# **Eastridge to BART Regional Connector**

# Third Addendum to the Final Second Supplemental Environmental Impact Report

State Clearinghouse #2001092014

## Prepared by:

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#### Section 1 Introduction

### 1.1 Purpose of the Addendum

The California Environmental Quality Act (CEQA) recognizes that between the date projects are approved and the date they are constructed one or more of the following changes may occur: 1) the scope of the project may change, 2) the environmental setting in which the project is located may change, 3) certain environmental laws, regulations, or policies may change, and 4) previously unknown information may be identified. CEQA requires that lead agencies evaluate these changes to determine whether or not they are significant.

The mechanism for assessing the significance of these changes is found in CEQA Guidelines Sections 15162 - 15164. Under these Guidelines, a lead agency should prepare a subsequent or supplemental CEQA document if the triggering criteria set forth in CEQA Guidelines Section 15162 and 15163 are met. These criteria include a determination whether any changes to the project, or the circumstances under which the project will be undertaken, involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects. In addition, a subsequent or supplemental CEQA document may be prepared if "new information" meeting certain standards under Guidelines Section 15162 is presented. If the changes do not meet these criteria, or if no "new information of substantial importance" is presented, then an Addendum per CEQA Guidelines Section 15164 is prepared to document any minor corrections to the Environmental Impact Report (EIR) or Initial Study/Mitigated Negative Declaration (MND). CEQA does not require that an Addendum be circulated for public review.

As discussed in Section 3 of this document, the implementation of the project change described in Section 2 will not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Therefore, the preparation of a Supplemental EIR, as defined by CEQA, is not warranted and an Addendum is the appropriate environmental document.

## 1.2 Overview of the Eastridge to BART Regional Connector Project

The Eastridge to BART Regional Connector (EBRC) Project will extend light rail along Capitol Expressway between the existing Alum Rock Light Rail Station and Eastridge Transit Center, a distance of approximately 2.4 miles. Light rail will operate primarily in the median of Capitol Expressway within exclusive and semi-exclusive rights-of-way. To provide the additional right-of-way to accommodate light rail, high-occupancy vehicle lanes will be removed between Story Road and Tully Road. The Project will include new light rail stations at Story Road (aerial) and Eastridge Transit Center (at-grade). The Project will also include traction power substations at Ocala Avenue and Eastridge Transit Center. Relocation and replacement of a number of 115-kilovolt steel lattice electrical transmission towers with Tubular Steel Poles (TSP) will be required for the Project.

Figure 1 shows the location of the EBRC Project.

#### 1.3 Previous Environmental Studies

The federal and state environmental process for the Capitol Expressway Light Rail (CELR) Project was initiated in September 2001 with the publishing of a Notice of Intent to prepare an Environmental Impact Statement (EIS) in the federal register and the filing of the Notice of Preparation of an EIR with the State Clearinghouse. A Draft EIS/EIR was circulated in April 2004, but only a Final EIR was completed as a result of limited opportunities for securing federal funds.

In May 2005, the VTA Board of Directors certified the Final EIR (hereafter referred to as the "2005 Final EIR") and approved the Light Rail Alternative. As a result of preliminary engineering, the Light Rail Alternative was modified to address agency comments, improve operations, minimize right-of-way acquisition, and lower costs. To address these modifications, VTA prepared a Final Supplemental EIR (Final SEIR). The VTA Board of Directors certified the Final SEIR and approved the modifications to the Project in August 2007 (hereafter referred to as the "2007 Final SEIR").

Due to unprecedented declines in revenues beginning in 2008, the implementation plan for the Light Rail Alternative was modified to construct the Project in phases. A Revised Addendum to the 2007 Final SEIR was approved in June 2010 that included the installation of pedestrian and bus improvements as Phase 1 and the extension of light rail along Capitol Expressway as Phase 2.

In addition to the state environmental process, VTA reinitiated the federal environmental process on September 9, 2009, with a Notice of Intent to prepare a Supplemental Draft EIS. The Supplemental Draft EIS was circulated on May 18, 2012, for 45 days with comments due on July 3, 2012. The federal environmental process under the National Environmental Policy Act (NEPA) was suspended in 2017 as a result of limited opportunities for securing federal funds.

A Subsequent Initial Study (IS)/Mitigated Negative Declaration (MND) was approved in March 2014 (hereafter referred to as the "2014 Subsequent IS/MND") that eliminated the Ocala Station, eliminated sidewalk widening and sound wall relocation north of Ocala Avenue, and expanded the Eastridge Park-and-Ride lot.

A Second Supplemental EIR (SEIR-2) and Second Subsequent IS was approved in June 2019 (hereafter referred to as the "2019 Final SEIR-2") to address major changes to the Project as well as incorporate changed circumstances and new information.

A Second Addendum evaluated six design changes as a result of advances in engineering and electrical designs. This Addendum was approved in February 2020.

## 1.4 Scope of the Third Addendum

The Third Addendum evaluates the additional removal of 60-70 trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road as a result of the relocation of a number of PG&E electrical transmission towers to clear the right-of-way for the Project. This modification is described in more detail in Section 2. The Third Addendum will describe the effects of the change to the Project on the environmental setting, impacts, and mitigation measures.

# **Section 2** Proposed Change to the Project

This section describes the proposed change to the Project since the approval of the prior environmental documents.

After the approval of the Final SEIR-2 in June 2019, VTA is proposing a minor change to the Project as a result of new information regarding the relocation of a number of PG&E electrical transmission towers along the east side of Capitol Expressway between Ocala Avenue and Quimby Road. The relocation of these electrical transmission towers is needed to clear the right-of-way for the Project. The relocation of the electrical transmission towers is scheduled to begin in Spring 2021.

Approximately 60-70 trees that are located within the aerial easement of the electrical transmission lines will need to be removed per PG&E's Electric and Gas Service Requirements 2020-21 (Greenbook). Trees of certain height under high voltage electric lines are required to be cleared for public safety reasons and to provide access to the lines for maintenance and repairs. South of Ocala Avenue and north of Tully Road, there are approximately 35 trees located in the public right-of-way that will need to be removed. North of Tully Road, there are approximately 8 trees located on private property that will need to be removed. South of Tully Road, there are approximately 18 trees located on private property that will need to be removed (See Appendix A for Excerpt from Addendum to the Tree Inventory Report). The Third Addendum evaluates the potential for additional trees besides the 61 mentioned to be removed for the Project.

The additional removal of approximately 60 - 70 trees increases the total number of trees to be removed by the Project from 150 to between 210 - 220 trees (See Appendix B for Excerpt from the 2019 Tree Inventory).

As indicated in previous environmental documents, all trees removed by the Project will be replaced at ratios determined by their size and replacement species (i.e., native versus non-native). In the Second Addendum to the Final SEIR-2 approved in February 2020, the VTA Board approved the payment of in-lieu fees to replace trees within two miles of the project corridor to the maximum extent practicable given the limited right-of-way available for tree replacement within the project limits. These in-lieu fees are currently \$750 per tree per the City of San Jose's Guidelines for Inventorying, Evaluating, and Mitigating Impacts to Landscaping Trees in the City of San Jose. According to a tree inventory conducted by a certified arborist, the Project will be required to provide an additional 67 – 128 replacement trees depending on the replacement species (i.e., native versus non-native). In terms of in-lieu fees, this amounts to \$50,250 - \$96,000 for the additional trees based on a fee of \$750 per tree. This brings the total number of trees that will be replaced by the Project to 222 – 414 depending on the replacement species.

# Section 3 Environmental Setting, Impacts, and Mitigation

#### 3.1 Transportation

This section evaluates the potential for transportation impacts from the removal of additional trees due to relocation of PGE electric transmission lines along the east side of Capitol Expressway between Ocala Avenue and Quimby Road. The tree removal will require temporary lane closures along Capitol Expressway. As required by Mitigation Measure TRN(CON)-2a (Prepare Traffic Management Plan) from the 2005 Final EIR, PGE will prepare traffic handling plans, employ traffic flaggers, and endeavor to minimize peak hour delays to all users. Consequently, the removal of additional trees would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to transportation.

## 3.2 Air Quality

This section evaluates the potential for air quality and climate change impacts. The Project is located within the San Francisco Bay Area Air Basin. The air pollutants of greatest concern in this area are ozone, particulate matter less than or equal to 2.5 microns in diameter (PM2.5), particulate matter less than or equal to 10 microns in diameter (PM10), and carbon monoxide (CO). Motor vehicles are the dominate source of these pollutants. Trees can directly and indirectly affect air quality by reducing temperatures, removing air pollution, and generating tree-related maintenance emissions. As they grow, plants and trees can also take carbon dioxide from the atmosphere and turn it into sugars through photosynthesis. As a result, plants and trees help improve air quality and limit global warming. While the Project would be removing 60 – 70 additional trees, the Project would be planting 67 – 128 replacement trees which would minimize the effect on air quality and climate change. As a result, the change to the Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to air quality.

# 3.3 Biological Resources

This section evaluates the potential for impacts to biological resources from the removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road. Mitigation Measure BIO-18b (Replace Trees) from the 2005 Final EIR states that:

All urban trees that are to be removed or lost shall be replaced. Trees with a diameter less than 12 inches shall be replaced at a 2:1 ratio. All trees with a diameter of 12 inches or more shall be replaced at a 3:1 ratio. If urban trees (nonnatives and ornamentals) are replaced with native trees, a reduced mitigation ratio of 1:1 for all trees smaller than 12 inches in diameter, and 2:1 for all trees with a diameter 12 inches or more, shall be

implemented. These trees shall be irrigated and maintained for a period of not fewer than 3 years.

As the VTA Board of Directors approved in February 2020, VTA can fulfill this mitigation measure by contributing in-lieu fees to replace the trees outside of the Project limits. Because the trees would be replaced within two miles of the project corridor to the maximum extent practicable, the removal of 60-70 additional trees would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects to biological resources.

### 3.4 Community Services

This section evaluates the potential for impacts to community facilities (schools, fire stations, police stations, hospitals, libraries, civic/community centers, parks, religious institutions, and museums) from the removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road. Since the removal of additional trees would not result in the provision or need for new or physically altered government facilities, the change to the Project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects to community services.

#### 3.5 Cultural Resources

This section evaluates the potential for impacts to cultural resources from the removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road. There are no known archaeological resources located within the approved Project limits, which includes the footprint for the additional tree removals. Similarly, no isolated remains, cemeteries, or archaeological resources that contain human remains have been identified within the Project limits. As such, the additional tree removals would not result in impacts to known archaeological resources (including human remains). However, a desktop geoarchaeological sensitivity analysis revealed that the Project footprint is underlain by landforms that have sensitivity for containing unknown buried archaeological resources. In case of an inadvertent discovery of buried cultural resources, standard practice, which is to stop work immediately, will be followed as described in Section 3.5 of the 2019 Final SEIR-2. In addition, there will be a Native American monitor required during construction involving subsurface excavation between Cunningham Avenue and Quimby Avenue. These requirements will apply to any subsurface excavation associated with the removal of the trees. With the inclusion of these standard practices and Native American monitoring, the additional tree removals would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects to cultural resources.

### 3.6 Electromagnetic Fields

This section evaluates the potential for health effects from electromagnetic fields (EMF) from the removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road. EMF is associated with electromagnetic radiation from natural and human-made sources (electronics, telecommunications, and other electrically powered devices). Since the removal of additional trees will not add new sources of EMF, a new significant environmental effect or a substantial increase in the severity of previously identified significant effect to EMF will not result from the change to the Project.

### 3.7 Energy

This section evaluates the potential to place a substantial demand on the regional energy supply, require substantial additional capacity, or significantly increase peak and base period electricity demand. The removal of additional trees along the east side of Capitol Expressway would have minimal impact on energy supply, capacity, or demand. As a result, the change to the Project will not create a new significant environmental effect or a substantial increase in the severity of previously identified significant effects to energy resources.

#### 3.8 Environmental Justice

This section evaluates the potential for disproportionately high and adverse effects on minority and low income populations. The removal of additional trees along the east side of Capitol Expressway will have a visual effect on all populations that live and travel along the Capitol Capitol Expressway corridor, regardless of their minority or low income status. While VTA will replace trees within 2 miles of the Project corridor to the maximum extent practicable, the inability to replace trees within the Project corridor will have a visual effect. Since there will be other plantings within the Project corridor as required by Mitigation Measure VQ-4 (Incorporate Landscaping), the visual effect will be lessened. As a result, this change to the Project is not anticipated to cause a disproportionately high and adverse effect on minority and low income populations.

# 3.9 Geology, Soils and Seismicity

This section evaluates the potential to increase the hazards related to geology, soils, and seismicity. The topography of the area is relatively flat. There are no significant or unique geologic conditions (e.g., faults, landslides, steep slopes, etc.) on or adjacent to the Capitol Expressway Corridor that would require special mitigation. Although the Project is located in a seismically active region, this fact applies to the greater Bay Area and is not unique to this site. The removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road will not involve the construction of any large-scale structures and

facilities. As a result, the change to the Project will not cause a new significant environmental effect or a substantial increase in the severity of previously identified significant effects to geology, soils and seismicity.

#### 3.10 Hazardous Materials

This section evaluates the potential to encounter hazardous materials during the removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road. While the tree removal would involve the grinding of stumps and the preservation of existing irrigation systems to the extent possible, these activities would not involve any subsurface excavation.

The 2020 Preliminary Site Investigation and Hazardous Materials Evaluation did not identify any concerns in the vicinity of the additional tree removals.

As a result, the change to the Project is not anticipated to create a new significant environmental effect or a substantial increase in the severity of previously identified significant effects from hazardous materials.

### 3.11 Hydrology and Water Quality

This section evaluates the potential of the changes to the Project to affect existing flooding hazards, impair water quality, and create additional sources of runoff.

As with the approved Project, the changes to the Project are currently located within the 100-year flood hazard zone of Silver Creek. However, it is anticipated that the flood insurance maps will be updated with the completion of the Lower Silver Creek Flood Protection Project in December 2019, and that 3,800 parcels will no longer be required by law to purchase flood insurance.

Since the additional trees that will be removed along the east side of Capitol Expressway between Ocala Avenue and Quimby Road are contained within planters in the sidewalk, the risk of increased erosion and sedimentation to surface waters from tree removal is low. In addition, Mitigation Measure HYD-11 (Comply with All Applicable Regulations and Subsequent Permit Programs Related to Water Quality Control) identified in previous environmental documents would still apply to the change to the Project. With the inclusion of this mitigation measure, the change to the Project is not anticipated to create a new significant environmental effect or a substantial increase in the severity of previously identified significant effects related to hydrology and water quality.

