zone Plan

Table 5.5 summarizes the total floodplain impacted area per alternative.

Table 5.5. Floodplain Impacted Area per Alternative

Parcels	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Segment Length (mi)	10.3	10.8	12.2	13.8
Length of Alternative in Floodplain (mi)	5.3	2.8	4.1	3.7
% Alternative in Floodplain	52%	26%	33%	27%
Floodplain Impacted Area (Ac)	152	72	112	96

Alternative 1 has the greatest floodplain impacted area since it is the closest alternative to the floodplain epicenter. The floodplain area shrinks south of Alternative 1 and impacts Alternatives 2, 3, and 4 less than Alternative 1.

6. Community Impacts

6.1 Right of Way (Non-Agricultural)

While the New Trade Corridor Alternatives 1 and 2 primarily affect agriculture land, Alternatives 3 and 4 impact a mix of agricultural and non-agricultural areas. Most of the non-agricultural parcels in the study area are either residential areas or commercial businesses. Alternatives 3 and 4 impact the non-agricultural parcels near Fairview Road and SR 156 while Alternative 2 affects the residential area along 4 Corners Drive and Dunnville Way.

Non-agricultural areas are more sensitive than agricultural areas to the NTC impacts. Unlike agricultural areas, residential areas are more sensitive to dust and noise as these externalities can infiltrate residents’ homes and disturb their property. Residents may issue complaints if construction is prolonged and disruptive. Since SR 156 will be widened by Alternatives 3 and 4, driveways leading to residential properties may be temporarily or permanently removed. To rectify access issues, new frontage roads may be constructed to provide access to and from SR 156 and residential properties.

6.2 Construction

Table 6.1 outlines the major construction differences between each alternative.

Table 6.1. Construction Impacts per Alternative

Construction	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of Interchanges	0	1	1	1
Number of Grade Separations	3	4	1	1
Length of Widening (mi)	3.5	1.0	2.8	4.9
Total Route (mi)	10.3	10.8	12.2	13.8

Construction along the NTC will result in externalities around the surrounding vicinity, namely from dust, water, staging, and increased traffic. Since Alternative 1 is the only alternative to cross the HSR alignment, both project authorities will need to communicate to ensure the grade separation satisfies both projects’ needs. Construction from the proposed interchange at Alternative 2 will impact the residential area along 4 Corners Drive and Dunnville Way. Due to the proximity of the proposed interchange to the residential area, residents may need to detour to other streets if adjacent areas are cordoned off during construction. Alternatives 1 and 2 are approximately equidistant from the Frazier Lake Airpark and will similarly cause disruptions during construction. Overall, a greater number of infrastructure improvements from each alternative results in more disruptions to the surrounding environment.

Alternatives near airplane fly zones are constrained by height restrictions. Since Alternative 4 is just north of the Hollister Muni Airport, it must be designed as an undercrossing to accommodate the geometric height constraints outlined by the Federal Aviation Administration (FAA) for fly zone areas. Constructing an undercrossing is more expensive than constructing an overcrossing and increases the overall cost of Alternative 4.

Traffic impacts also differ per alternative and depend on the number of detours needed between SR 25 and SR 152. The number of detours depend on the number of county roads disturbed by each alternative and the amount of widening for SR 25, SR 152, and SR 156. Detours may also occur as streets are cordoned to provide construction equipment access to and from the project site. **Table 6.2** details the anticipated number of roads that may be impacted per alternative.

Table 6.2. Estimated Number of Roads Impacted per Alternative

Roads Impacted	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Local Roads	8	10	10	12
Driveway	13	14	18	19
Frontage Roads / Local Access Roads	36	49	58	58
Total Roads Impacted	57	73	86	89

Alternatives 3 and 4 anticipate the greatest number of roads impacted, while Alternative 1 anticipates the least. Overall, all alternatives will impact frontage roads/local access roads the most and local roads the least.

7. Access to Economic Center

The SR 152 New Trade Corridor project highlights four economic centers to be developed. The economic centers, proposed by San Benito County, are at the junctions of Fairview/San Felipe Road, Fairview/SR 156, Shore Road/SR 25, and San Felipe Road/SR 156. The economic zones are planned to include mostly industrial or manufacturing facilities. Alternatives 3 and 4 will equally affect the Shore Road/SR 25 economic zone as the alignments overlap for this portion of SR 25. Alternatives 3 and 4 also affect the Fairview Road/SR 156 economic center but to different degrees. The effects depend on the type of facilities built within proposed development. Alternative 4 provides direct access to the San Felipe Road/SR 156 economic center via the proposed interchange. Alternatives 2 and 3 affect the Fairview/San Felipe Road economic center due to the proximity of both alignments to the economic zone. Both alternatives provide direct access to the economic center via an interchange.

8. Community Acceptance

Stakeholders were asked about the purpose and need of the project, the evaluation criteria, and route preference. The following are the key takeaways from the information received:

- Stakeholders reached no consensus on a single alternative to proceed for further analysis in the PA/ED phase.
- Stakeholders agreed Alternatives 2 and 3 were the most preferable.
- Alternative 1 was rated the second lowest.
 - Most stakeholders were concerned about the proximity of Alternative 1 to the existing SR 152 alignment.
 - Stakeholders agreed Alternative 1 will not facilitate much economic development within San Benito County, which was a goal for this project.
- Alternative 4 was rated the lowest.
 - Stakeholders decided the alternative was too far south to benefit those using it.
 - The alternative is too close to the existing SR 25/SR 156 interchange.

9. Potential for Tolling to Fund Public Private Partnership (P3) Approach

Funding for this project depends on expected future toll revenue. Reduced and reliable travel times are key factors for generating toll revenue. For this planning document, new facilities are assumed to provide improved safety, improved geometrics, and a consistent user base. Costs and revenue vary for each alternative and are used to indicate the potential for tolling as a revenue source. A revenue study was not performed during this phase. However, potential revenue generation from each alternative will depend on the following factors:

1. The amount of traffic diverted from the existing SR 152 to the proposed alternatives
2. The safety and overall traffic conditions along the “free route”
3. The type of users and their perception of the value of time savings
4. The implemented toll rate
5. The convenience of using the toll road. For example, a cashless non-stop toll road (using electronic toll tags and a toll gantry) would be more attractive than toll plaza with toll booths and stop/go traffic configuration.
6. The implementation or lack of truck restrictions on the existing SR 152

The percent change in demand for each alternative, shown in **Section 3.2**, varies based on the toll rate implemented. The higher the toll rate, the less traffic is diverted from the existing SR 152 to the NTC. Therefore, the potential revenue varies based on the amount of diversion and the toll rate charged.

As mentioned in **Section 3.1**, **Appendix A** provides the travel times savings and related scoring for each alternative.

10. Other Considerations

10.1 Access to HSR from Central Valley

Alternative 1 is the shortest route and has best access to Gilroy via the HSR. Conversely, Alternative 4 is the farthest from the HSR and is subsequently the least accessible alternative. Alternative 1 also has the best access to the HSR maintenance yard which opens near US 101/SR 25 and Bloomfield Avenue.

10.2 Safety

For the purposes of this study, safety was assumed to improve equally across all alternatives. Caltrans and/or industry standards will be applied to all alternatives and each alternative will result in a safer facility.

10.3 Cost

Table 10.1 provides planning level estimates of probable costs for this project and are intended for comparison purposes only. Refer to **Appendix C** for an expanded list of costs. Detailed project estimates will be developed during future phases of the project.

Table 10.1. Cost per Alternative

Cost	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Grand Total	\$490,000,000	\$540,000,000	\$515,000,000	\$560,000,000

10.4 Other Economic Development

An area for potential economic activity is at the Frazier Lake Airpark, The Airpark serves as a land/water runway for public use and may experience heavier traffic when the surrounding economic zones are developed.

10.5 Ability to Meet Geometric Standards

Another crucial consideration is the geometric approvability for Alternative 4. This alternative provides direct freeway-to-freeway connections in all directions between SR 25/SR 152 and SR 156. However, Alternative 4 poses several design issues/exceptions that will make obtaining Caltrans and FAA approvals difficult. The design issues are summarized below:

- As mentioned in **Section 6.2**, Alternative 4 lies within the Hollister Muni Airport fly zone and violates the FAA height restrictions. The alternative will require further analysis and approval for a design exception from the FAA.
 - Any portion of the alternative within the fly zone must be constructed as an undercrossing (trench or tunnel), which significantly increases the cost of the alternative. The undercrossing also poses groundwater challenges and necessitates continuous dewatering/pump stations to deal with water discharge.
- Alternative 4 converts the existing SR 25/SR 156 intersection to a local interchange which does not satisfy the minimum weave distance between a local interchange and the new system-to-system interchange (SR 152/SR 25/SR 156 interchange). Similarly, the converted local interchange at San Felipe Road/SR 156 does not satisfy the minimum weave distance to the new freeway-to-freeway interchange.
- If the existing SR 25/SR 156 intersection is grade separated but does not provide ramp access, the truck traffic generated by the adjacent quarry must travel to SR 156 or SR 25/SR 152 via San Felipe Road. Therefore, this negatively impacts the local community along San Felipe Road.
- Most traffic from SR 25 to Hollister utilizes San Felipe Road as the main entrance into Hollister rather than exiting along SR 25. The City of Hollister must subsequently update the plans for San Felipe Road to meet expressway standards and limit driveways along both sides of San Felipe Road. If San Felipe Road enters the state highway or expressway system, bike and pedestrian accommodations along San Felipe Road must also be updated.

11. Evaluation Matrix

The evaluation matrices in **Tables 11.1** and **11.2** provide the raw and weighted score for each alternative based on the evaluation characteristic/criteria. The raw scoring was scored within a range of 0 to 10 while the weighted scoring was adjusted by a weighting factor to reach a final, cumulative score out of 100 points. The weighted scoring was obtained by averaging the raw scores for each primary category then adjusting the score by each category’s weighting factor.

Table 11.1. NTC Alternatives Assessment – Raw Scoring

Characteristics/Criteria	Raw Scoring (0 - 10)			
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Operations				
- <i>Travel Time</i>	6	7	5	4
- <i>Demand Generated by NTC (Projected Usage)</i>	6	6	4	2
Facilitates Multimodal/Transit Use	7	7	7	6
Environmental Impacts				
- <i>Wildlife Corridor</i>	2	3	5	7
- <i>Agricultural</i>	3	6	7	8
- <i>Floodplain</i>	5	8	7	8
Community Impacts				
- <i>Right of Way (Non-agricultural)</i>	8	6	4	4
- <i>Construction</i>	7	7	7	6
Access to Economic Centers	4	6	8	9
Community Acceptance	3	5	5	3
Potential for Tolling to Fund P3 Approach	6	7	4	2

Table 11.2. NTC Alternatives Assessment – Weighted Scoring

Characteristics/Criteria	Weighting Factor	Weighted Scoring			
		Alternative 1	Alternative 2	Alternative 3	Alternative 4
Operations	25	15	16	11	8
Facilitates Multimodal/Transit Use	10	7	7	7	6
Environmental Impacts	10	3	6	6	8
Community Impacts	15	11	10	8	8
Access to Economic Centers	15	6	9	12	14
Community Acceptance	15	5	8	8	5
Potential for Tolling to Fund P3 Approach	10	6	7	4	2
Total Possible Points	100	53	62	56	49
Cost	-	\$490M	\$540M	\$515M	\$560M

12. Conclusion & Recommendation

The SR 152 NTC project intends to improve trade and mobility within the San Benito, Los Gatos, and Santa Clara counties. The analysis revealed all alternatives were scored generally the same with no clear best or worst alternative. Nonetheless, Alternative 4 scored the lowest while Alternative 1 scored the second lowest. Alternative 4 is unfavorable because it is the most expensive alternative and has geometric constraints related to the Hollister Muni Airport, just south of the alternative. Land adjacent to the airport is constrained by height restrictions for any inbound and outbound airplanes and could potentially conflict with Alternative 4 development. Alternative 1 was also scored low and poses increased environmental challenges, which will conflict with the next phase of the project (the PA/ED phase).