#### 3.12 Land Use

This section evaluates the potential of the change to the Project to be incompatible with existing adjacent land uses or be inconsistent with applicable plans, programs and policies. According to Section 13.28.310 of the City of San Jose Municipal Code, interference with high tension electrical lines is one of the criteria under which the removal of street trees is allowed. As a result, the removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road is not anticipated to create a new significant effect or a substantial increase in the severity of previously identified significant effects related to land use.

#### 3.13 Noise and Vibration

This section evaluates the potential of the change to the Project to result in noise or vibration impacts that would exceed criteria used by VTA and the Federal Transit Administration (FTA). Except for temporary construction noise, the removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road is not anticipated to create a new significant environmental effect or a substantial increase in the severity of previously identified significant effects related to noise and vibration.

#### 3.14 Safety and Security

This section evaluates potential safety and security impacts associated with the change to the Project. The removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road is not anticipated to create a new significant environmental effect or a substantial increase in the severity of previously identified significant effects related to safety and security.

#### 3.15 Socioeconomics

This section evaluates the potential for the change to the Project to negatively affect the population, household, and community characteristics of an area through physical divisions, disruption of efforts to economically revitalize the area, growth inducement, displacement of businesses and housing, and increased demand for housing. While the removal of an additional 60-70 trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Avenue will have a visual effect on this section of the Capitol Expressway Corridor, it is not anticipated to create a new significant environmental effect or a substantial increase in the severity of previously identified significant effects related to socioeconomics.

#### 3.16 Utilities

This section evaluates the potential for the change to the Project to affect utilities. The removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road will have a beneficial effect on utilities by minimizing risks to public safety and ensuring access to the electric transmission lines for maintenance and repairs. This change to the Project will not cause a disruption in utility service for a period of 24 hours or more. As a result, the change to the Project will not create a new significant environmental effect or a substantial increase in severity of previously identified significant effects related to utilities.

### 3.17 Visual Quality

This section evaluates the potential to degrade the existing visual character and quality of the Project corridor, negatively affect scenic vistas, and introduce new sources of light and glare. The removal of additional trees along the east side of Capitol Expressway between Ocala Avenue and Quimby Road will have a negative effect on the visual environment since these trees are not able to be replaced in the project limits due to the presence of electrical transmission lines and the lack of available right-of-way. This negative effect will be lessened by the planting of other types of vegetation and landscaping as part of the Project as required by Mitigation Measure VQ-4 (Incorporate Landscaping). Any vegetation that is planted underneath the electrical transmission lines will need to be on the list of *Recommended Plants for Electric Transmission Towers* and meet VTA's Sustainable Landscaping Policy if on VTA property. As a result, the change to the Project is not anticipated to create a new significant environmental effect or a substantial increase in severity of previously identified significant effects related to visual quality.

# 3.18 Construction Impacts

This section evaluates the potential construction impacts associated with the change to the Project. With the inclusion of the following applicable mitigation measures related to construction activities from previous approved environmental documents, the change to the Project is not anticipated to result in a new significant environmental effect or a substantial increase in severity of previously identified significant effects related to construction.

Traffic: Mitigation Measures TRN (CON)-2a (Prepare Traffic Management Plan), TRN (CON)-2b (Inform Public of Traffic Detours), and TRN (CON)-2c (Inform Public of Transit Service Changes)

Air Quality: Mitigation Measures AQ (CON)-1 (BAAQMD's BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD's BMPs to reduce GHG emissions from construction equipment) and AQ (CON)-3 use Tier 3 or Tier 4 equipment where possible.

Energy: Mitigation Measure E (CON)-1 (Adopt Energy Conservation Measures)

Hydology and Water Quality: Mitigation Measure HYD (CON)-1 (Implement Water Quality Control Measures)

Safety and Security: Mitigation Measure SS (CON)-1 (Implement Construction BMPs to Protect Workers and the Public)

#### 3.19 Cumulative Impacts

This section evaluates the incremental effect of the change to the Project on the environment when considered in conjunction with closely related past, present, and reasonably foreseeable future projects. While the removal of additional trees along Capitol Expressway between Ocala Avenue and Quimby Road will result in a cumulative loss of 210 to 220 trees, these trees will be replaced within two miles of the Project corridor to the maximum extent practicable. As a result, it is not anticipated that the change to the Project will result in a new significant cumulative effect or a substantial increase in the severity of previously identified significant cumulative effects.

### 3.20 Growth-Inducing Impacts

This section evaluates the potential of the design changes to directly or indirectly induce economic, population or housing growth in the surrounding environment. Given the relatively small scope and scale of the change to the Project, it is not anticipated to result in a new significant environmental effect or a substantial increase in the severity of previously identified significant effects as relates to growth inducement.

# **Section 5 Conclusion**

Based upon the evaluation of the change to the Project, it has been determined that there will be no new significant environmental effects nor substantial increases in the severity of any previously identified significant effects. Therefore, an Addendum is the appropriate environmental document.

#### Section 6 References

- Columbia University. November 27, 2018. Can Removing Carbon From the Atmosphere Save Us From Climate Catastrophe? <a href="https://blogs.ei.columbia.edu/2018/11/27/carbon-dioxide-removal-climate-change/">https://blogs.ei.columbia.edu/2018/11/27/carbon-dioxide-removal-climate-change/</a>
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- Megan Richards. 2021. Addendum to Tree Inventory for the Eastridge to BART Regional Connector. January 29.
- Pacific Gas & Electric Company. Recommended Plants for Electric Transmission Towers.
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- Santa Clara Valley Transportation Authority. 2020. Second Addendum to the Final Second Supplemental Environmental Impact Report. State Clearinghouse #2001092014. Final. January.
- Shawn Sanfilippo. 2019. *Tree Inventory for the Eastridge to BART Regional Connector*. November
- USDA Forest Service. 2002. THE EFFECTS OF URBAN TREES ON AIR QUALITY. <a href="https://www.nrs.fs.fed.us/units/urban/local-resources/downloads/Tree\_Air\_Qual.pdf">https://www.nrs.fs.fed.us/units/urban/local-resources/downloads/Tree\_Air\_Qual.pdf</a>

# **Figures**

Figure 1 Eastridge to BART Regional Connector Project

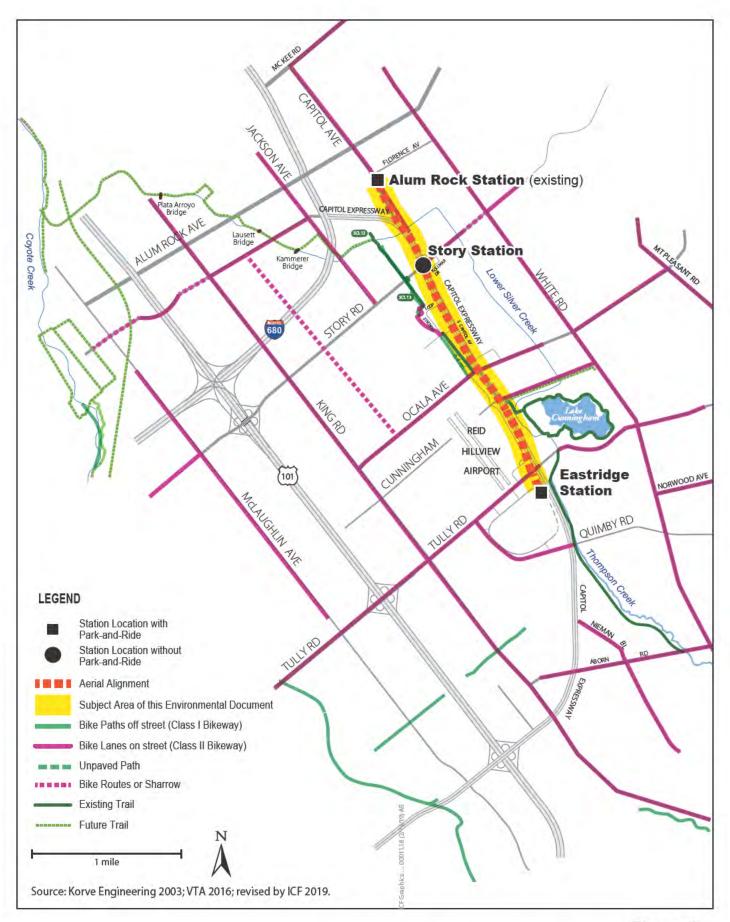


Figure 1 Eastridge to BART Regional Connector Project

# **Appendices**

Appendix A Excerpt from Addendum to Tree Inventory (January

29, 2021)

Appendix B Excerpt from Tree Inventory (November 4, 2019)

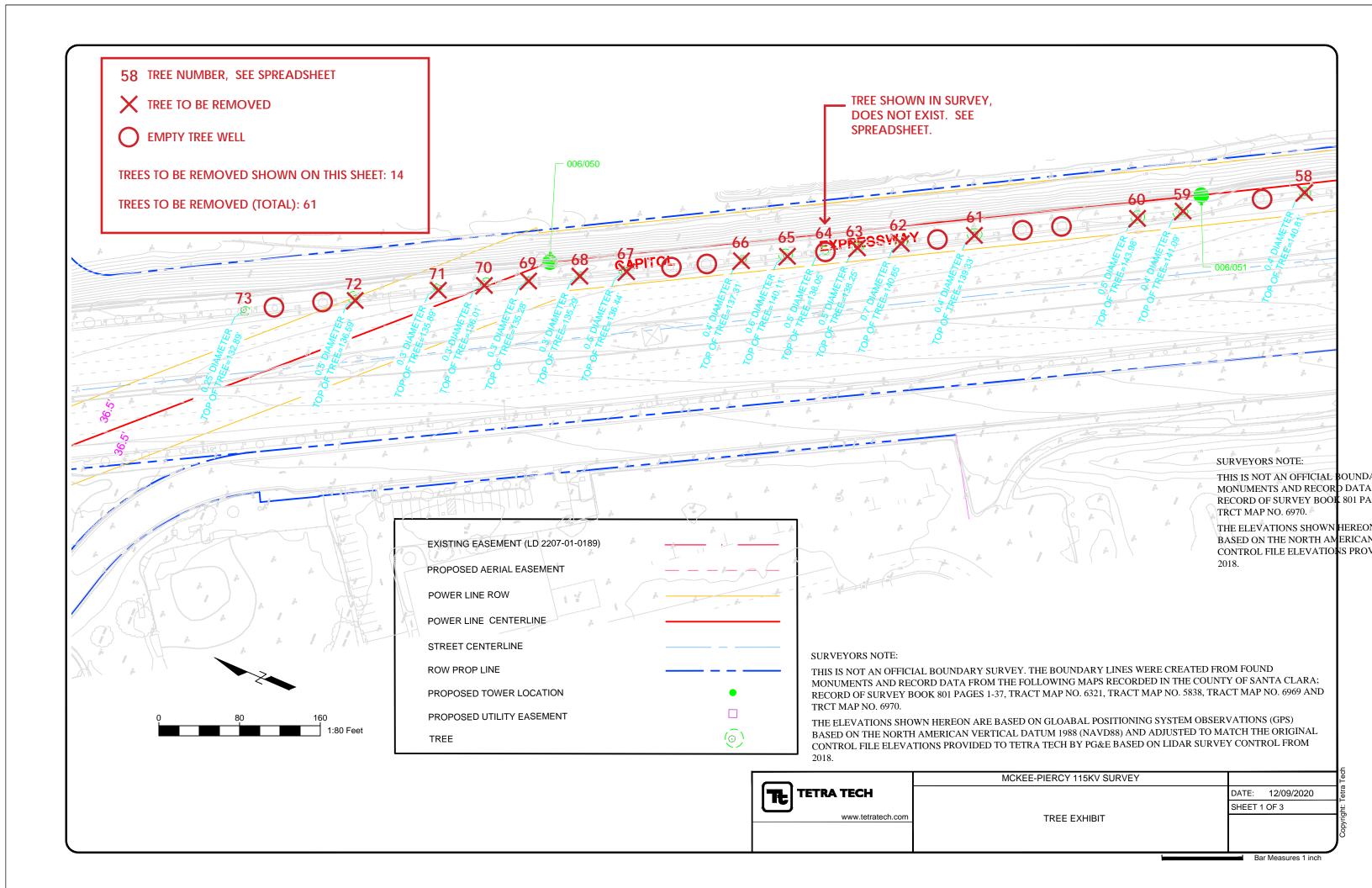
Appendix C Summary of Significant Environment Impacts and

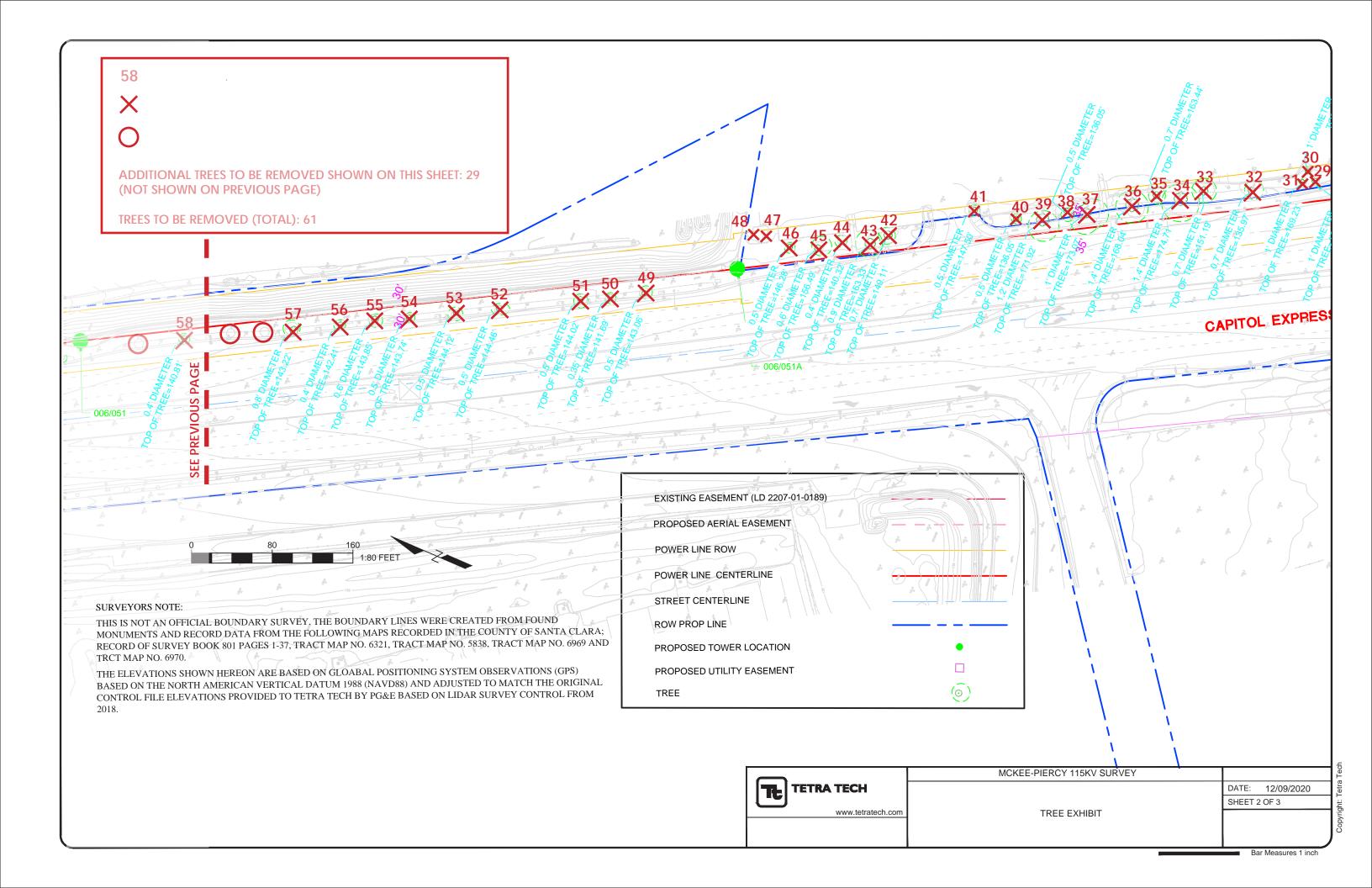
**Mitigation Measures** 

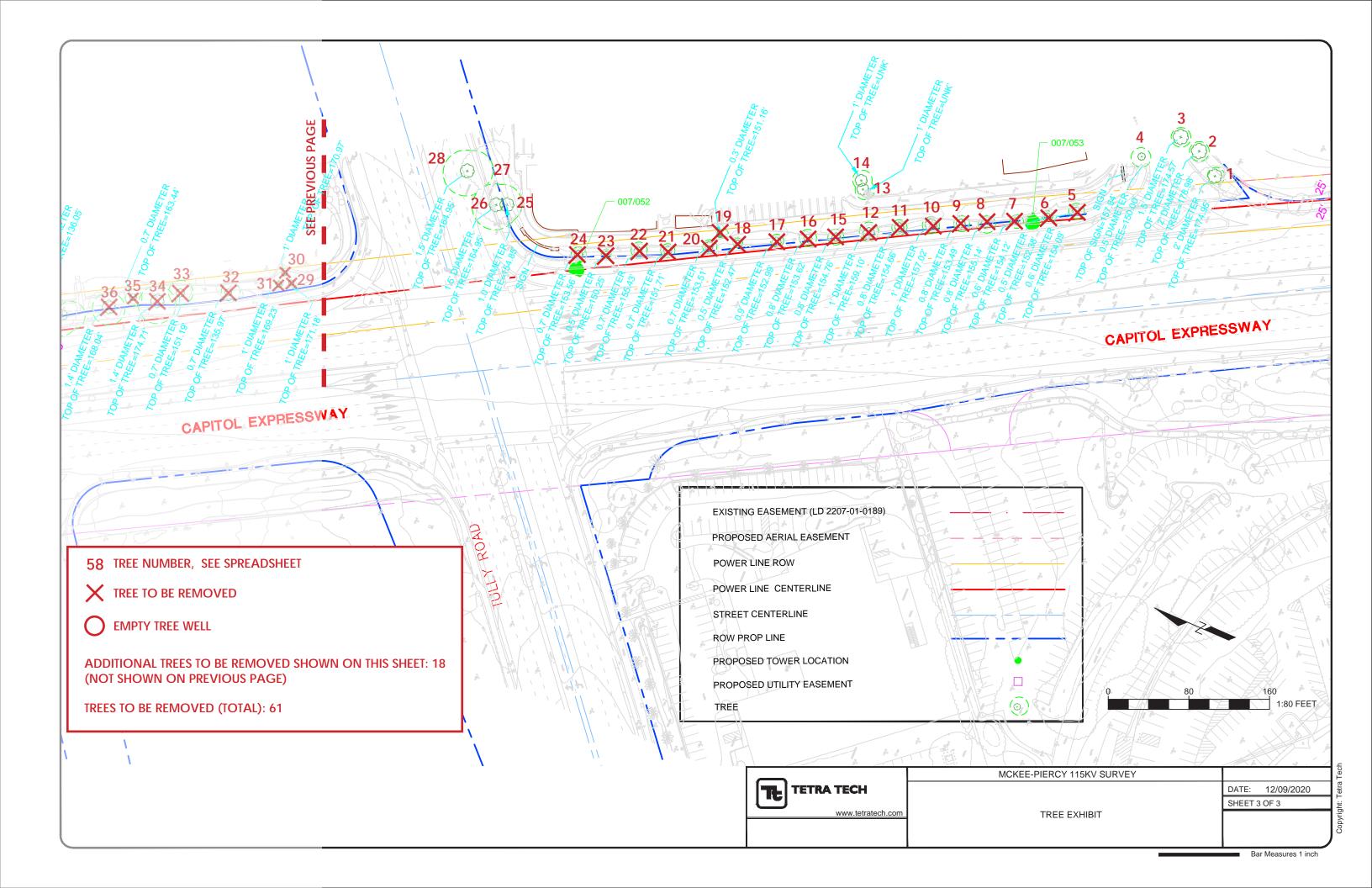
Appendix D Description of the Light Rail Alternative

# **Appendix A**

**Excerpt from Addendum to Tree Inventory (January 29, 2021)** 







#### EBRC TREE INVENTORY ADDENDUM SPREADSHEET

		Mitigation Per		Mitigation		
Summary	Mitigation Per	Removal (Non-	Mitigation	Required (non-		
Summary	Removal (Native	Native	Trees to be	Required (native	native	
	replacement)*	Replacement)*	removed	replacements)	replacements)	
Circumference at Breast Height (CBH) <38" (12" diameter equivalent)	1	2	55	55	110	
Circumference at Breast Height (CBH) ≥38" (12" diameter equivalent)	2	3	6	12	18	
	•	Total	61	67	128	

<sup>\*</sup> Requirements per 2005 EIR

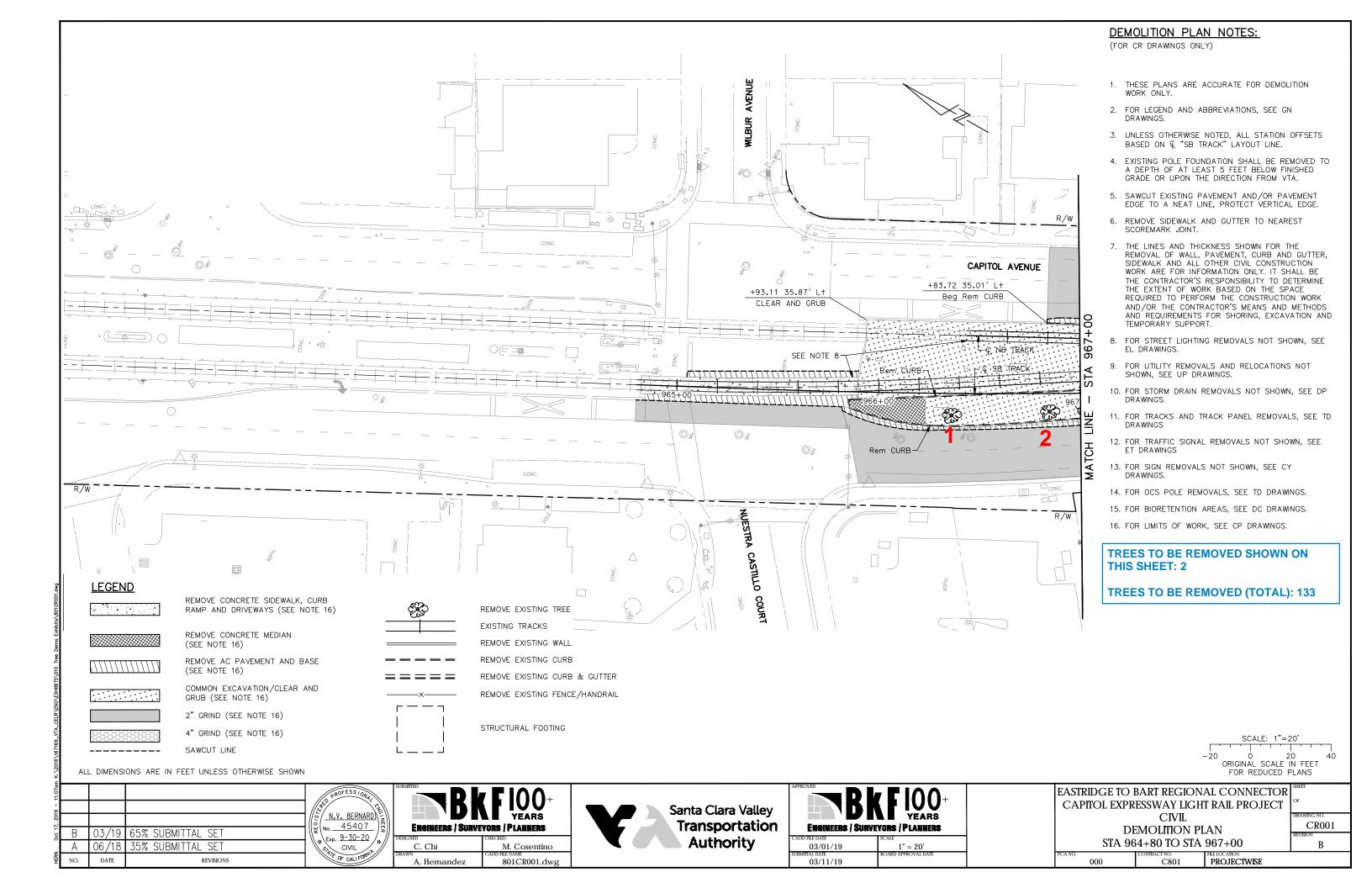
Tree #	Botanical Name	Common Name	CBH (Circumfrence at Breast Height, inches)	Condition	Native?	Mitigation Required (Native)	Mitigation Required (Non-Native)	Comments	Noted in field, Not on Tree Exhibit	Remove (per PG&E Demo Plan)
1	Sequoia sempervirens	Coast Redwood	49	Good	Υ	2	3			
2	Sequoia sempervirens	Coast Redwood	54	Good	Υ	2	3	Slight top dieback		
3	Sequoia sempervirens	Coast Redwood	43	Good	Υ	2	3			
4	Prunus cerasifera	Purple Leaf Plum	33	Good	N	1	2	Low Branching		
5	Magnolia grandiflora	Southern Magnolia	20	Good	N	1	2			Х
6	Magnolia grandiflora	Southern Magnolia	20	Good	N	1	2			Х
7	Magnolia grandiflora	Southern Magnolia	25	Good	N	1	2			Х
8	Magnolia grandiflora	Southern Magnolia	27	Good	N	1	2			Х
9	Magnolia grandiflora	Southern Magnolia	20	Good	N	1	2	Girdling root		Х
10	Magnolia grandiflora	Southern Magnolia	29	Good	N	1	2			Х
11	Magnolia grandiflora	Southern Magnolia	21	Good	N	1	2			Х
12	Magnolia grandiflora	Southern Magnolia	37	Good	N	1	2			Х
13	Washingtonia robusta	Fan Palm	40	Good	N	2	3	In N Out Palms		
14	Washingtonia robusta	Fan Palm	38	Good	N	2	3	In N Out Palms		
15	Magnolia grandiflora	Southern Magnolia	30	Good	N	1	2			Х
16	Magnolia grandiflora	Southern Magnolia	29	Good	N	1	2	Form damaged, over- pruned		Х
17	Magnolia grandiflora	Southern Magnolia	26	Good	N	1	2			Х
18	Magnolia grandiflora	Southern Magnolia	18	Good	N	1	2			Х
19	Prunus cerasifera	Purple Leaf Plum	33	Poor	N	1	2	Low Branching, significant dieback, over-pruned		х
20	Magnolia grandiflora	Southern Magnolia	25	Good	N	1	2	Over-pruned		Х
21	Magnolia grandiflora	Southern Magnolia	24	Good	N	1	2			Х
22	Magnolia grandiflora	Southern Magnolia	26	Good	N	1	2			Х

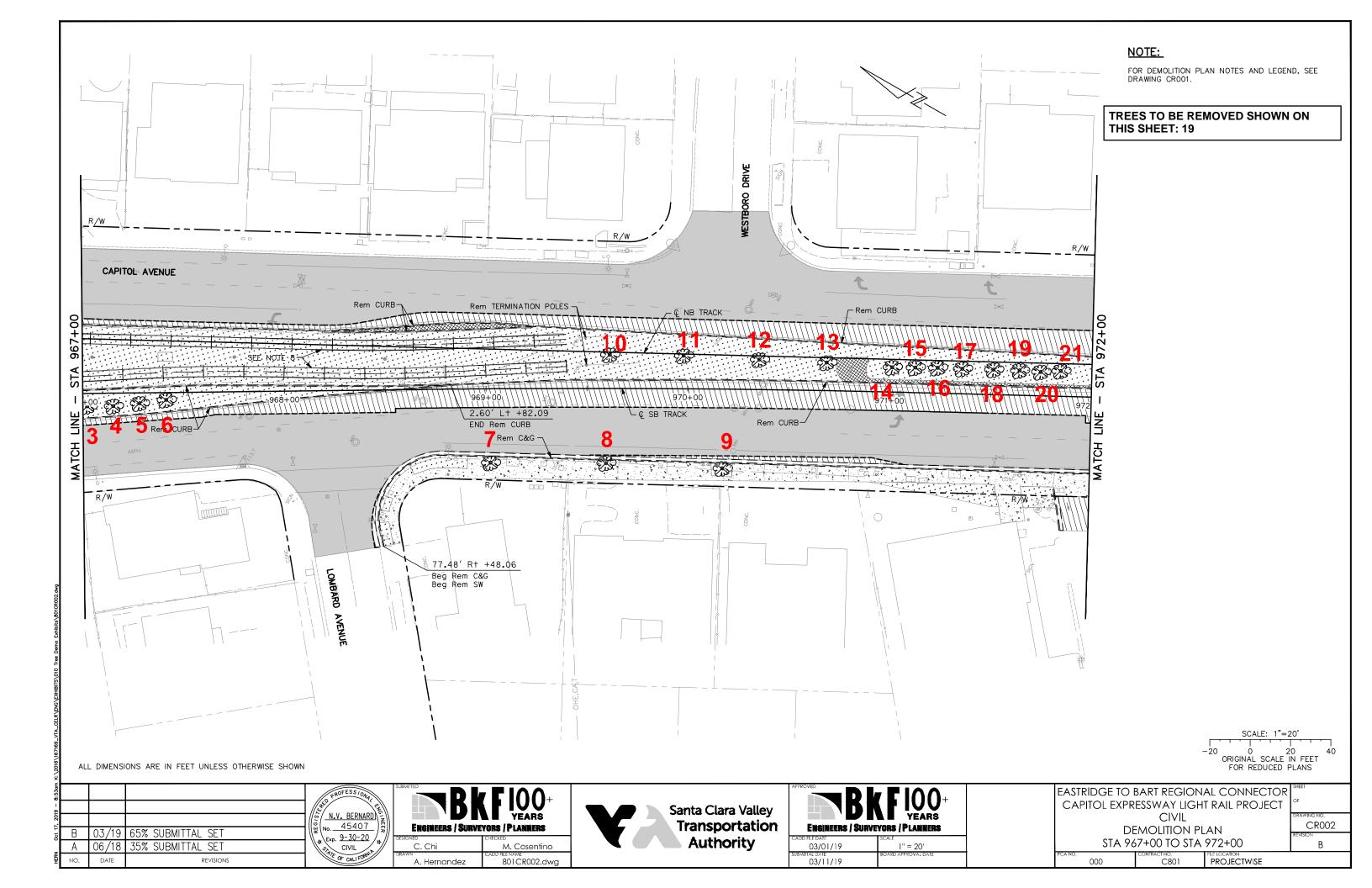
#### EBRC TREE INVENTORY ADDENDUM SPREADSHEET