Therefore, it was recommended, and approved by the MP on December 9, 2020, to eliminate Alternatives 1 and 4 and advance Alternatives 2 and 3 as the most favorable alternatives. Once funding is secured, the project can move into the PA/ED phase to continue further analysis.

Appendix A. Travel Time Savings

Origin and Destination	Scenario	Eastbound						
		AM (Min:Sec)			PM (Min:Sec)			Average AM/PM Score
		Travel Time	Travel Time Savings*	Score	Travel Time	Travel Time Savings	Score	
From US 101/SR 152 to SR 152/156	No Build	19:31	-	-	32:18	-	-	-
	Alt 1	13:24	06:07	5	20:29	11:49	8	7
	Alt 2	13:16	06:15	5	19:54	12:24	9	7
	Alt 3	14:56	04:35	3	21:07	11:11	8	6
	Alt 4	15:58	03:33	2	22:44	09:34	6	4
From US 101/SR 25 to SR 152/156	No Build	24:33	-	-	34:42	-	-	-
	Alt 1	10:23	14:10	4	12:19	22:23	8	6
	Alt 2	10:15	14:18	4	11:11	23:31	9	7
	Alt 3	11:55	12:38	3	13:00	21:42	7	5
	Alt 4	12:57	11:36	2	14:45	19:57	5	4
Origin and Destination	Scenario	Westbound						
		AM			PM			Average AM/PM Score
		Travel Time	Travel Time Savings	Score	Travel Time	Travel Time Savings	Score	
From SR 152/156 to US 101/SR 152	No Build	35:48	-	-	22:16	-	-	-
	Alt 1	20:06	15:42	8	13:39	08:37	5	7
	Alt 2	19:47	16:01	9	13:39	08:37	5	7
	Alt 3	21:03	14:45	7	15:18	06:58	3	5
	Alt 4	22:57	12:51	6	16:23	05:53	2	4
From SR 152/156 to US 101/SR 25	No Build	38:49	-	-	27:57	-	-	-
	Alt 1	12:17	26:32	8	10:18	17:36	4	6
	Alt 2	11:33	27:16	9	10:18	17:36	4	7
	Alt 3	13:23	25:26	7	11:57	15:57	3	5
	Alt 4	15:15	23:34	6	13:02	14:52	2	4
Scoring	Alternative 1	Alternative 2	Alternative 3	Alternative 4				
To/From SR 152/156 and US 101/SR 152	7	7	5	4				
To/From SR 152/156 and US 101/SR 25	6	7	5	4				
Cumulative Score	6	7	5	4				

*Time Saved between No Build vs. NTC

Appendix B. Methodology for Calculating Percent Change

The following sample calculation details the steps to determine a score based off the percent change in travel demand. The calculation will use values from the eastbound direction for SR 152 during the PM commute.

Sample Calculation	Alt 1	Alt 2	Alt 3	Alt 4
Existing SR 152	-33%	-37%	-26%	-21%

A high (40%) and low (20%) range was determined from the sample values with the largest (-37%) and smallest (-21%) magnitudes. Next, a score was assigned to the high and low percentages. A low percent change of 20% was assigned a score of 2 while a high score of 40% was assigned a score of 8. The analysis assumes the potential for higher or lower scores outside the defined range, when future modeling is performed.

Sample Calculation (Alternative 1)

Sample Calculation	Low	High
Percent	20%	40%
Score	2	8

The rate of change in score for every 1 percent was calculated by dividing the difference in scores by the difference in percentages. For example:

$$\text{Rate of change} = \frac{8 - 2}{0.4 - 0.2} = 30$$

Finally, a score was determined by multiplying the rate of change by the difference between the alignment percent change (-33%) and the low percent (20%). The result is added to 2, which is the score assigned to the lowest value (20%).

$$\text{Score} = 30 \times (|-33\%| - |-20\%|) + 2 = 5.9 \approx 6$$

The score above relates to Alternative 1 for the PM eastbound commute hours. The same calculation was performed for the AM westbound commute hours. Then, the two scores were averaged to determine the final score for Alternative 1.

Appendix C. Comparative Cost Estimates per Alternative

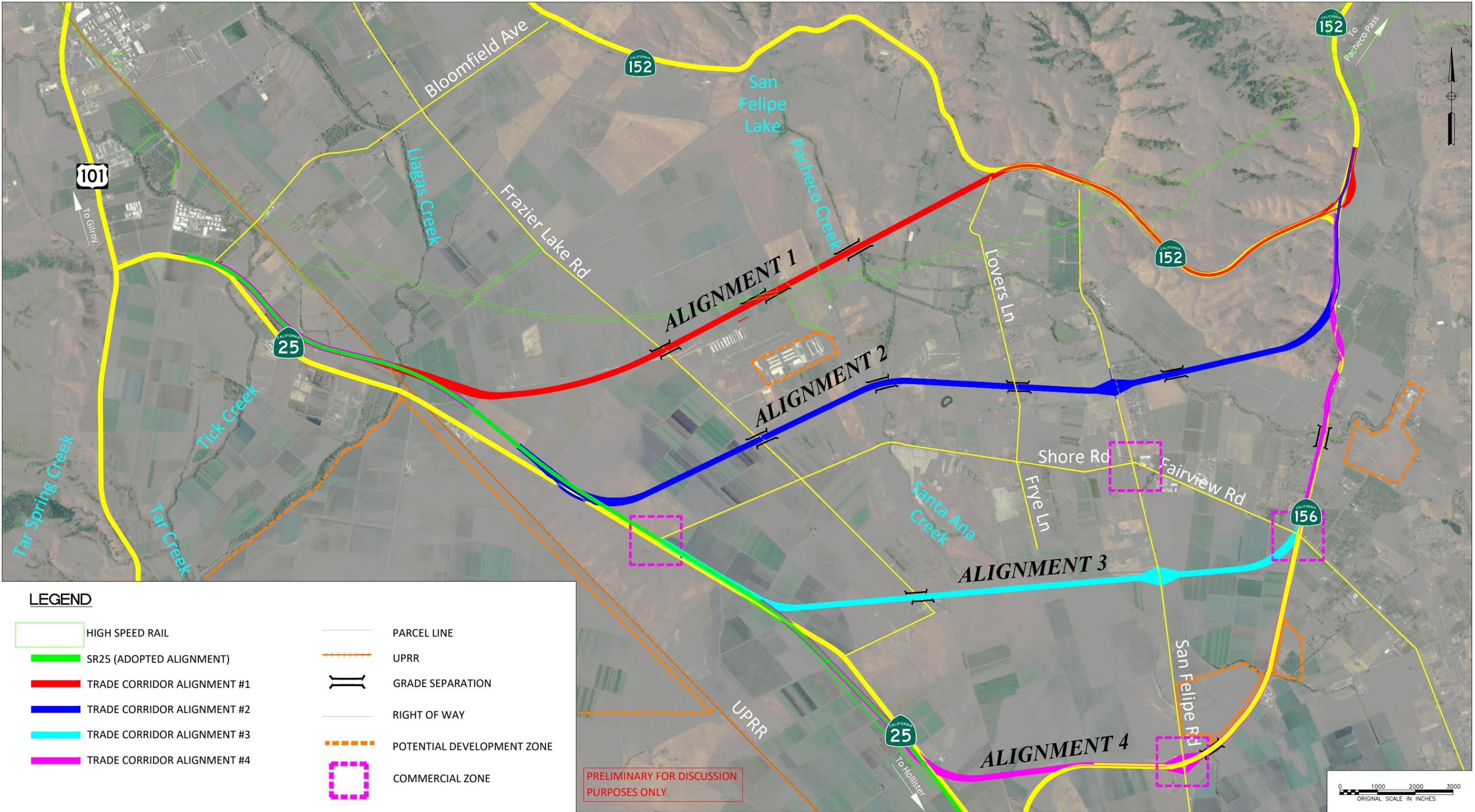
The following table represents comparative estimates of probable cost only. Detailed cost estimates will need to be prepared during ongoing phases of the project. The table does not include any costs associated with financing or development of a P3 for the project.

CONSTRUCTION COST				
Roadway Cost				
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Earthwork	\$53,340,000	\$55,972,000	\$62,960,000	\$71,185,000
Pavement Structural Design	\$46,840,000	\$49,151,000	\$55,288,000	\$62,511,000
Drainage	\$2,250,000	\$2,361,000	\$2,656,000	\$3,002,000
Specialty Items	\$38,947,000	\$40,869,000	\$45,972,000	\$51,977,000
Traffic items	\$5,754,000	\$6,038,000	\$6,792,000	\$7,679,000
Minor Items	\$14,713,000	\$15,439,000	\$17,367,000	\$19,636,000
Roadway Mobilization	\$16,184,000	\$16,983,000	\$19,103,000	\$21,599,000
Roadway Additions	\$16,184,000	\$16,983,000	\$19,103,000	\$21,599,000
Roadway Contingency	\$48,553,000	\$50,949,000	\$57,310,000	\$64,797,000
Structures	\$48,838,000	\$64,433,000	\$34,063,000	\$34,063,000
Structures Contingency	\$12,209,500	\$16,108,250	\$8,515,750	\$8,515,750
Subtotal Roadway Construction Cost	\$303,812,500	\$335,286,250	\$329,129,750	\$366,563,750
Other Project Costs				
Right of Way	\$37,000,000	\$46,000,000	\$36,000,000	\$33,500,000
Preliminary Environmental Mitigation	\$15,000,000	\$10,500,000	\$9,500,000	\$9,000,000
Subtotal Other Project Costs	\$52,000,000	\$56,500,000	\$45,500,000	\$42,500,000
TOTAL CONSTRUCTION COST	\$355,812,500	\$391,786,250	\$374,629,750	\$409,063,750
SOFT COSTS				
Agency Cost (10%)	\$35,581,250	\$39,178,625	\$37,462,975	\$40,906,375
Preliminary Engineering/Environmental (3%)	\$9,114,375	\$10,058,588	\$9,873,893	\$10,996,913
Final Design (12%)	\$42,697,500	\$47,014,350	\$44,955,570	\$49,087,650
Construction Administration (12%)	\$42,697,500	\$47,014,350	\$44,955,570	\$49,087,650
R/W Engineering/Acquisition (10% of ROW Cost)	\$3,700,000	\$4,600,000	\$3,600,000	\$3,350,000
Total Soft Cost	\$133,790,625	\$147,865,913	\$140,848,008	\$153,428,588

Total Project Cost	\$489,603,125	\$539,652,163	\$515,477,758	\$562,492,338
Rounded for Comparison	\$490,000,000	\$540,000,000	\$515,000,000	\$560,000,000

Appendix D. Project Alternatives

(Figure 2.1)