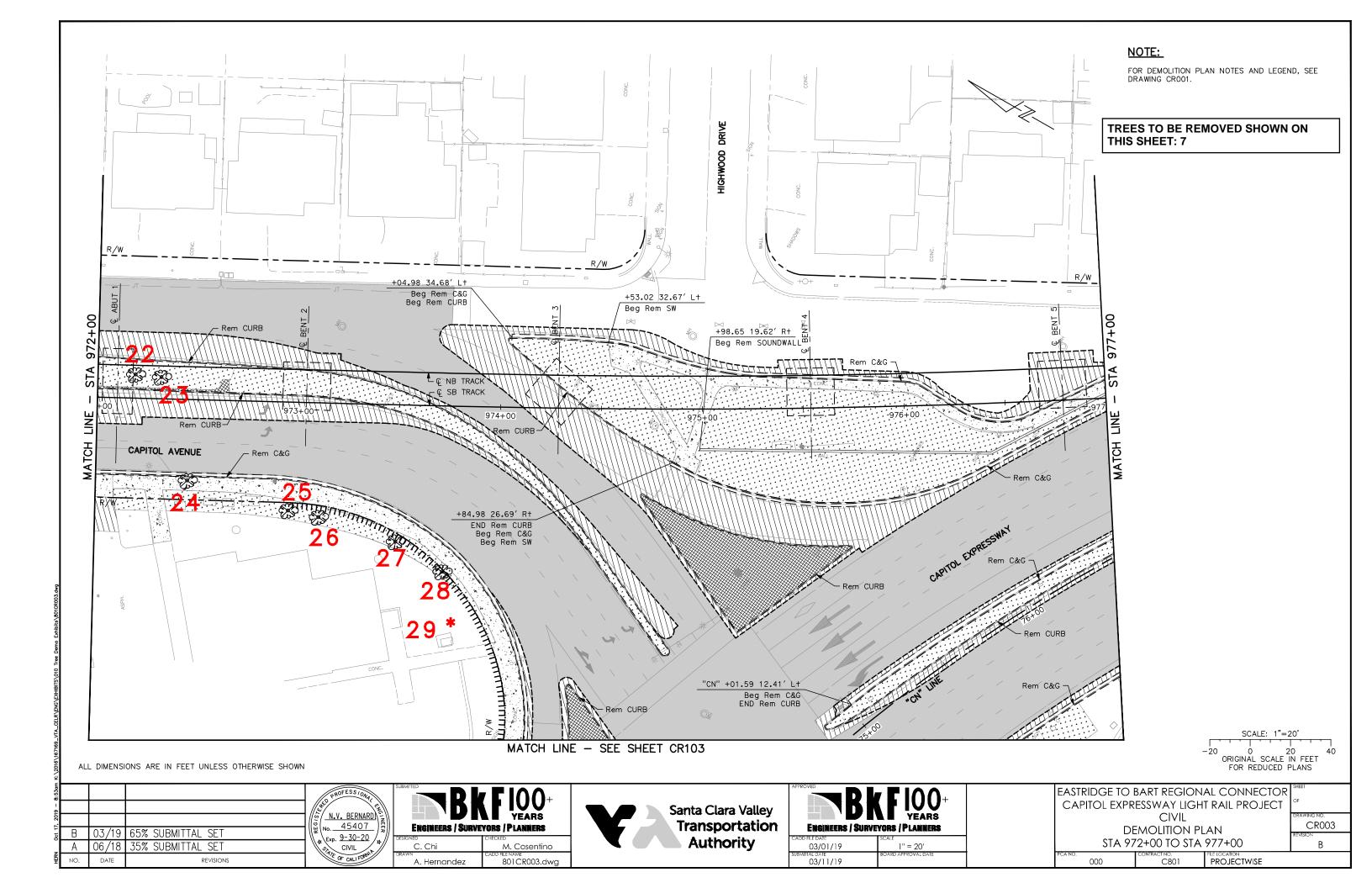
Tree #	Botanical Name	Common Name	CBH (Circumfrence at Breast Height, inches)	Condition	Native?	Mitigation Required (Native)	Mitigation Required (Non-Native)	Comments	Noted in field, Not on Tree Exhibit	Remove (per PG&E Demo Plan)
50	X Chitalpa tashkentensis	Chitalpa	9	Fair	N	1	2			Х
51	X Chitalpa tashkentensis	Chitalpa	14	Good	N	1	2			Х
52	X Chitalpa tashkentensis	Chitalpa	17	Good	N	1	2			Х
53	X Chitalpa tashkentensis	Chitalpa	15	Good	N	1	2			Х
54	X Chitalpa tashkentensis	Chitalpa	12	Good	N	1	2			Х
55	Chilopsis linearis	Desert Willow	17	Fair	N	1	2			Х
56	X Chitalpa tashkentensis	Chitalpa	13	Good	N	1	2			Х
57	Chilopsis linearis	Desert Willow	26	Good	N	1	2	Vigorous, Low branching		Х
58	X Chitalpa tashkentensis	Chitalpa	13	Fair	N	1	2	Basal sprouts		Х
59	X Chitalpa tashkentensis	Chitalpa	14	Good	Ν	1	2			Х
60	X Chitalpa tashkentensis	Chitalpa	15	Fair	Ν	1	2	Basal sprouts		Х
61	X Chitalpa tashkentensis	Chitalpa	13	Good	N	1	2			Х
62	Chilopsis linearis	Desert Willow	18	Good	N	1	2	Low branching		Х
63	Chilopsis linearis	Desert Willow	17	Fair	N	1	2	Low branching, trunk wound		Х
64	No tree root sprouts only					0	0			
65	Chilopsis linearis	Desert Willow	19	Good	N	1	2			Х
66	X Chitalpa tashkentensis	Chitalpa	9	Good	N	1	2			Х
67	Chilopsis linearis	Desert Willow	11	Good	N	1	2	Low branching		Х
68	X Chitalpa tashkentensis	Chitalpa	7	Fair	N	1	2	Low vigor		Х
69	X Chitalpa tashkentensis	Chitalpa	7	Poor	N	1	2	Low vigor		Х
70	Chilopsis linearis	Desert Willow	8	Poor	N	1	2	Root crown/stem failure		Х
71	Chilopsis linearis	Desert Willow	7	Fair	N	1	2	Low vigor		Х
72	Chilopsis linearis	Desert Willow	12	Good	N	1	2	Low branching		Х
73	X Chitalpa tashkentensis	Chitalpa	7	Fair	N	1	2	Low vigor, basal sprouts		

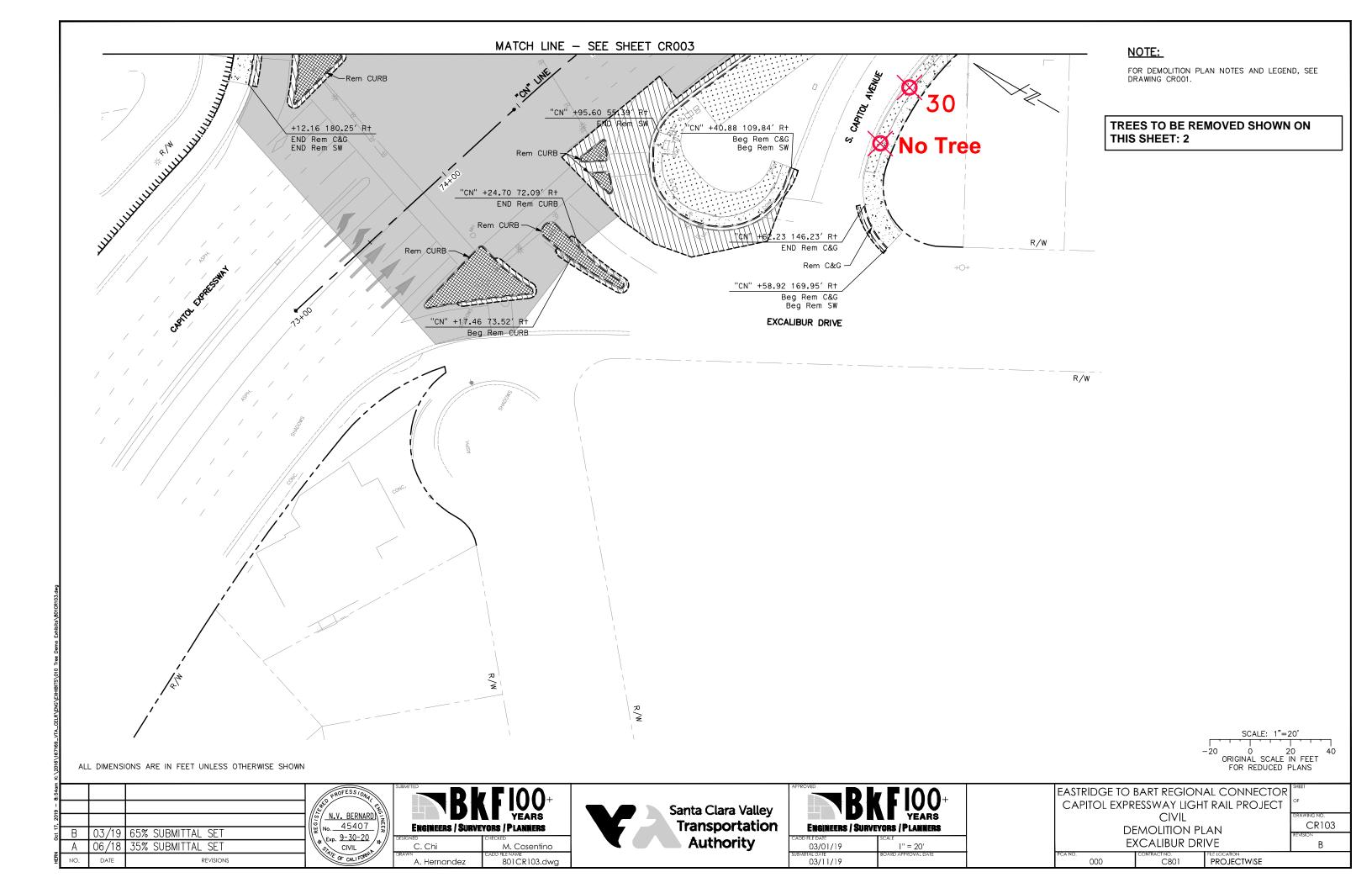
# **Appendix B**

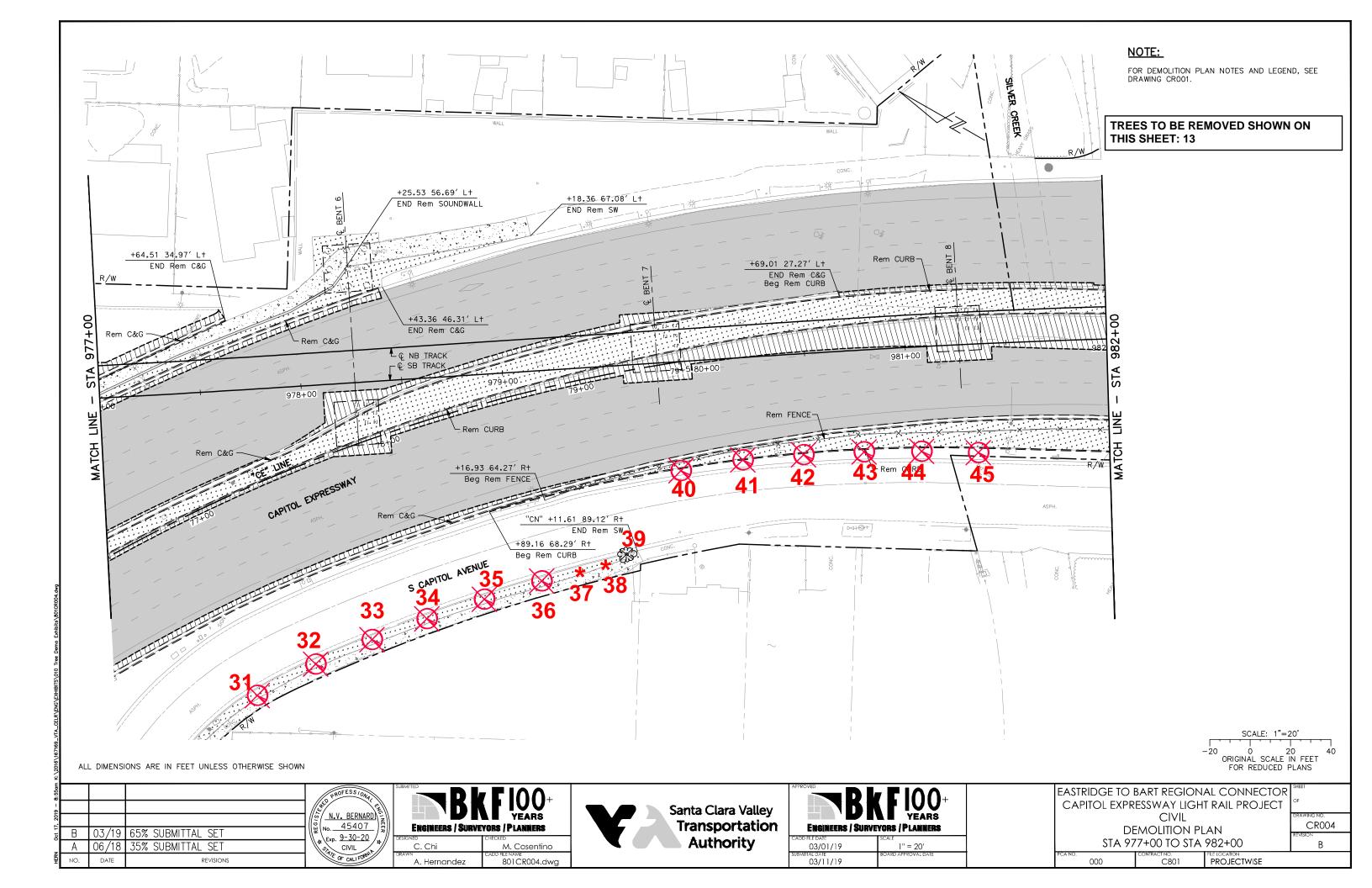
**Excerpt from Tree Inventory (November 4, 2019)** 