LEGEND

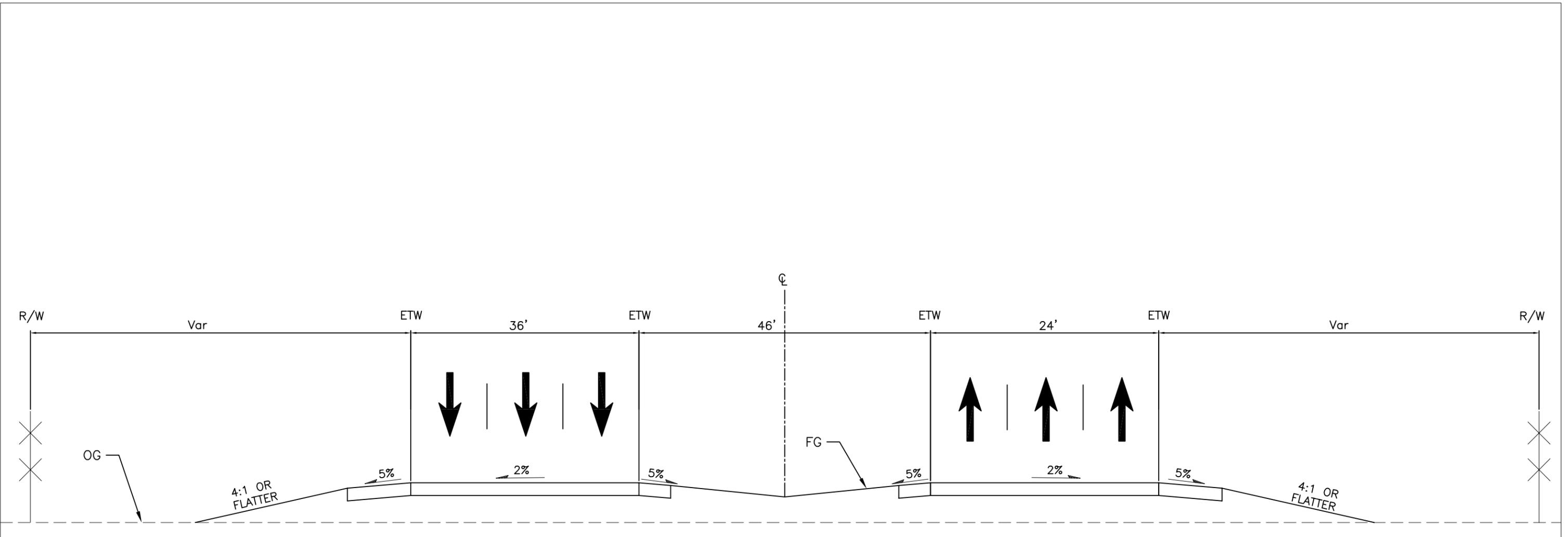
- | | | | |
|--|-----------------------------|---|----------------------------|
|  | HIGH SPEED RAIL |  | PARCEL LINE |
|  | SR25 (ADOPTED ALIGNMENT) |  | UPRR |
|  | TRADE CORRIDOR ALIGNMENT #1 |  | GRADE SEPARATION |
|  | TRADE CORRIDOR ALIGNMENT #2 |  | RIGHT OF WAY |
|  | TRADE CORRIDOR ALIGNMENT #3 |  | POTENTIAL DEVELOPMENT ZONE |
|  | TRADE CORRIDOR ALIGNMENT #4 |  | COMMERCIAL ZONE |

PRELIMINARY FOR DISCUSSION
PURPOSES ONLY



Appendix E. Proposed Typical Sections

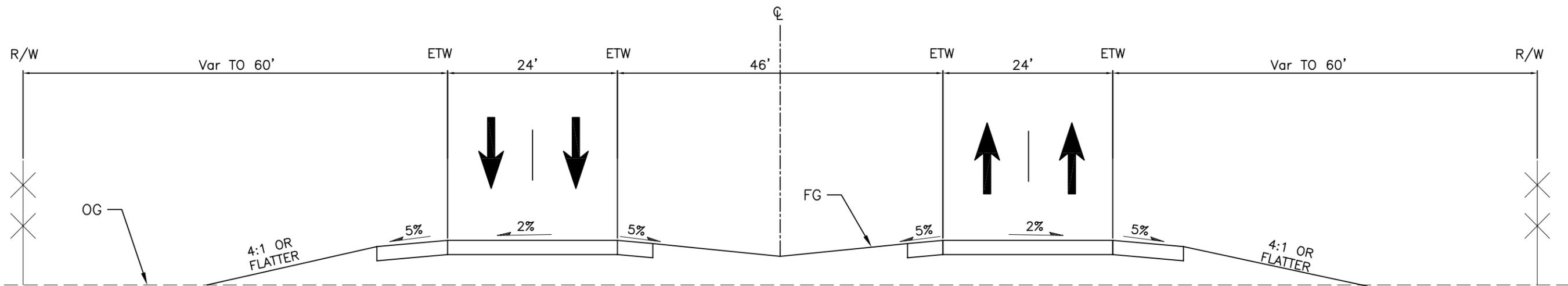
(Figures 2.2, 2.3, 2.4)



(NEW)

(NEW)

TYPICAL SECTION
 (Proposed SR 25)
 NTS

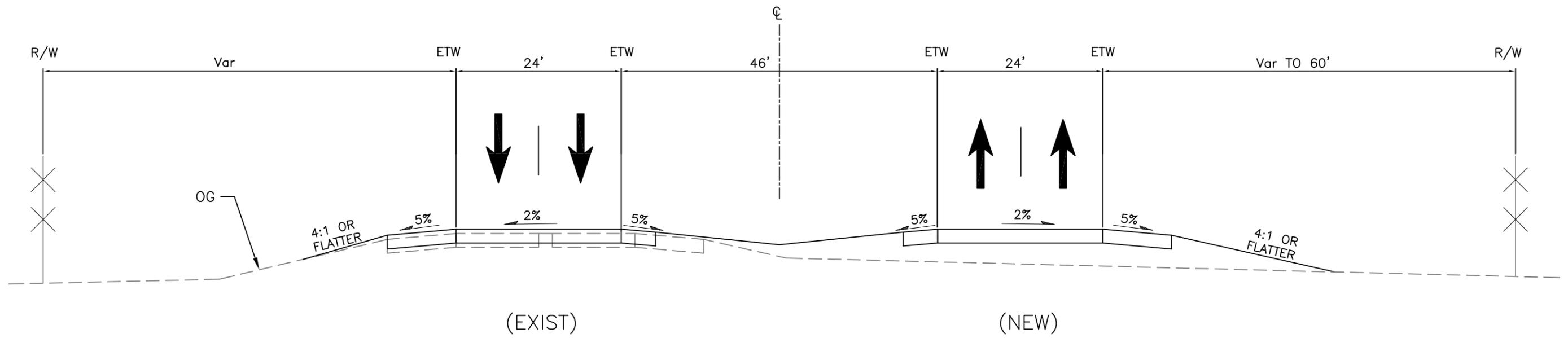


(NEW)

(NEW)

TYPICAL SECTION
(Proposed SR 152)