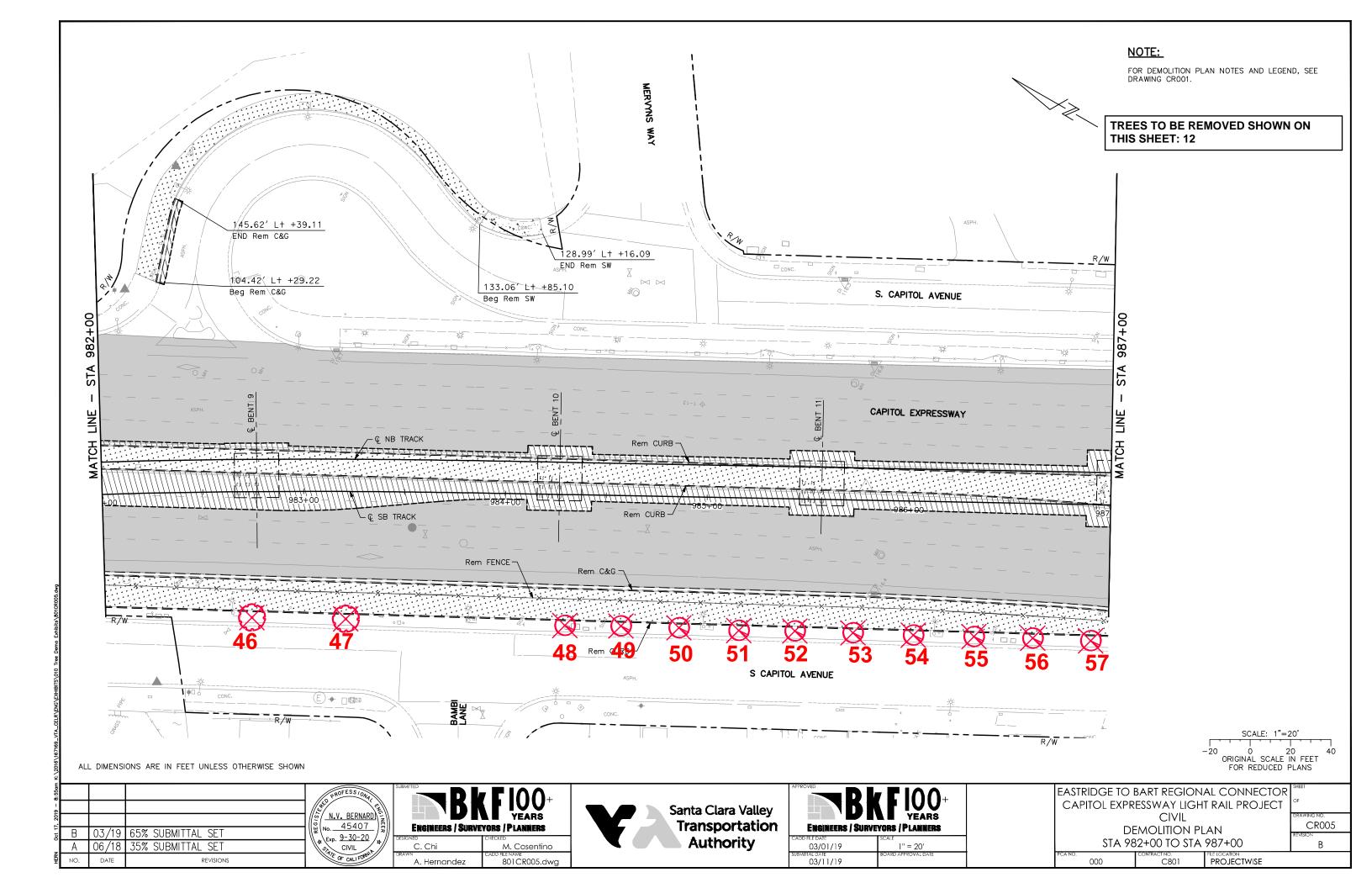


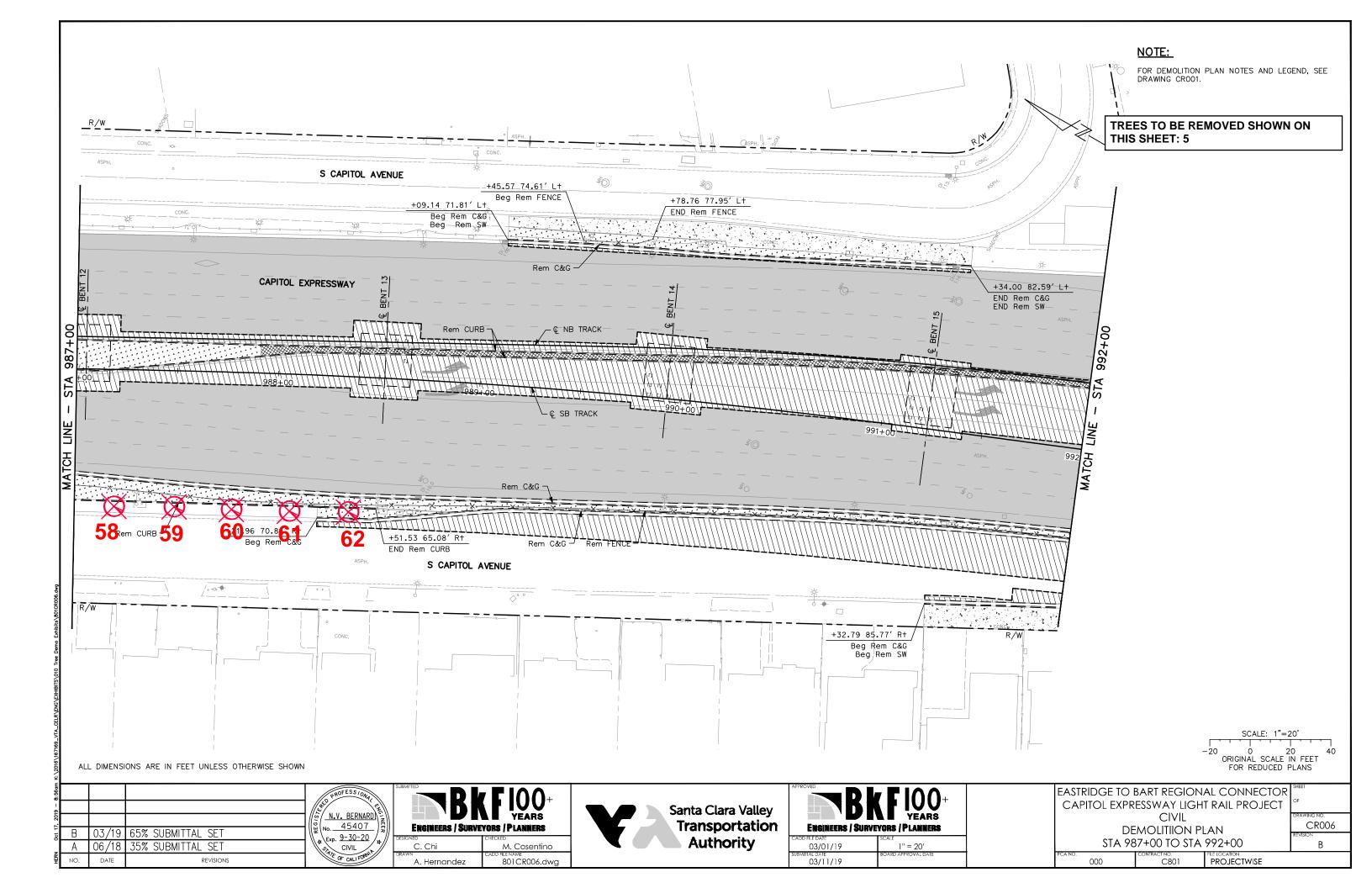


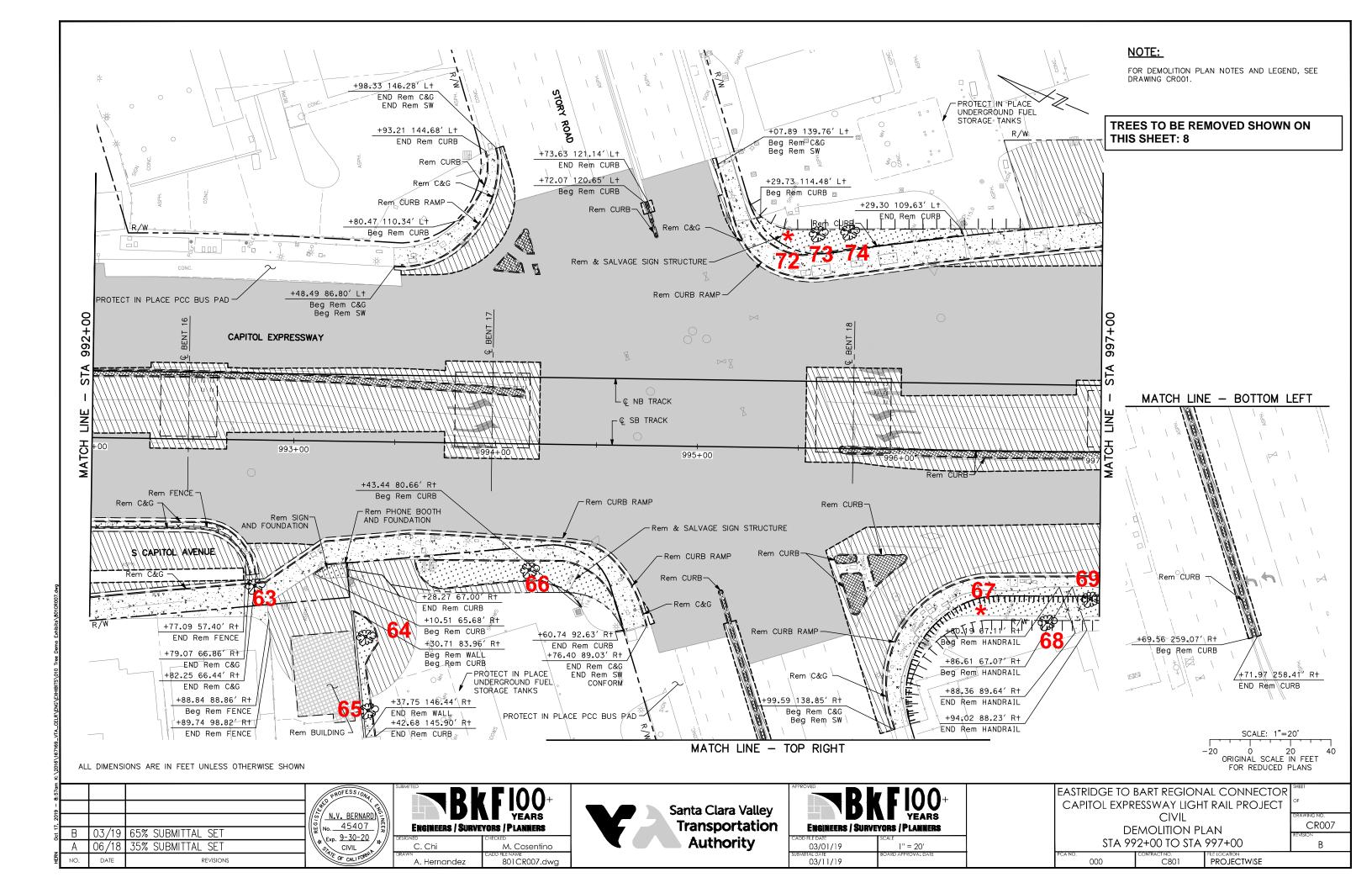


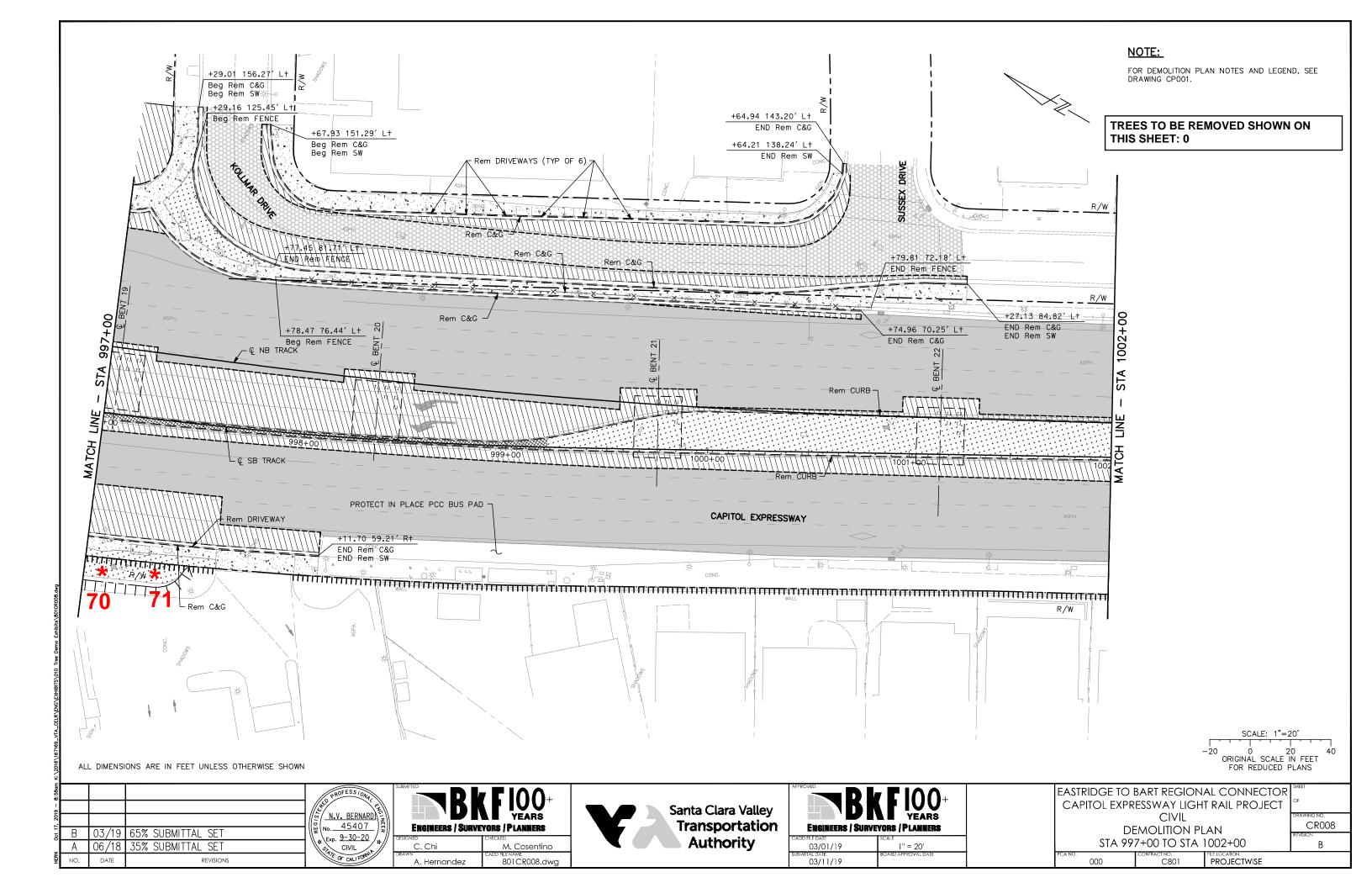


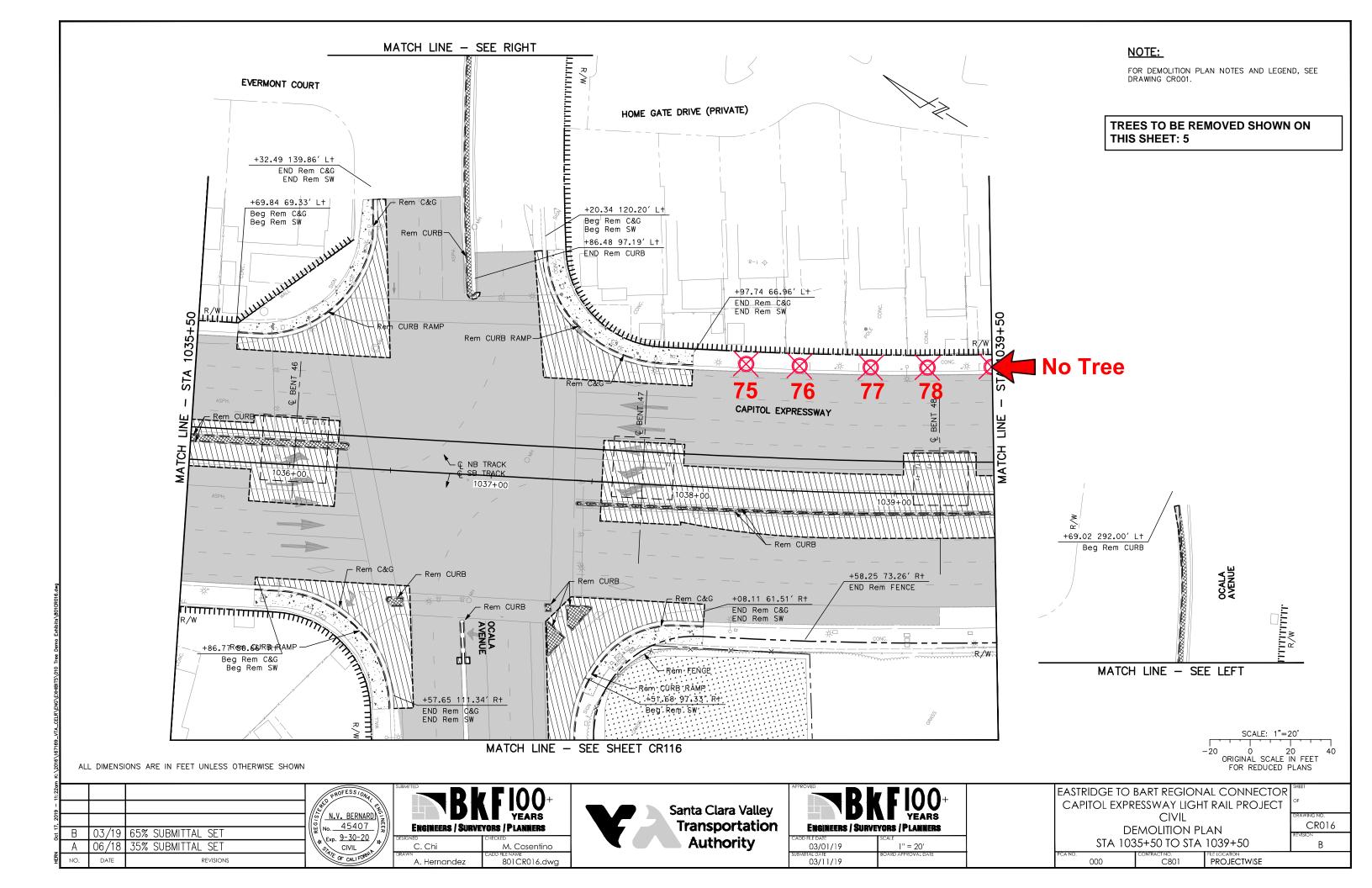


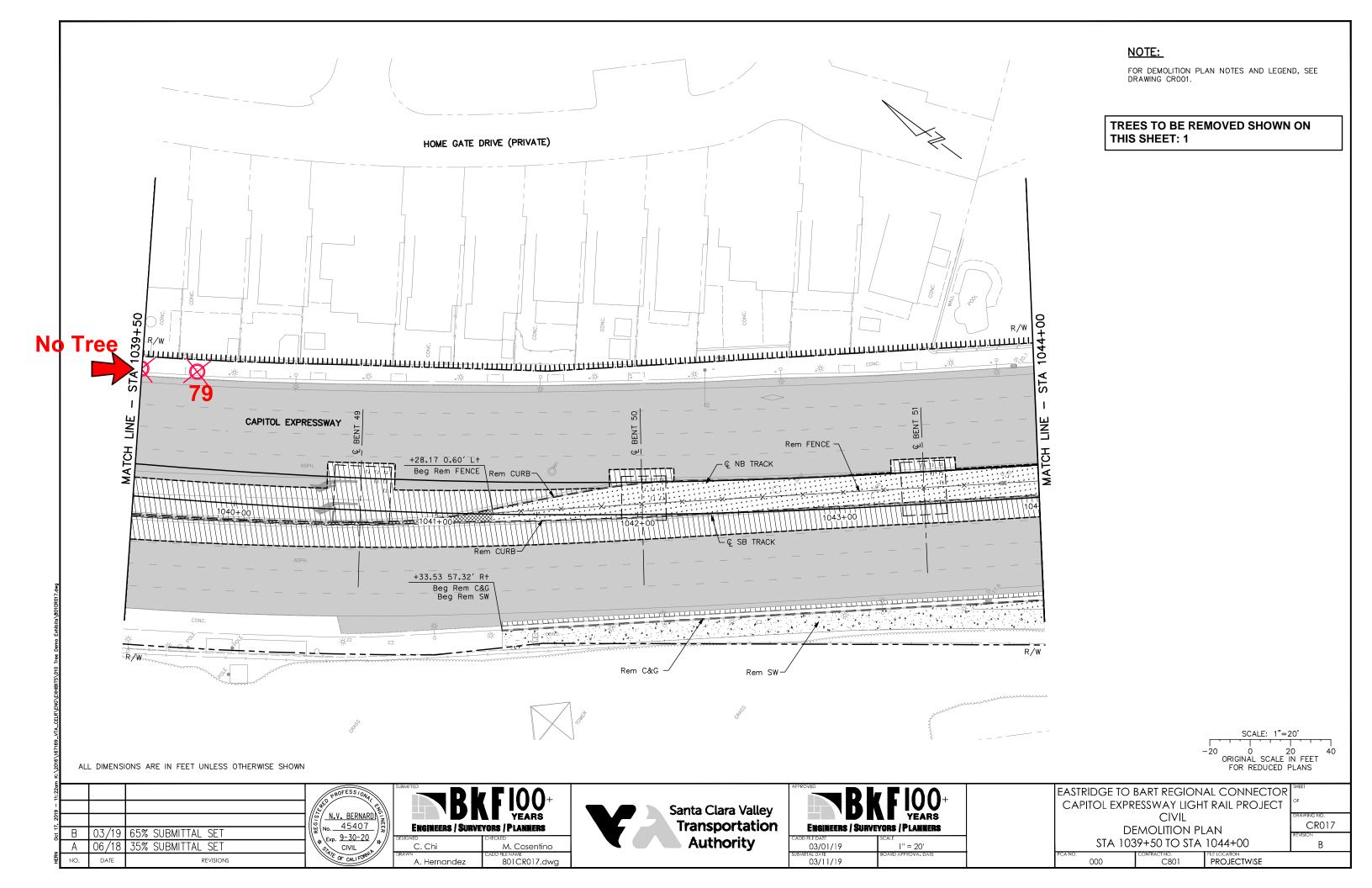


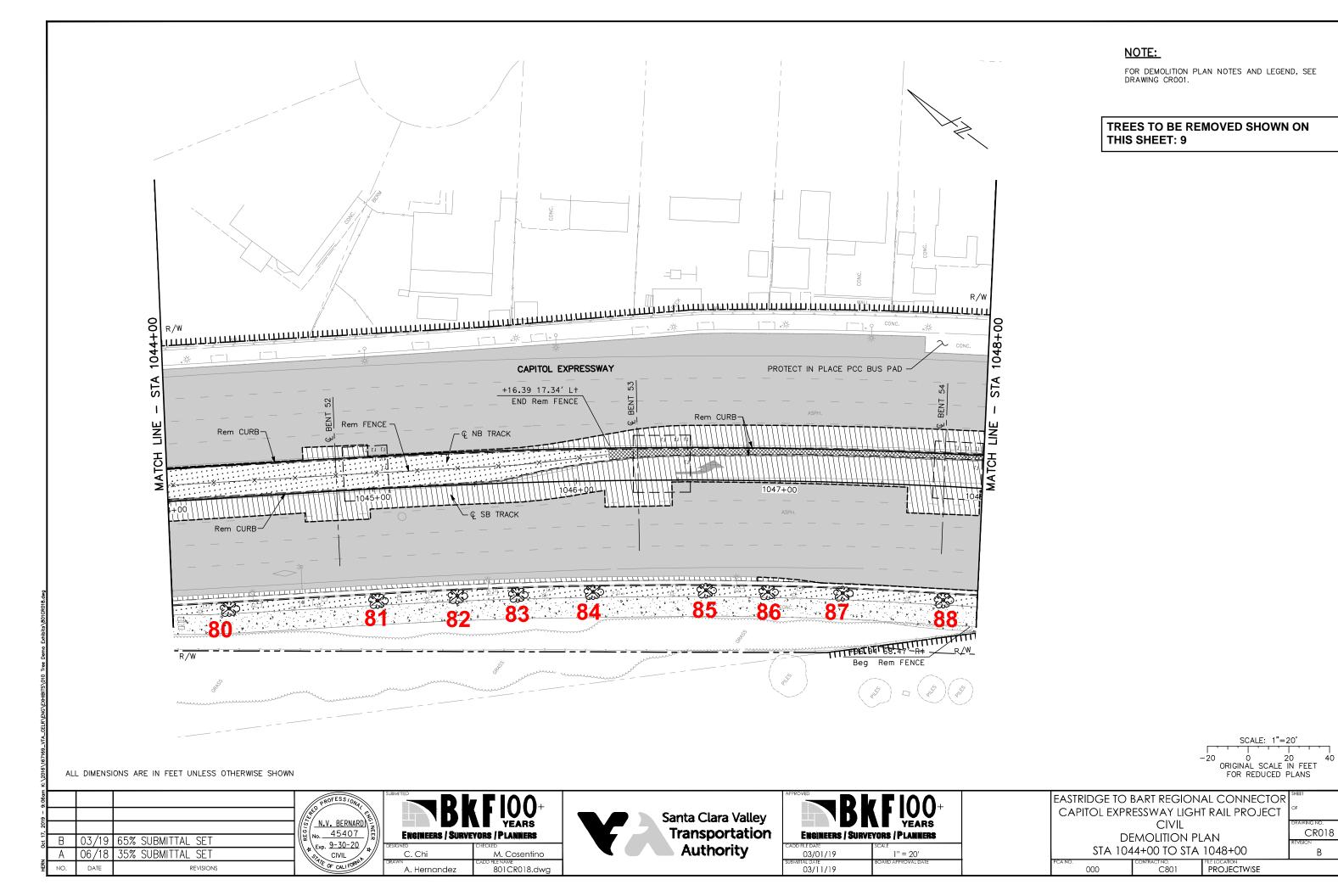


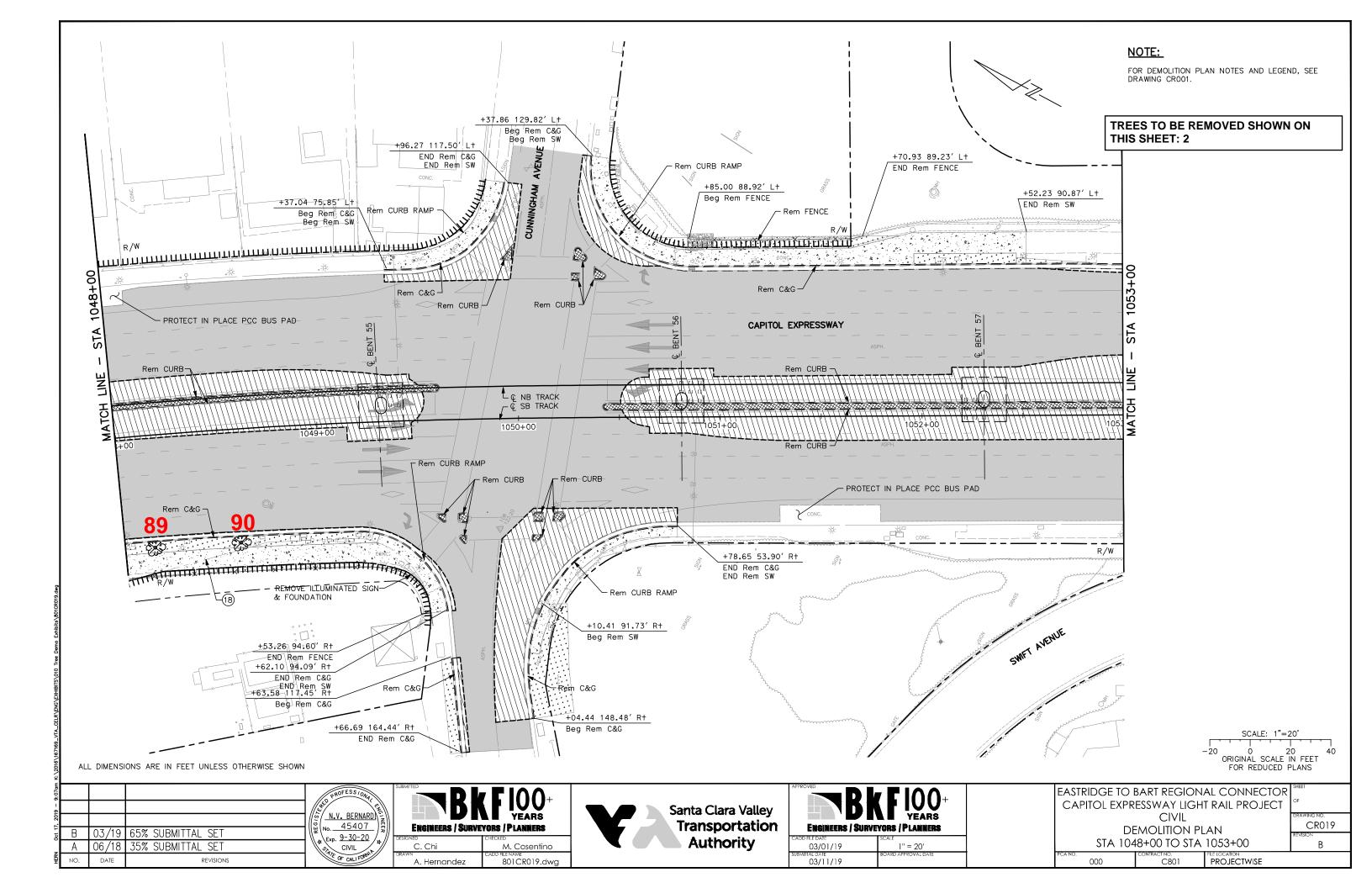


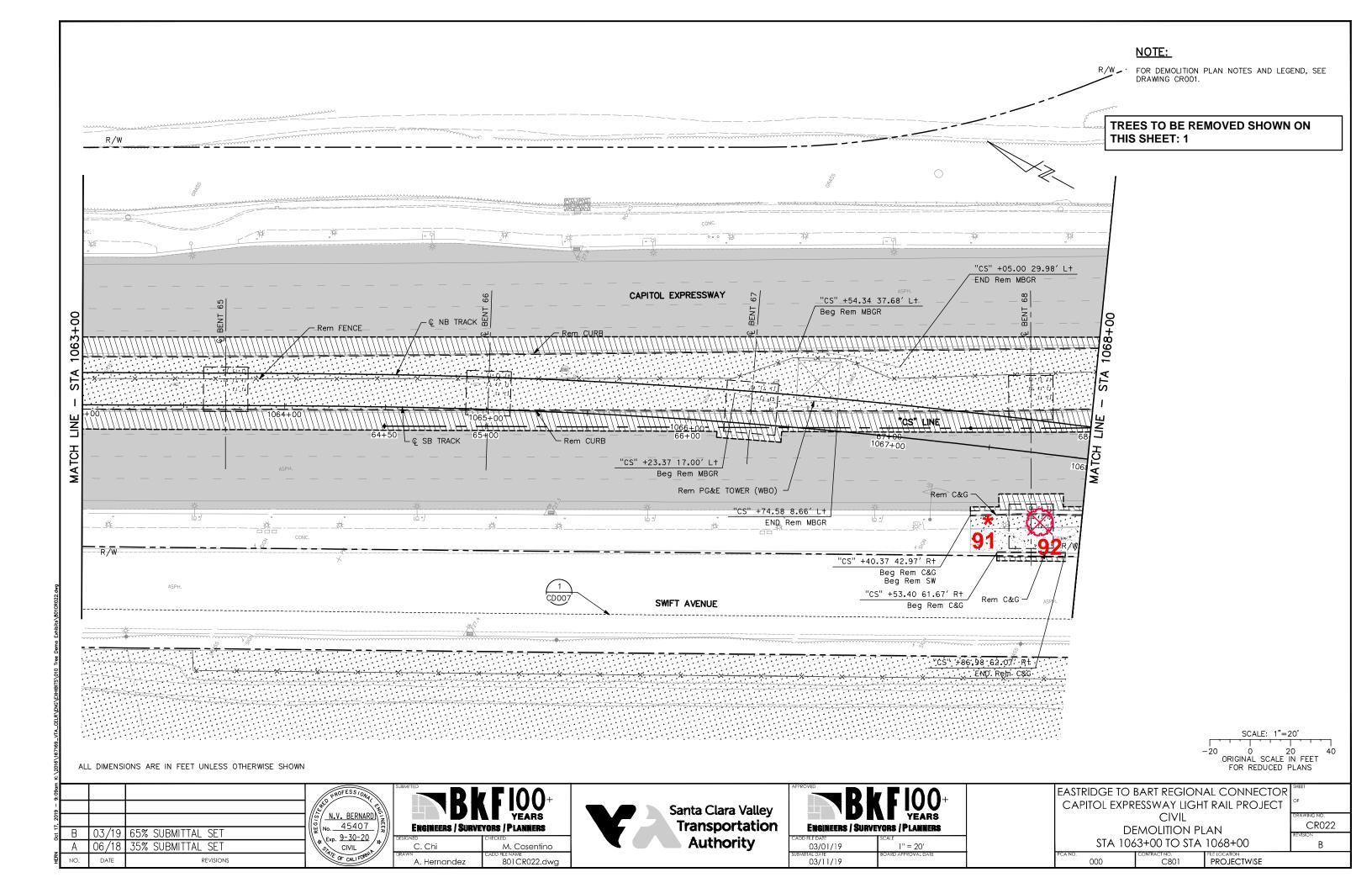


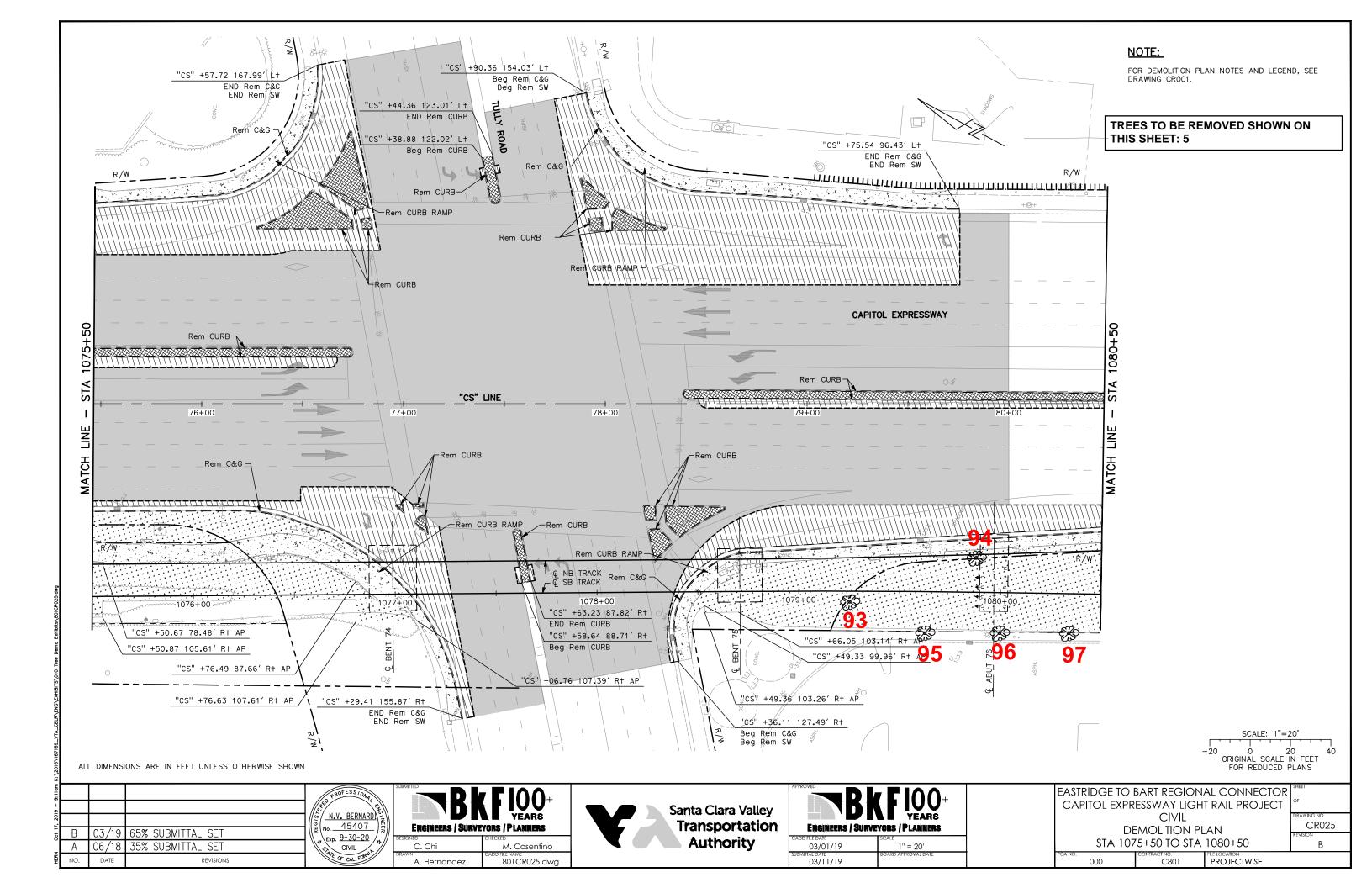


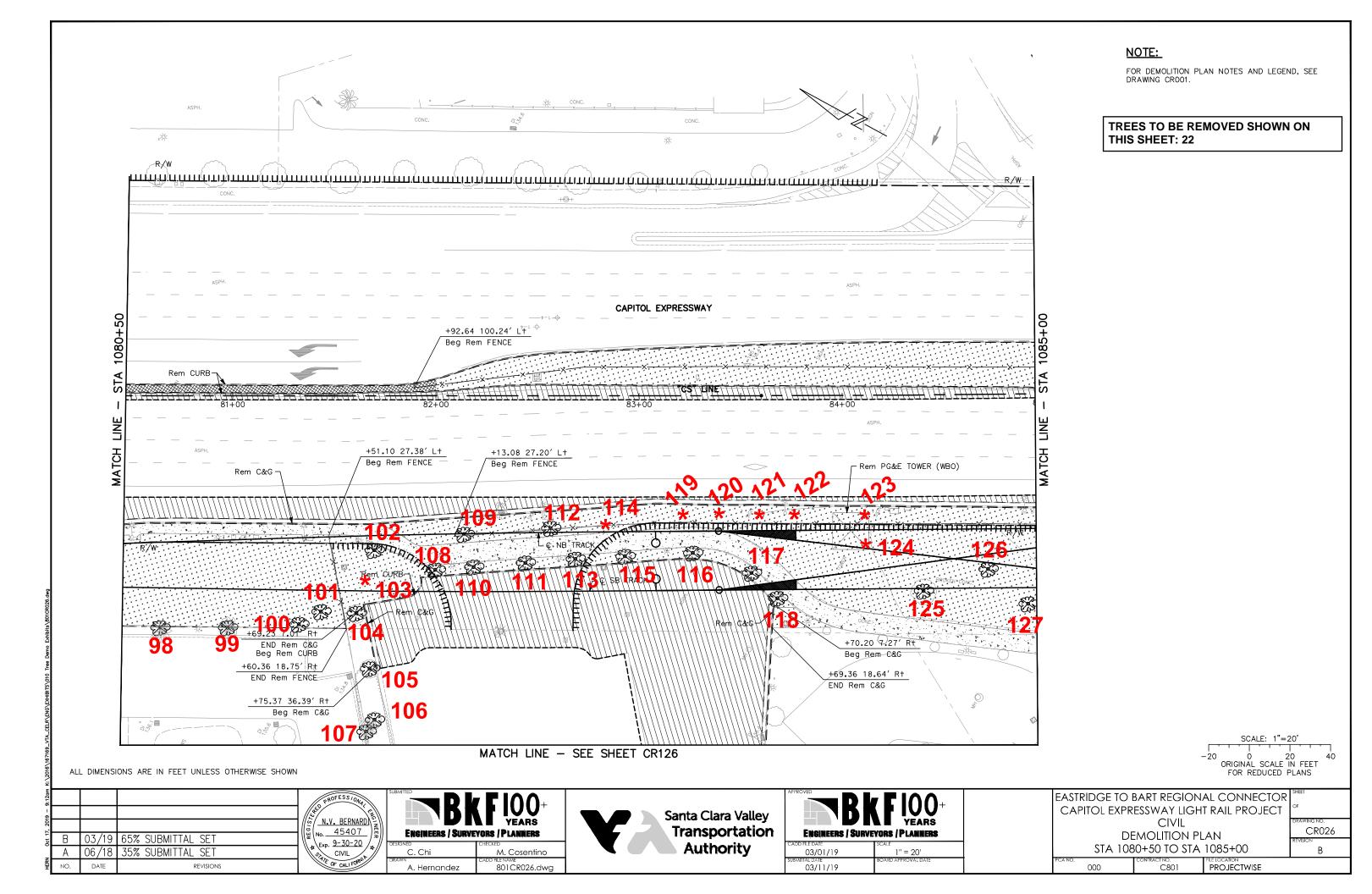


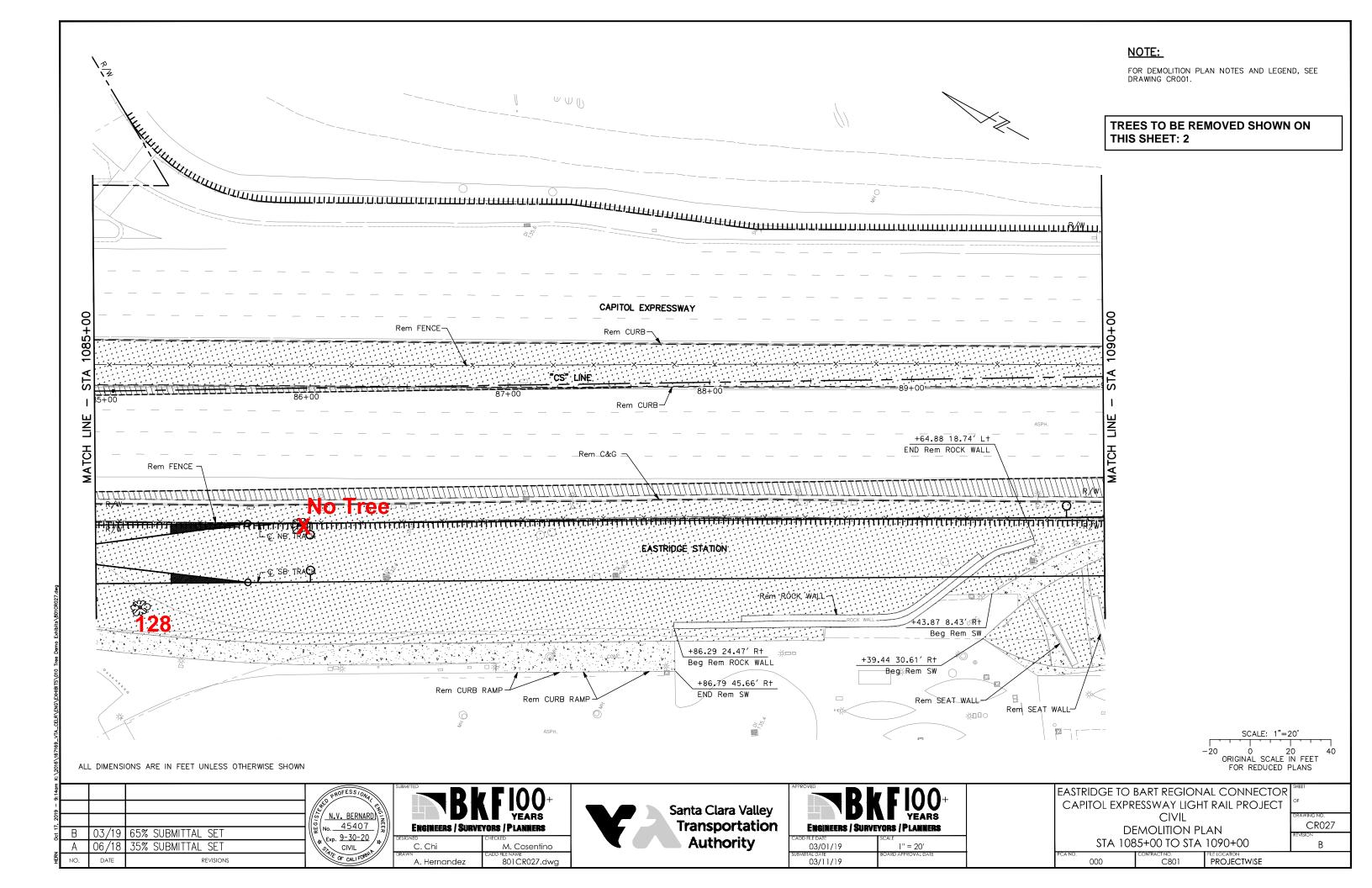


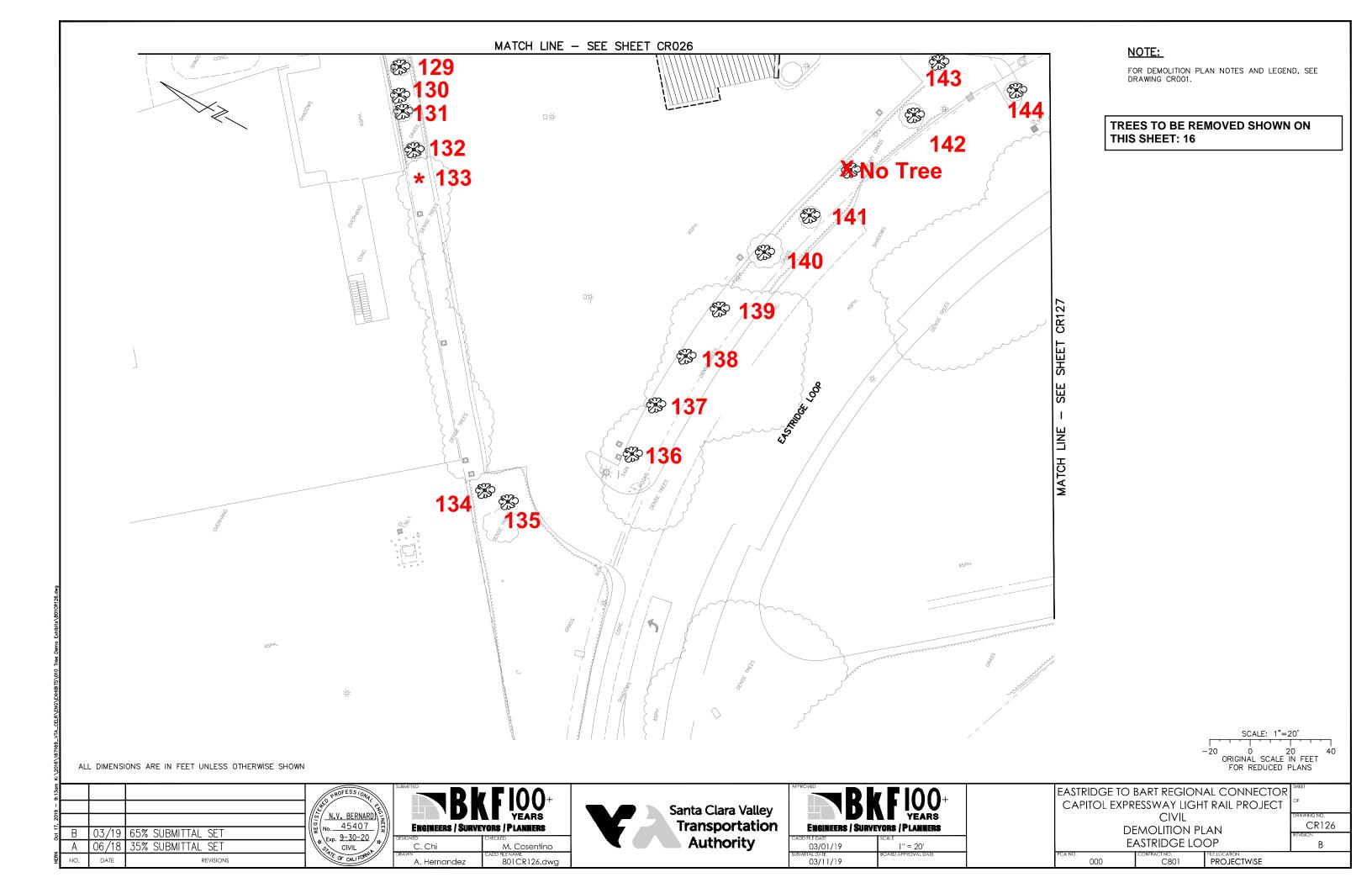












NOTE: FOR DEMOLITION PLAN NOTES AND LEGEND, SEE DRAWING CR001. TREES TO BE REMOVED SHOWN ON THIS SHEET: 2 ու<u>նչառեւ եր արդարան իրա արդարան անտանան արարանան անձան ա</u> CAPITOL EXPRESSWAY Rem FENCE -.92+00 Rem CURB-LINE Rem PG&E TOWER (WBO) MATCH Rem C&G Mignistrum page of the contraction of the contracti L & TAIL TRACK 1094+00 +19.79 14.15' Rt Beg Rem FENCE PROTECT IN PLACE TREE WELLS, Typ G PROTECT IN PLACE
BUS SHELTER, Typ PROTECT IN PLACE CANOPIES, Typ -Rem SEAT WALL 0 20
ORIGINAL SCALE IN FEET
FOR REDUCED PLANS ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN EASTRIDGE TO BART REGIONAL CONNECTOR PROFESS/ON CAPITOL EXPRESSWAY LIGHT RAIL PROJECT Santa Clara Valley N.V. BERNARD CIVIL **Transportation** CR028 45407 **ENGINEERS / SURVEYORS / PLANNERS** ENGINEERS / SURVEYORS / PLANNERS DEMOLITION PLAN 03/19 65% SUBMITTAL SET Exp. 9-30-20 CIVIL **Authority** STA 1090+00 TO STA 1094+50 В 35% SUBMITTAL SET A. Hernandez 801CR028.dwg 03/11/19 PROJECTWISE