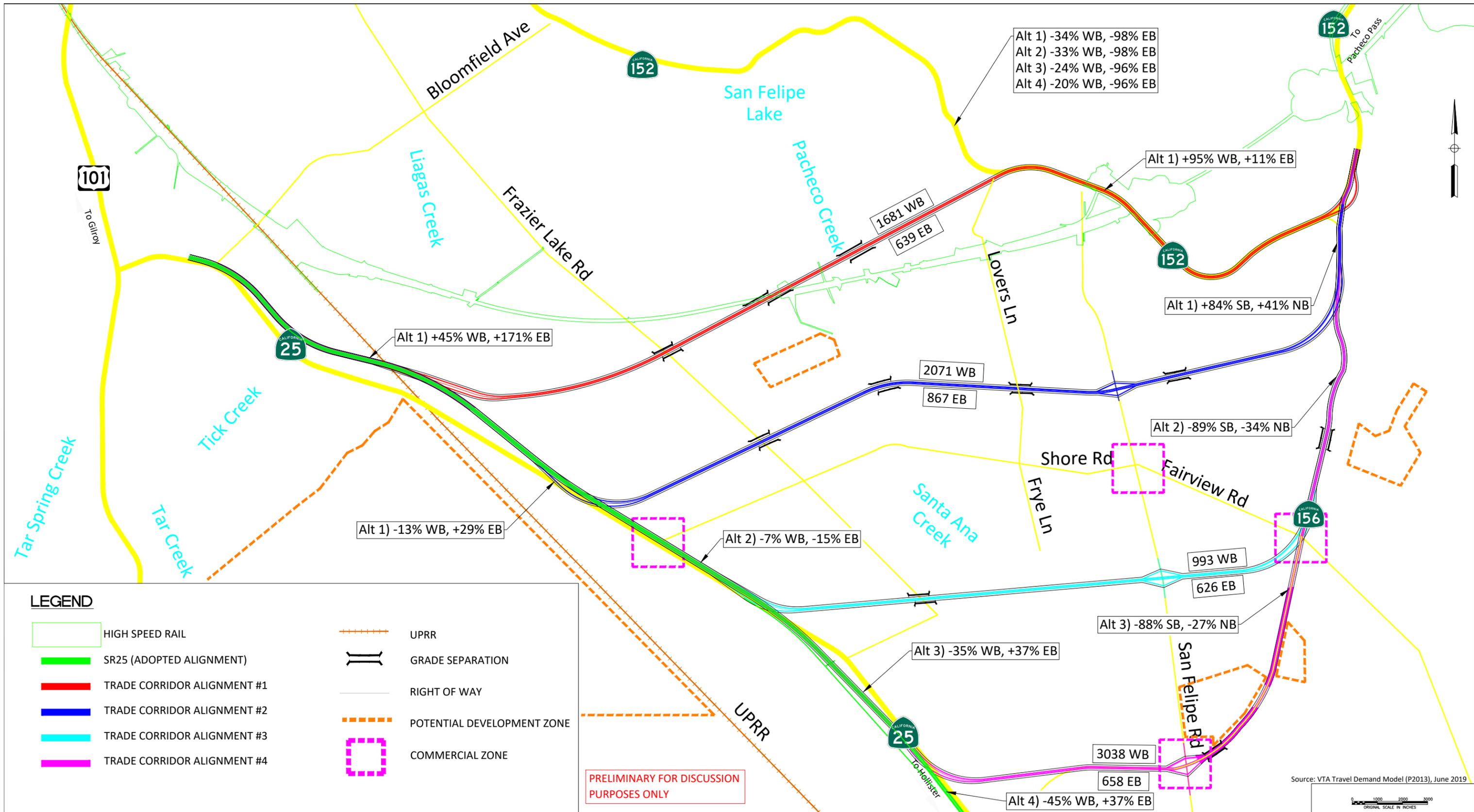
NTS



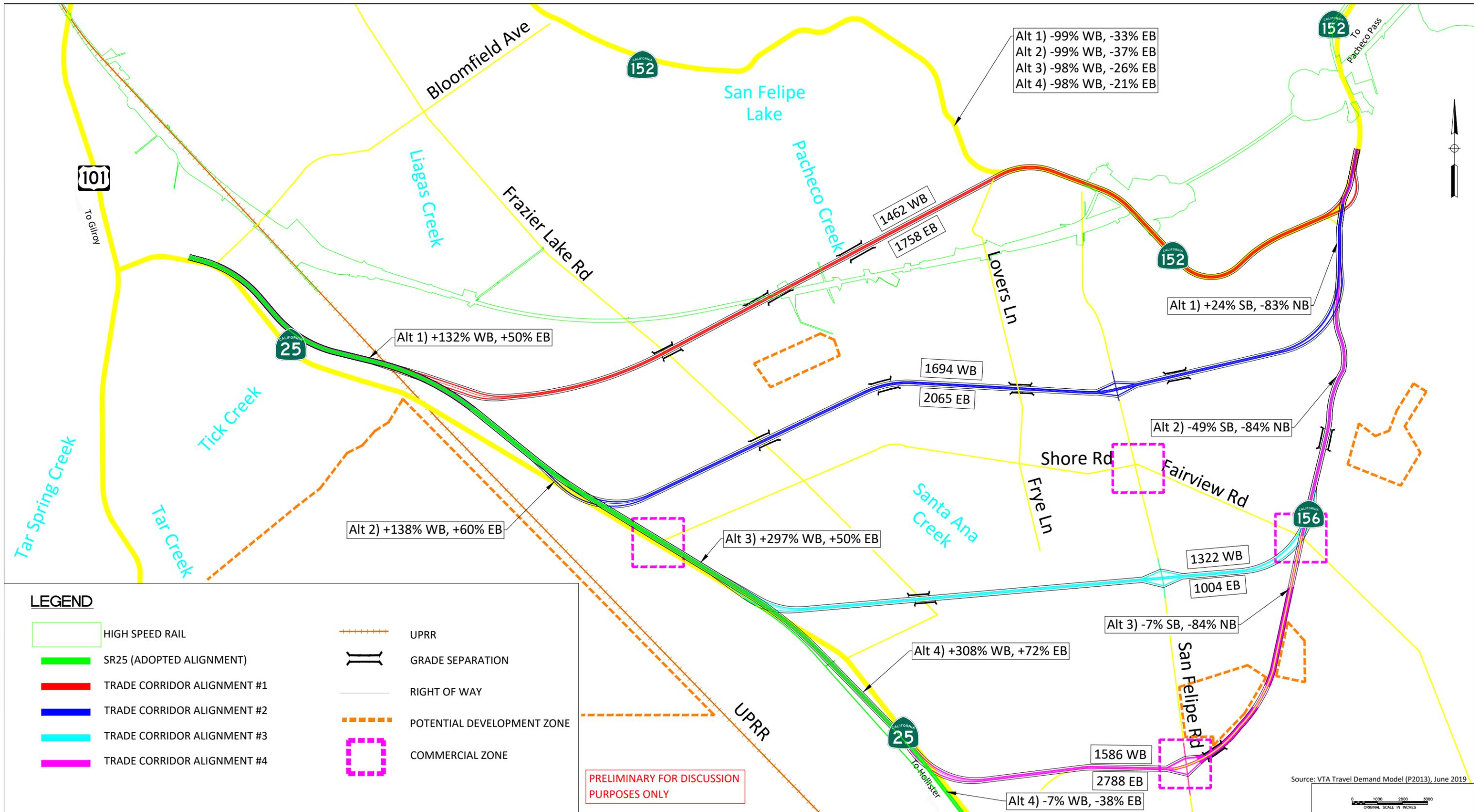
TYPICAL SECTION
 (SR 152 & SR 156 Widening)
 NTS

Appendix F. Percent Change from No Build Traffic

(Figures 3.3, 3.4)



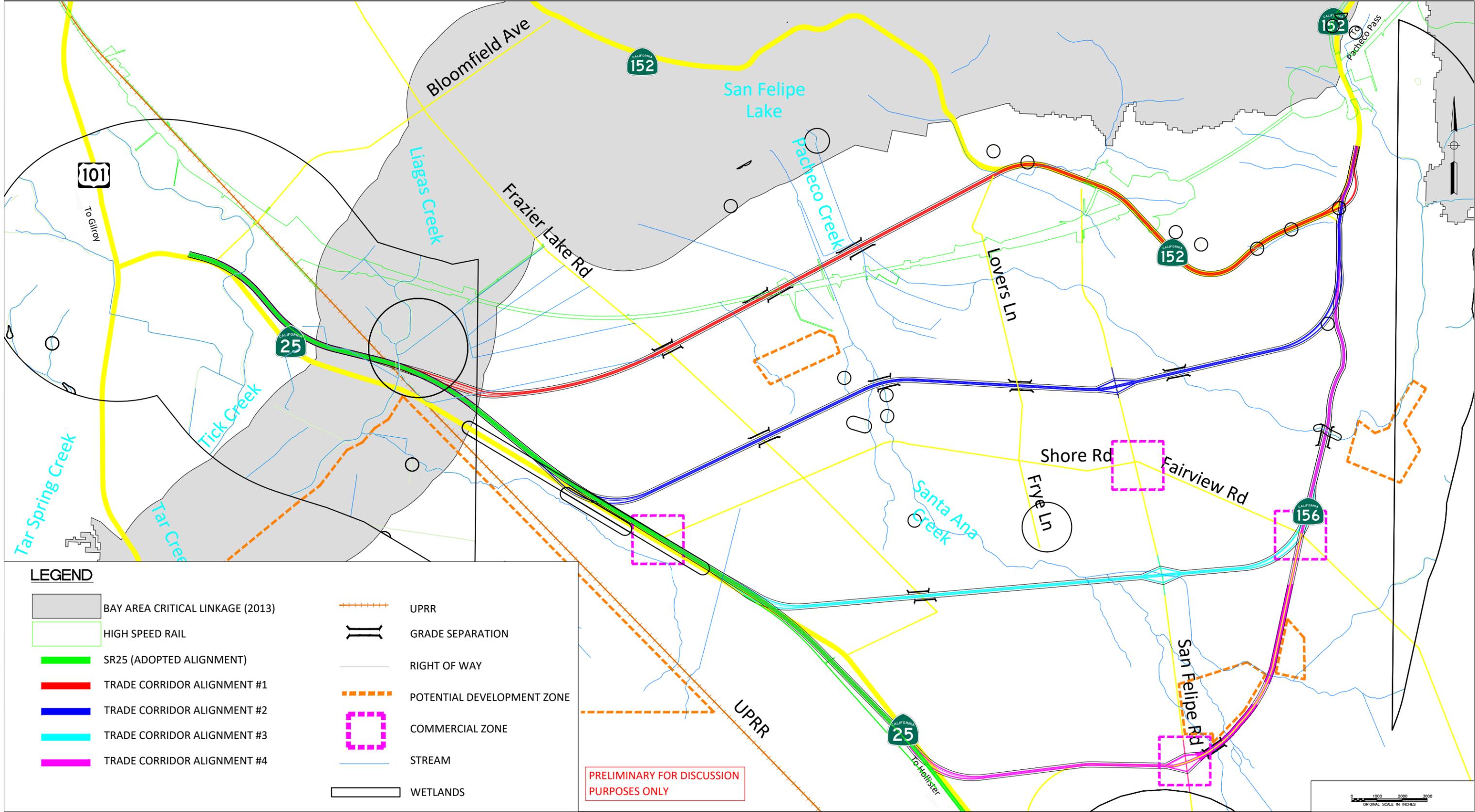
Year 2040 AM Peak



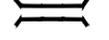
Year 2040 PM Peak

Appendix G. Streams, Wetlands, and Wildlife Corridor

(Figure 5.1)



LEGEND

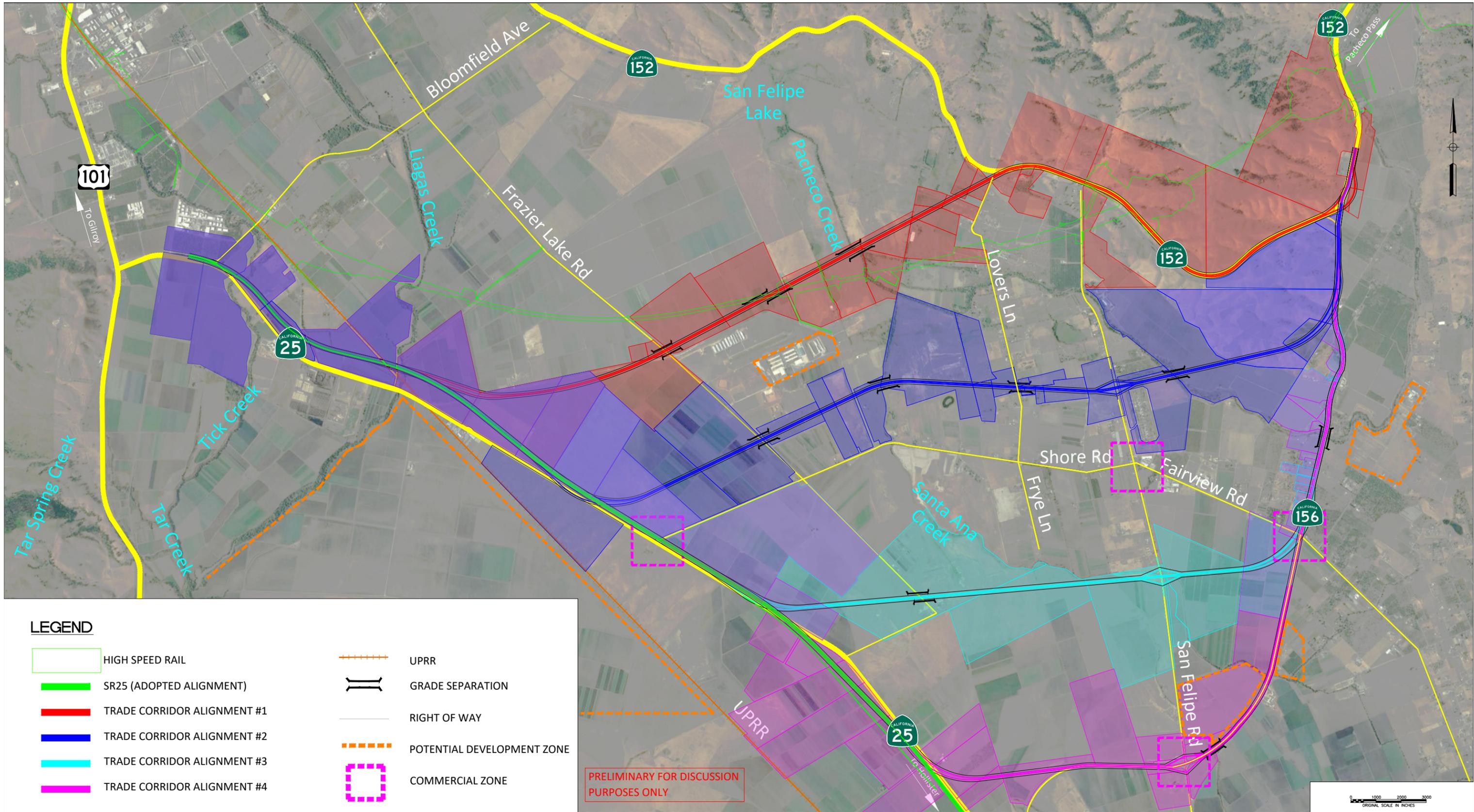
- | | | | |
|--|----------------------------------|---|----------------------------|
|  | BAY AREA CRITICAL LINKAGE (2013) |  | UPRR |
|  | HIGH SPEED RAIL |  | GRADE SEPARATION |
|  | SR25 (ADOPTED ALIGNMENT) |  | RIGHT OF WAY |
|  | TRADE CORRIDOR ALIGNMENT #1 |  | POTENTIAL DEVELOPMENT ZONE |
|  | TRADE CORRIDOR ALIGNMENT #2 |  | COMMERCIAL ZONE |
|  | TRADE CORRIDOR ALIGNMENT #3 |  | STREAM |
|  | TRADE CORRIDOR ALIGNMENT #4 |  | WETLANDS |

PRELIMINARY FOR DISCUSSION
PURPOSES ONLY

0 1000 2000 3000
ORIGINAL SCALE IN INCHES

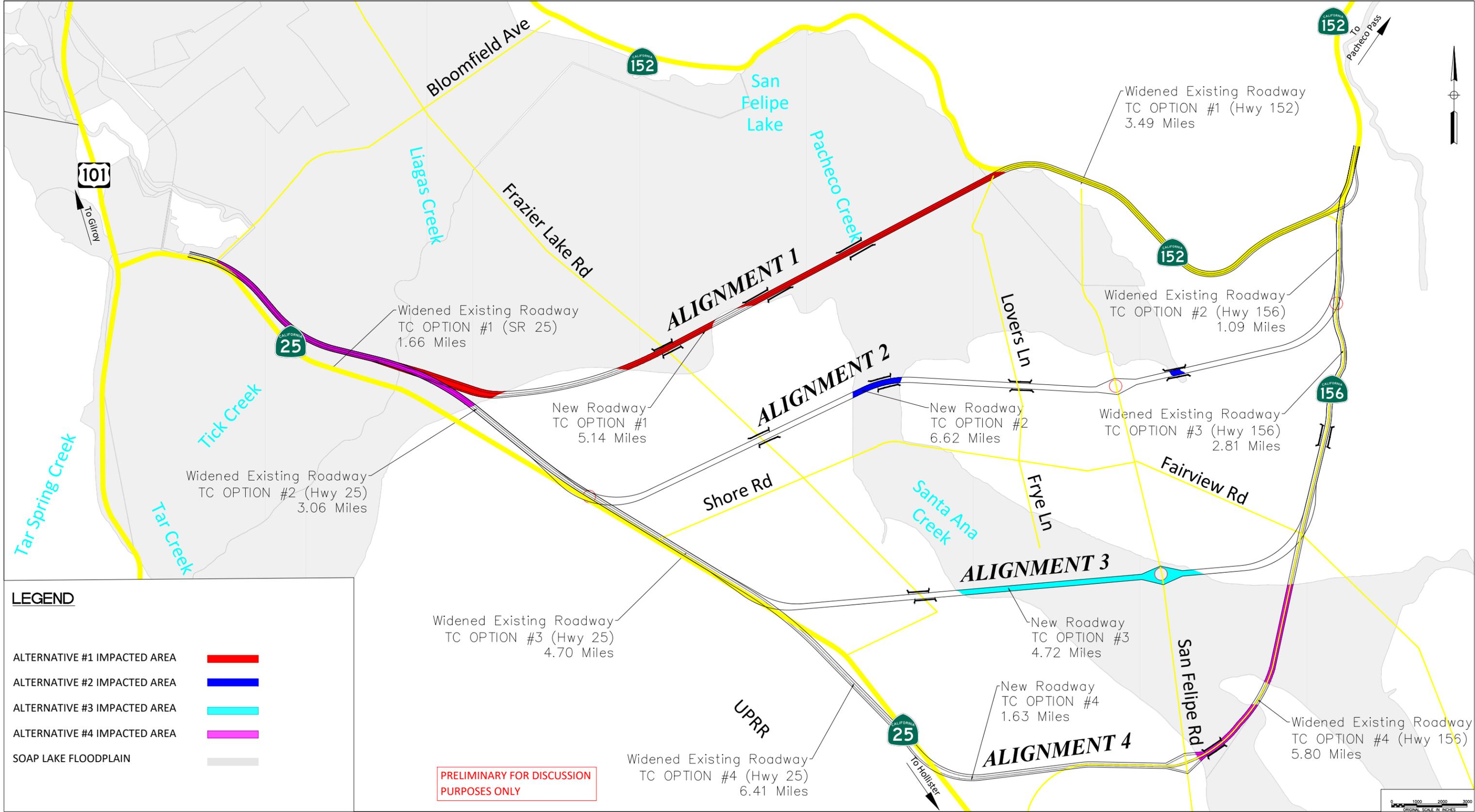
Appendix H. Parcels Impacted per Alternative

(Figure 5.2)



Appendix I. Flood Zone Plan

(Figure 5.3)



Appendix J. Mobility Partnership PowerPoint



Memo on Agenda Item 09
Date: September 9, 2020

TO: Mobility Partnership
FROM: Chris Metzger, Project Manager
SUBJECT: New Trade Corridor Evaluation of Alternatives

ACTION ITEM

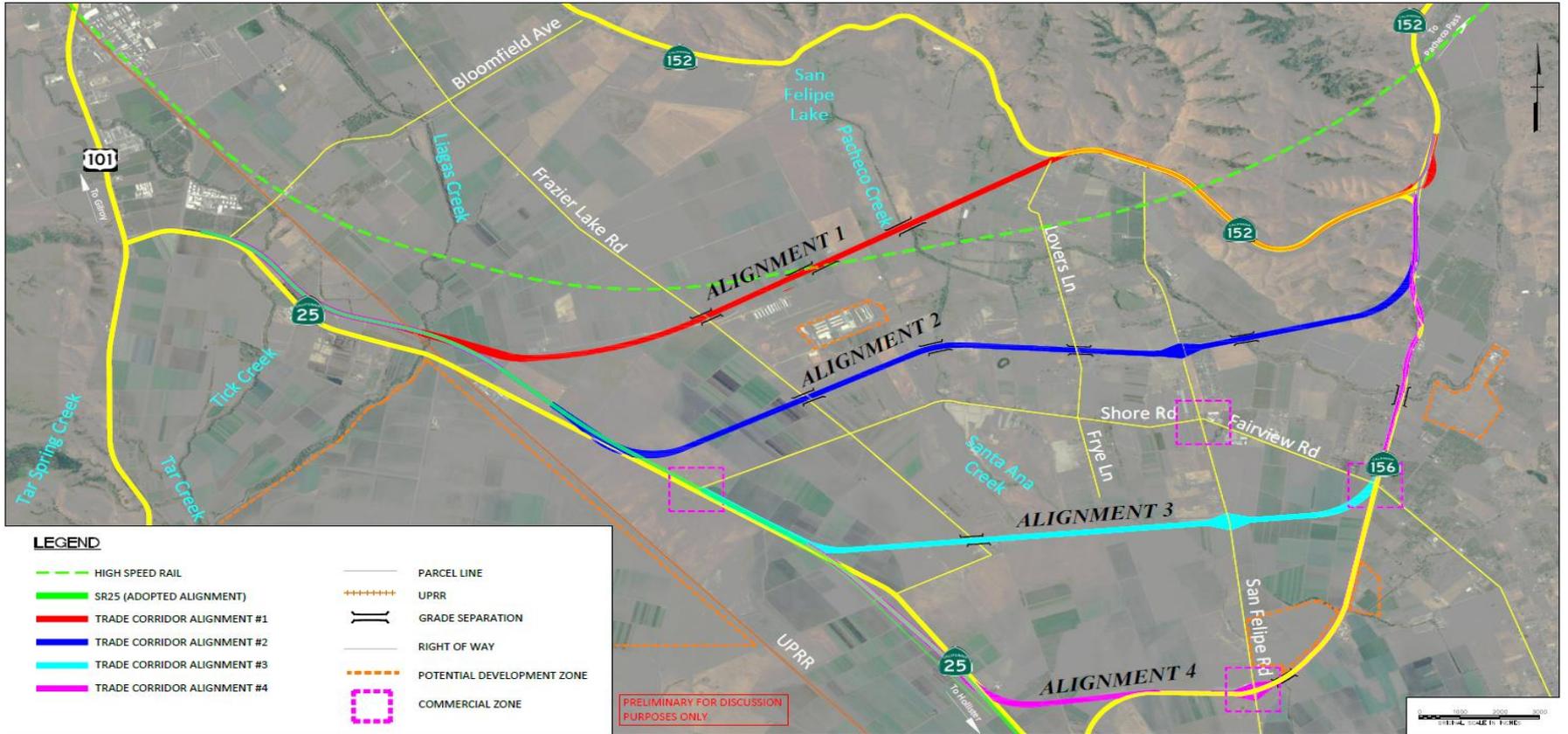
RECOMMENDATION:

Approve recommendation relative to next phase of work and range of alternatives to be considered.

BACKGROUND:

See attached presentation.

New Trade Corridor Alignment Alternatives



New Trade Corridor – Weighting of Evaluation Criteria (approved June 2020)

CHARACTERISTICS/CRITERIA	SCORE
1. Operations	25
1.1 Travel Time 101/152 ↔ 152/156 ("East - West")	
1.1.1 Goods movement between Bay Area/Central Valley	
1.2 Travel Time 101/152 ↔ 25/156 ("North-South")	
1.3 Demand generated by NTC (projected usage)	
1.3.1 Diversion of Existing 152 traffic to NTC	
2. Facilitates multimodal/transit use	10
3A. Environmental Impacts	10
3A.1 Wildlife Corridor	
3A.2 Agricultural	
3A.3 Flood Plain	
3B. Community Impacts	20
3B.1 Right of Way (non-agricultural)	
3B.2 Construction	
4. Benefitting Economic Centers	10
5. Community Acceptance	15
6. Potential for tolling to fund P3 approach	10
Total Possible Points	100

Notes:

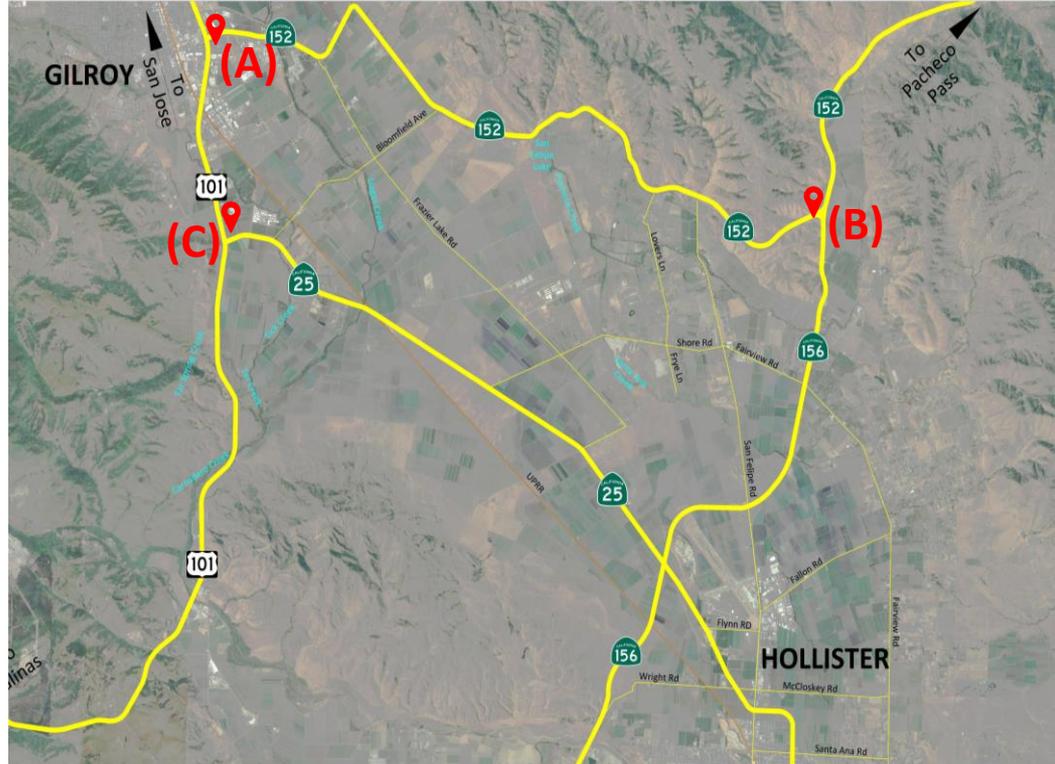
- HSR Access, Safety and Cost were removed from weighted scoring.
- HSR Access is directly related to travel time (item 1.1).
- Safety will be addressed to same level for all Alternatives.
- Cost will be shown independent of scoring.