Tree #	Botanical Name	Common Name	CBH (Circumfrence at Breast Height)	Condition	Native?	Mitigation Requirement (if replacing w/ native)*	Mitigation Requirement (if replacing w/ non- native)*	Comments	Noted in field, not on demo plan	Remove (per BKF demo plan)
1	Lagerstroemia indica	Crape Myrtle	7"	Good	N	1	2			Х
2	Lagerstroemia indica	Crape Myrtle	10"	Good	N	1	2			Х
3	Lagerstroemia indica	Crape Myrtle	20"	Good	N	1	2			Х
4	Lagerstroemia indica	Crape Myrtle	20"	Good	N	1	2			Х
5	Lagerstroemia indica	Crape Myrtle	20"	Good	N	1	2			Х
6	Lagerstroemia indica	Crape Myrtle	20"	Good	N	1	2			Х
7	Quercus suber	Cork Oak	52"	Good	N	2	3			Х
8	Quercus suber	Cork Oak	24"	Good	N	1	2			Х
9	Pistacia chinensis	Chinese Pistache	6"	Fair	N	1	2			Х
10	Acer rubrum	Red Maple	18"	Good	N	1	2			Х
11	Acer rubrum	Red Maple	12"	Good	N	1	2			Х
12	Acer rubrum	Red Maple	24"	Good	N	1	2			Х
13	Acer rubrum	Red Maple	24"	Good	N	1	2			Х
14	Acer rubrum	Red Maple	12"	Good	N	1	2			Х
15	Lagerstroemia indica	Crape Myrtle	12"	Good	N	1	2			Х
16	Lagerstroemia indica	Crape Myrtle	10"	Good	N	1	2			Х
17	Lagerstroemia indica	Crape Myrtle	6"	Good	N	1	2			Х
18	Pyrus calleryana	Flowering Pear	10"	Fair	N	1	2	Basal damage		Х
19	Lagerstroemia indica	Crape Myrtle	6"	Good	N	1	2			Х
20	Lagerstroemia indica	Crape Myrtle	10"	Good	N	1	2			Х
21	Lagerstroemia indica	Crape Myrtle	6"	Good	N	1	2			Х
22	Pyrus calleryana	Flowering Pear	42"	Fair	N	2	3	Basal damage		Х
23	Lagerstroemia indica	Crape Myrtle	6"	Good	N	1	2			Х
24	Quercus suber	Cork Oak	24"	Fair	N	1	2	Basal damage		Х
25	Fraxinus oxycarpa	Raywood Ash	73"	Good	N	2	3			Х