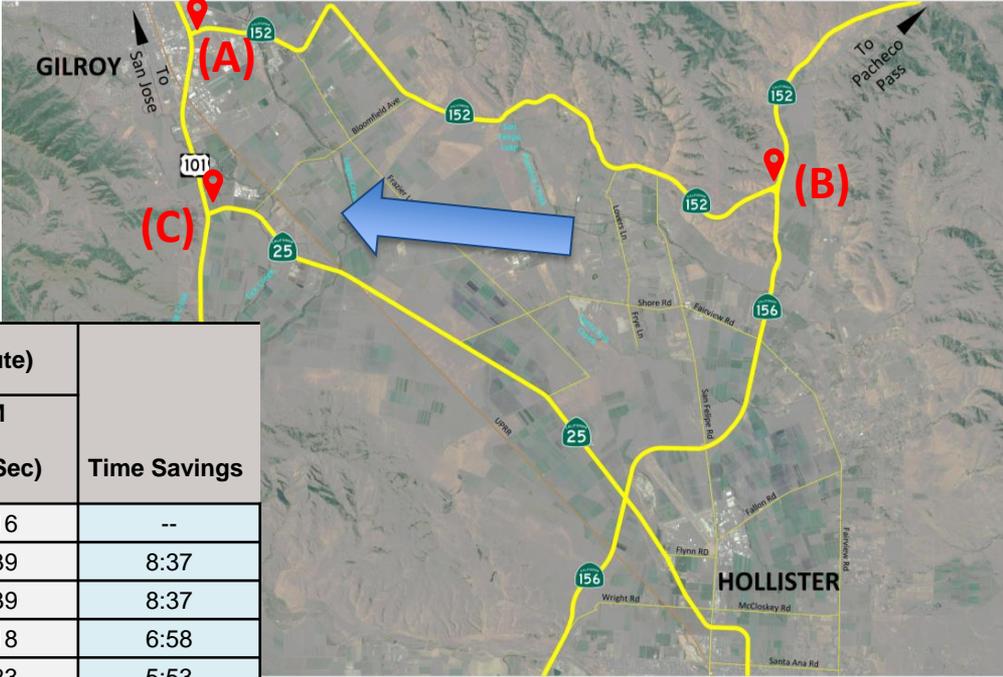
1. Operations

Reviewed Travel time for following trips:

- Between US 101/SR 152 to SR 152/SR 156 (A) \Leftrightarrow (B)
(Westbound and Eastbound a.m. and p.m.)
- US 101/SR 25 to SR 152/ SR 156 (C) to (B)

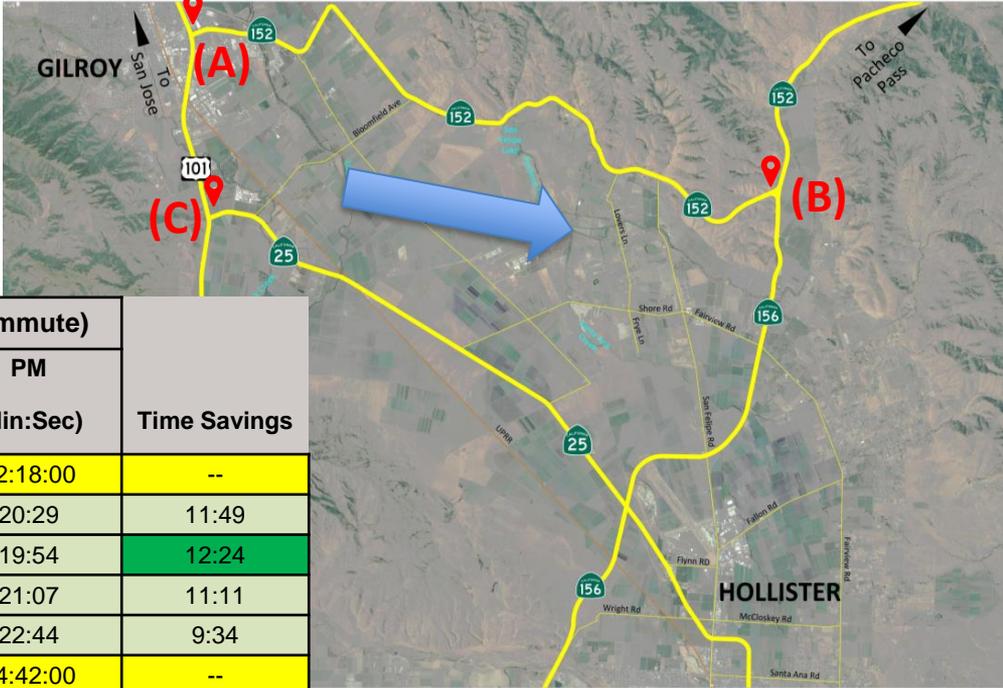


1. Operations – Westbound



Origin and Destination	Scenario	Westbound Travel Times (AM commute)			Time Savings
		AM (Min:Sec)	Time Savings (Min:Sec)	PM (Min:Sec)	
From SR 152/156 to US 101/SR 152 (B) to (A)	No Build	35:48	--	22:16	--
	Alignment 1	20:06	15:42	13:39	8:37
	Alignment 2	19:47	16:01	13:39	8:37
	Alignment 3	21:03	14:45	15:18	6:58
	Alignment 4	22:57	12:51	16:23	5:53
From SR 152/156 to US 101/SR 25 (B) to (C)	No Build	38:49	--	27:54	--
	Alignment 1	12:17	26:32	10:18	17:36
	Alignment 2	11:33	27:16	10:18	17:36
	Alignment 3	13:23	25:26	11:57	15:57
	Alignment 4	15:15	23:34	13:02	14:52

1. Operations - Eastbound



Origin and Destination	Scenario	Eastbound Travel Times (PM commute)			Time Savings
		AM (Min:Sec)	Time Savings (Min:Sec)	PM (Min:Sec)	
From US 101/SR 152 to SR 152/SR 156 (A) to (B)	No Build	19:31	--	32:18:00	--
	Alignment 1	13:24	6:07	20:29	11:49
	Alignment 2	13:16	6:15	19:54	12:24
	Alignment 3	14:56	4:35	21:07	11:11
	Alignment 4	15:58	3:33	22:44	9:34
From US 101/SR 25 to SR 152/ SR 156 (C) to (B)	No Build	24:33:00	--	34:42:00	--
	Alignment 1	10:23	14:10	12:19	22:23
	Alignment 2	10:15	14:18	11:11	23:31
	Alignment 3	11:55	12:38	13:00	21:42
	Alignment 4	12:57	11:36	14:45	19:57

1. Operations – Re-routing of SR 152 Traffic

Additional notes:

- Vast majority of traffic in reverse commute direction utilizes the new roadway regardless of alignment alternative
- Additional traffic is attracted to each alternative from the south, with non-SR 152 traffic increasing for southerly alternatives (i.e. redirecting SR 25 traffic north of 156)

WB SR 152 traffic volume reduction AM commute	
<u>Alternative</u>	<u>Reduction (%)</u>
1	34% reduction
2	33%
3	24%
4	20%
EB SR 152 traffic volume reduction PM commute	
<u>Alternative</u>	<u>Reduction (%)</u>
1	33% reduction
2	37%
3	26%
4	21%

2. Facilitates/Supports Multimodal/Transit

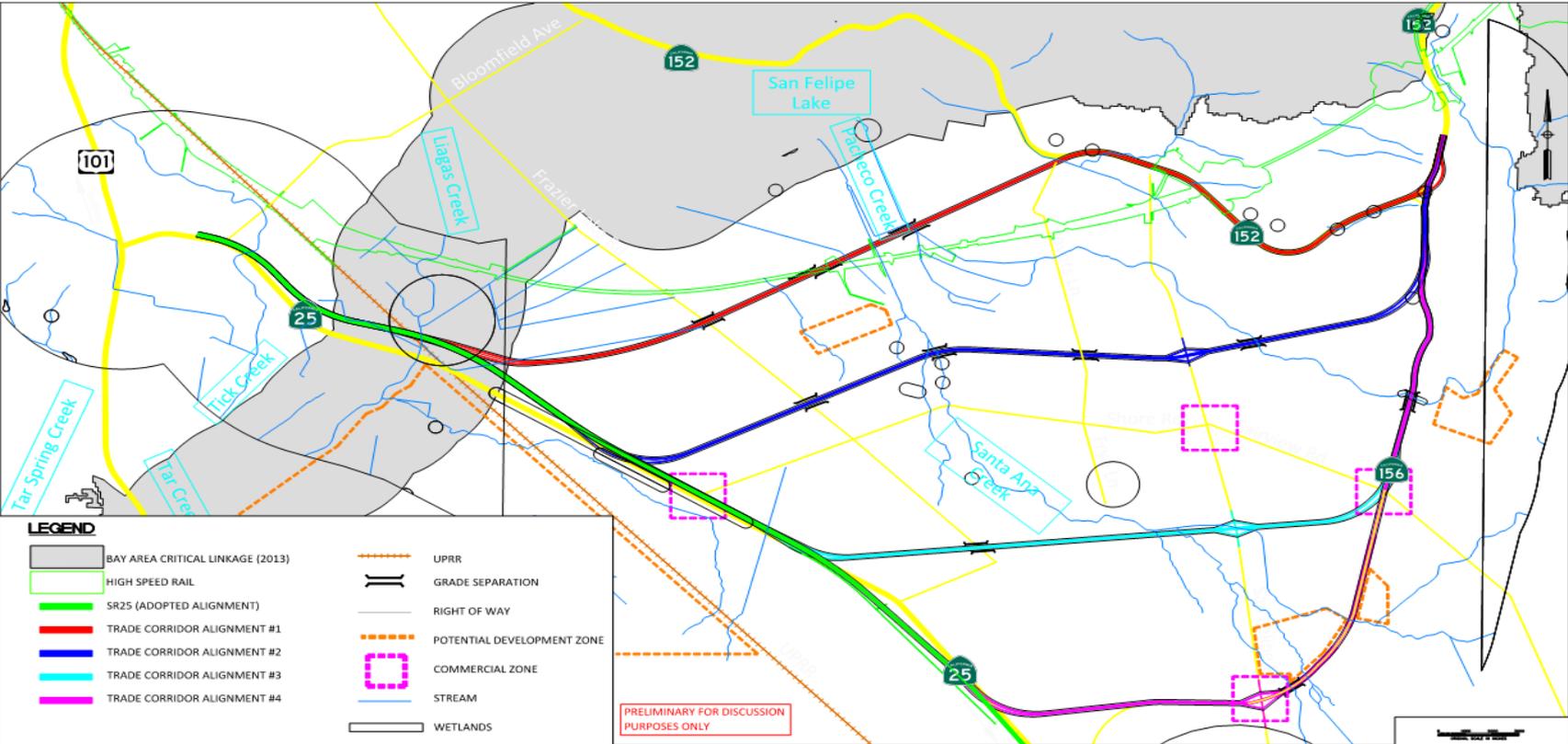
- Each alignment will be designed to accommodate multimodal use (Bicycles and Pedestrians)
- Alternatives that are proximate to existing or future higher density development/uses will be more attractive for transit

3A. Environmental Impacts

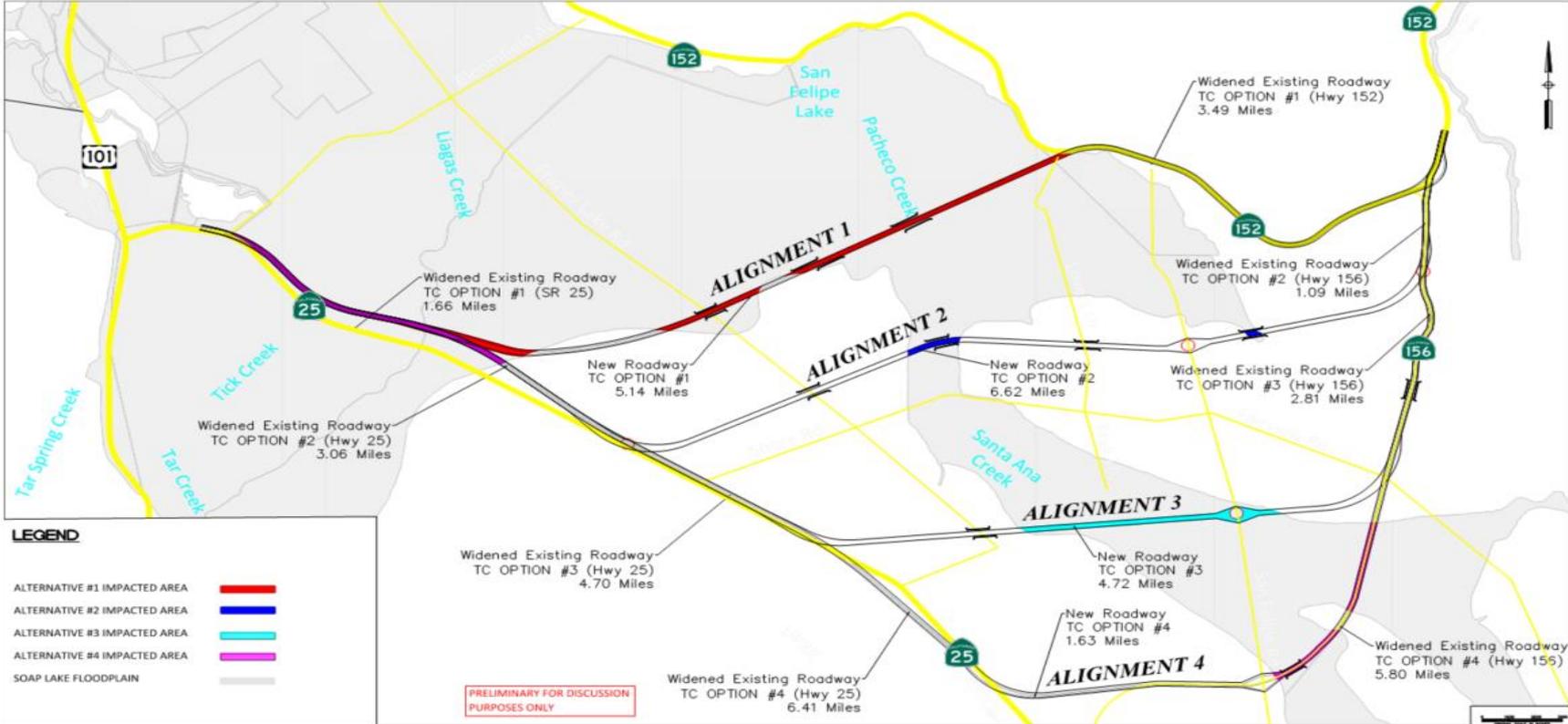
Impacts considered

- Wildlife corridor
 - Special Status Species
- Agricultural land impacts
 - Number of parcels bi-sected
- Flood plain
 - Wetlands and streams

3A. Environmental Impacts Streams, Wetlands, and Wildlife Corridor

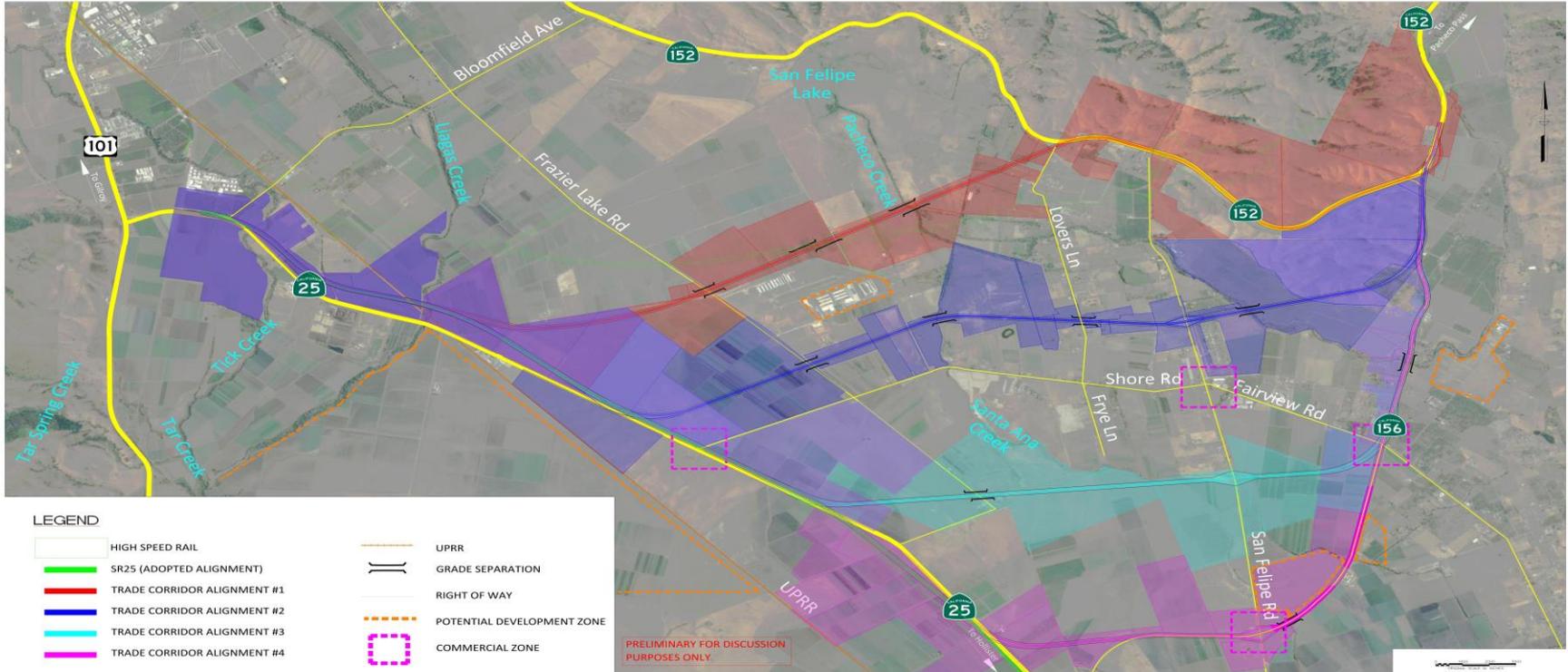


3A. Environmental Impacts – Flood Plain



3A. Environmental Impacts – Agricultural

Note: Figure shows all properties impacted – ag and non-ag



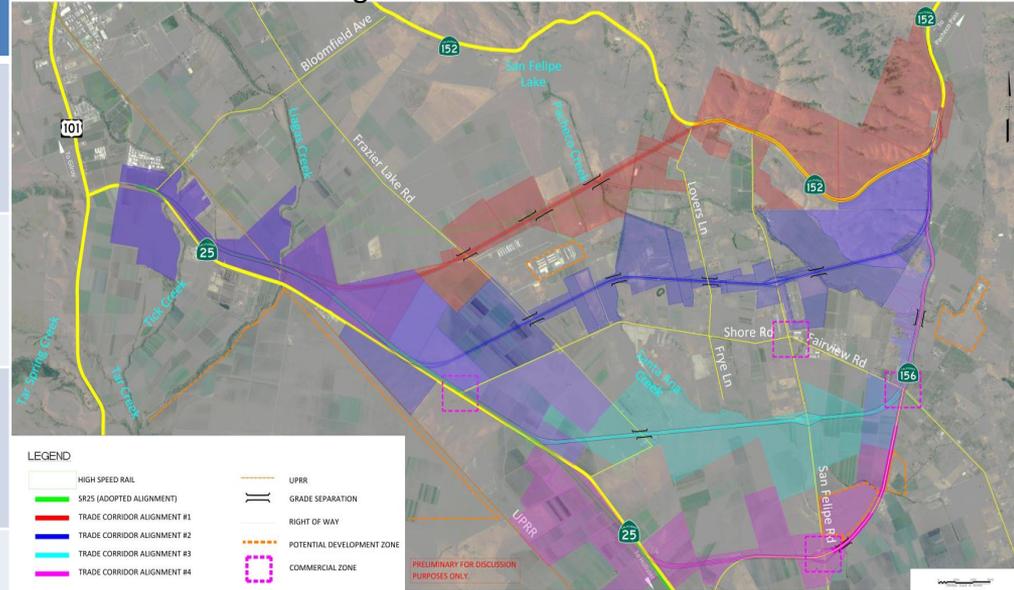
3B. Community Impacts

- Right of Way
 - Non-agricultural takes/impact
- Construction Impacts
 - Traffic impacts
 - # of interchanges
 - # of grade separations
- Proximity to existing facilities/uses

3B. Community Impacts – Right of Way (non-agricultural) and Construction Impacts

Note: Figure shows all properties impacted – agricultural and non-agricultural

Roads Impacted	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Local Roads	8	10	10	12
Driveway	13	14	18	19
Frontage Roads / Local Access Roads	36	49	58	58
Total Roads Impacted	57	73	86	89



4. Access to Economic Centers

Ability of Alternative to provide easy access to planned economic centers in San Benito County



5. Community Acceptance

Stakeholder's feedback:

Stakeholders were asked about: purpose and need, evaluation criteria and routes

- No consensus about which route option should move forward
- The two “middle alignments” seemed to be most favored
- The northern most alignment (Alt 1):
 - felt by most to be too close to the existing alignment
 - stakeholders did not see the relationship to economic development in San Benito County (a stated goal)
- The southern most alignment (Alt 4):
 - received many negative comments for being too far “out of the way”
 - too close to the existing 101/156 interchange.