26	Fraxinus oxycarpa	Raywood Ash	73"	Good	N	2	3			Х
27	Fraxinus oxycarpa	Raywood Ash	60"	Good	N	2	3			Х
28	Fraxinus oxycarpa	Raywood Ash	36"	Good	N	1	2			Х
29	Pyrus calleryana	Flowering Pear	36"	Good	N	1	2		Х	

	NO TREE									Х
30	Chitalpa tashketensis	Chitalpa	15"	Fair	N	1	2	Stressed		Х
31	Platanus acerifolia	London Plane	24"	Good	N	1	2			Х
32	Platanus acerifolia	London Plane	24"	Good	N	1	2			Х
33	Platanus acerifolia	London Plane	24"	Good	N	1	2			Х
34	Platanus acerifolia	London Plane	24"	Good	N	1	2			Х
35	Platanus acerifolia	London Plane	24"	Good	N	1	2			Х
36	Platanus acerifolia	London Plane	24"	Good	N	1	2			Х
37	Albizzia julibrissin	Silk Tree	24"	Fair	N	1	2	Poor shape	Х	
38	Prunus serrulata	Flowering Cherry	24"	Fair	N	1	2	Poor shape	Х	
39	Prunus cerasifera	Flowering Plum	18"	Good	N	1	2	Narrow Strip		Х
40	Platanus acerifolia	London Plane	21"	Good	N	1	2			Х
41	Platanus acerifolia	London Plane	24"	Good	N	1	2			Х
42	Platanus acerifolia	London Plane	24"	Good	N	1	2			Х
43	Platanus acerifolia	London Plane	30"	Good	N	1	2			Х
44	Platanus acerifolia	London Plane	30"	Good	N	1	2			Х
45	Platanus acerifolia	London Plane	30"	Good	N	1	2			Х
46	Quercus agrifolia	Coast Live Oak	10"	Good	Y	2	2	CA Native		Х
47	Quercus agrifolia	Coast Live Oak	15"	Good	Y	2	2	CA Native		X
48	Platanus acerifolia	London Plane	24"	Good	N	1	2			Х
49	Platanus acerifolia	London Plane	15"	Good	N	1	2			Х
50	Platanus acerifolia	London Plane	12"	Good	N	1	2			Х
51	Platanus acerifolia	London Plane	12"	Good	N	1	2			Х
52	Platanus acerifolia	London Plane	12"	Good	N	1	2			Х