6. Potential for tolling / P3 approach to develop corridor

- Benefit / time savings provide potential demand
- Direct route / minimal access points improve operations and demand



NTC Alternatives Assessment – Raw Scoring

<u>CHARACTERISTICS/CRITERIA</u>	<u>Raw Scoring</u>			
	<u>Alt 1</u>	<u>Alt 2</u>	<u>Alt 3</u>	<u>Alt 4</u>
1. Operations				
1.1 Travel Time	6	7	5	4
1.2 Demand generated by NTC (projected usage)	6	6	4	2
2. Facilitates multimodal/transit use	7	7	7	6
3A. Environmental Impacts				
3A.1 Wildlife Corridor	2	3	5	7
3A.2 Agricultural	3	6	7	8
3A.3 Flood Plain	5	8	7	8
3B. Community Impacts				
3B.1 Right of Way (non-agricultural)	8	6	4	4
3B.2 Construction	7	7	7	6
4. Access to Economic Centers	4	6	8	9
5. Community Acceptance	3	5	5	3
6. Potential for tolling to fund P3 approach	6	7	4	2

NTC Alternatives Assessment – Weighted Scoring

Raw scores averaged for each primary category, then adjusted per weighting factor

<u>CHARACTERISTICS/CRITERIA</u>	<u>WEIGHTING FACTOR</u>	<u>Weighted Scoring</u>			
		<u>Alt 1</u>	<u>Alt 2</u>	<u>Alt 3</u>	<u>Alt 4</u>
1. Operations	25	15	16	11	8
2. Facilitates multimodal/transit use	10	7	7	7	6
3A. Environmental Impacts	10	3	6	6	8
3B. Community Impacts	15	11	10	8	8
4. Access to Economic Centers	15	6	9	12	14
5. Community Acceptance	15	5	8	8	5
6. Potential for tolling / P3 approach	10	6	7	4	2
Total Possible Points	100	53	62	56	49
Cost		\$490M	\$540M	\$515M	\$560M

New Trade Corridor Assessment Summary and Recommendations

- **Overview of Results:**

- Each alternative has positives and negatives
- No 'clear winner' or 'clear loser'
- Alternative 4 scores lowest, is most expensive and has additional issue related to constraints at SR 25/SR 156 intersection due to airport (height restrictions)
- Alternative 1 scores next lowest but is notably more challenging environmentally, which is the next phase of the project

- **Recommendation:**

- Eliminate Alternatives 1 and 4
- Finalize summary of work to date (report)
- Define costs needed for PA/ED (next phase of work)
- Continue to pursue funding, using report as support

END OF SR 152 NEW TRADE CORRIDOR ALTERNATIVES SUMMARY MEMORANDUM

- **Purpose of the Agenda Item:**
 - Present overview of Alternatives Summary Memorandum
 - Discuss options for future work efforts on New Trade Corridor
- **Action Item** – Accept SR 152 New Trade Corridor Alternatives Summary Memorandum

New Trade Corridor Assessment Summary and Recommendations (Approved September 9, 2020)

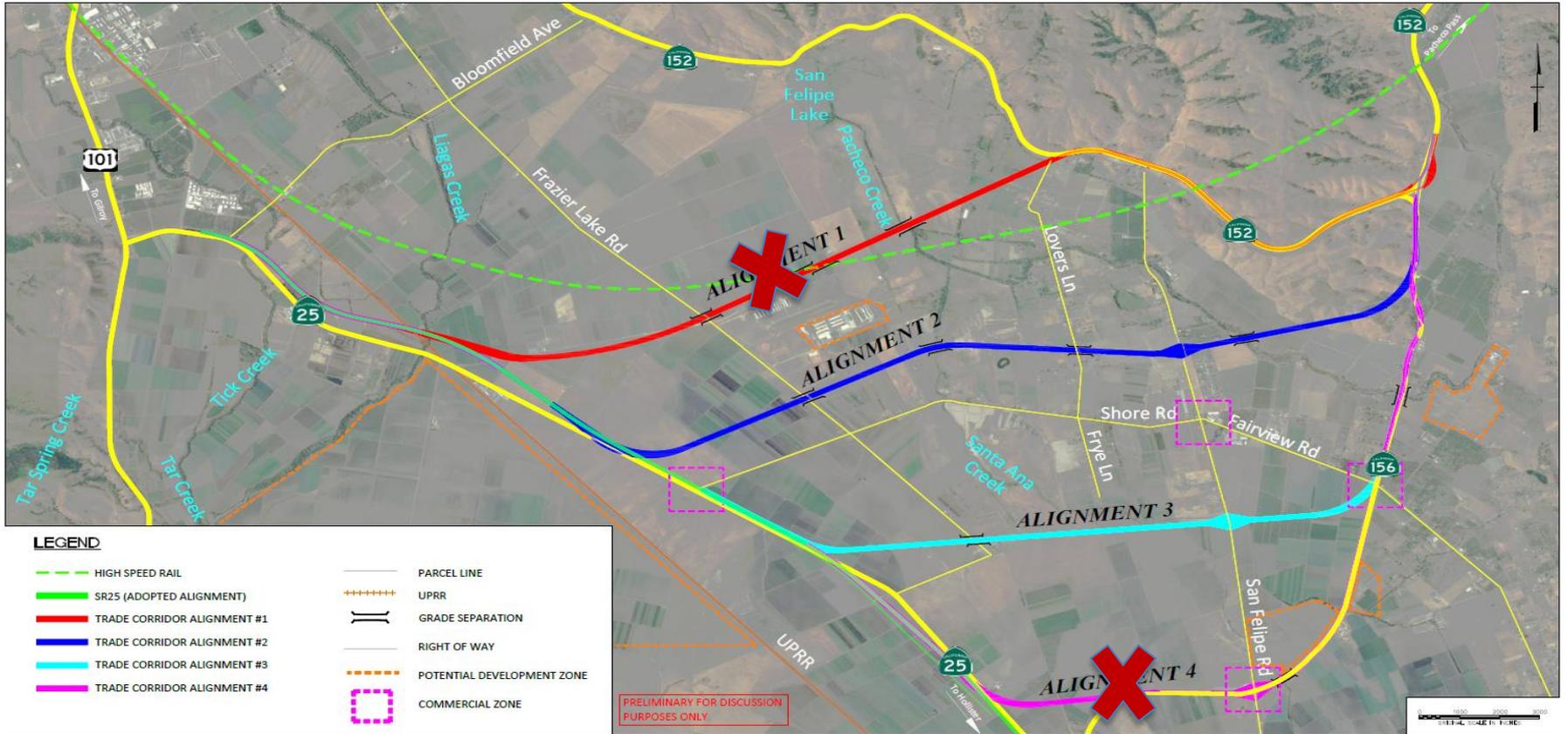
- **Overview of Results:**

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- **Recommendation:**

- Eliminate Alternatives 1 and 4
- Finalize summary of work to date (report)
- Define costs needed for PA/ED (next phase of work)
- Continue to pursue funding, using report as support

New Trade Corridor Alignment Alternatives



NTC Alternatives Assessment – Weighted Scoring

Raw scores averaged for each primary category, then adjusted per weighting factor

<u>CHARACTERISTICS/CRITERIA</u>	<u>WEIGHTING FACTOR</u>	<u>Weighted Scoring</u>			
		<u>Alt 1</u>	<u>Alt 2</u>	<u>Alt 3</u>	<u>Alt 4</u>
1. Operations	25	15	16	11	8
2. Facilitates multimodal/transit use	10	7	7	7	6
3A. Environmental Impacts	10	3	6	6	8
3B. Community Impacts	15	11	10	8	8
4. Access to Economic Centers	15	6	9	12	14
5. Community Acceptance	15	5	8	8	5
6. Potential for tolling / P3 approach	10	6	7	4	2
Total Possible Points	100	53	62	56	49
Cost		\$490M	\$540M	\$515M	\$560M



Summary Memorandum

- Presents details of Analysis
- Provides supporting data
- Discusses methodology for scoring

Summary Memorandum – Table Of Contents




Alternatives Summary Memorandum

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Alternatives Summary Memorandum

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New Trade Corridor Next Steps

- Update Project Sheet
- Consider community outreach follow up
- Assess options for Project Approvals/Environmental Document (PA/ED) phase
- Discuss overall implementation plan for vision presented on May 13, 2020 Mobility Partnership meeting.

New Trade Corridor

- **Purpose of the Agenda Item:**
 - Present overview of Alternative Summary Memorandum
 - Discuss options for future work efforts on New Trade Corridor
- **Action Item** – Accept SR 152 New Trade Corridor Alternative Summary Memorandum



Memo on Agenda Item 12
Date: December 9, 2020

TO: Mobility Partnership
FROM: Chris Metzger, Project Manager
SUBJECT: Work Plan

INFORMATION ITEM

RECOMMENDATION:

Present work plan, next actions, and action items per December 9, 2020 meeting.

BACKGROUND:

See attached work plan (Attachment 12).

MOBILITY PARTNERSHIP WORK PLAN - December 9, 2020

Number	Title	Mobility Partnership Meetings						
		June 2020	Sept 2020	Dec 2020	Mar 2021	June 2021	Sept 2021	Dec 2021
1	High Speed Rail Update Presentations	√			√		√	
2	US 101/SR 25 Phase 1 Updates	√	√	√	√	√	√	√
2a	- 65% Design	√	√	√				
2b	- Final Design, Right of Way acquisition status and Project Bidding		√	√	√	√	√	√
3	New Trade Corridor Project Advocacy:			√	√			
3a	- Information Flyer for State and Federal Officials				√			
3b	-Meetings with Officials and Staff			√		√		√
4	New Trade Corridor	√	√	√				
4a	- Alignment Concepts							
4b	- Purpose and Needs/Goals/Objectives	√						
4c	- Evaluation Criteria / Alternative Assessment	√	√	√				
5	Coordination of SR 25 Expansion and New Trade Corridor			√	√			
5a	- Kickoff Meeting							
5b	-Project Development Team Updates to Mobility Partnership							
6	Potential Funding Opportunities	√		√	√	√	√	√
7	Institutional/Governance Topics					√		√
8	Outreach Updates	√		√	√	√		√
8a	- US 101/SR 25 Phase 1	√		√		√		√
8b	- New Trade Corridor	√			√			



Memo on Agenda Item 13
Date: December 9, 2020

TO: Mobility Partnership

FROM: Casey Emoto, Santa Clara Valley Transportation Authority (VTA)
Chief Engineering and Program Delivery Officer

SUBJECT: Establish schedule for future meetings

ACTION ITEM

RECOMMENDATION:

Approve schedule of future meeting.

BACKGROUND:

Previously approved next MP virtual meeting – Wednesday, March 10, 2021, 9:30 to 11 am.

Based on availability of MP members, staff is recommending the following future meeting dates for discussion and approval:

- Wednesday, June 9, 2021 – morning. Time and location TBD
- Wednesday, September 8, 2021 – morning. Time and location TBD
- Wednesday, December 8, 2021 – morning. Time and location TBD

If it is deemed necessary for completion of Mobility Partnership business, staff will schedule special meetings for other dates in 2021.