53	Platanus acerifolia	London Plane	15"	Good	N	1	2			Х
54	Platanus acerifolia	London Plane	12"	Good	N	1	2			Х
55	Platanus acerifolia	London Plane	18"	Good	N	1	2			Х
56	Platanus acerifolia	London Plane	18"	Good	N	1	2			Х
57	Platanus acerifolia	London Plane	18'	Good	N	1	2			Х
58	Platanus acerifolia	London Plane	12"	Good	N	1	2			Х
59	Platanus acerifolia	London Plane	9"	Good	N	1	2			Х
60	Platanus acerifolia	London Plane	18"	Good	N	1	2			Х

	- K II									.,
61	Platanus acerifolia	London Plane	18"	Good	N	1	2			X
	Platanus acerifolia	London Plane	18"	Good	N	1	2			X
63	Pistacia chinensis	Chinese Pistache	54"	Good	N	2	3			X
64	Pistacia chinensis	Chinese Pistache	48"	Good	N	2	3			Х
65	Pistacia chinensis	Chinese Pistache	42"	Good	N	2	3			Х
66	Pistacia chinensis	Chinese Pistache	24"	Good	N	1	2			Х
67	Pistacia chinensis	Chinese Pistache	24"	Good	N	1	2		X	
68	Pistacia chinensis	Chinese Pistache	24"	Good	N	1	2			Х
69	Pistacia chinensis	Chinese Pistache	24"	Good	N	1	2			X
70	Pistacia chinensis	Chinese Pistache	18"	Good	N	1	2		Х	
71	Pistacia chinensis	Chinese Pistache	24"	Good	N	1	2		Х	
72	Liquidamber styraciflua	Sweet Gum	54"	Fair	N	2	3		X	
73	Liquidamber styraciflua	Sweet Gum	72"	Fair	N	2	3			Х
74	Liquidamber styraciflua	Sweet Gum	54"	Fair	N	2	3			X
75	Chitalpa tashketensis	Chitalpa	9"	Good	N	1	2			Х
76	Chitalpa tashketensis	Chitalpa	6"	Good	N	1	2			Х
77	Chitalpa tashketensis	Chitalpa	9"	Good	N	1	2			Х
78	Chitalpa tashketensis	Chitalpa	9"	Good	N	1	2			Х
	NO TREE									Х
79	Chitalpa tashketensis	Chitalpa	9"	Good	N	1	2			Х
80	Acer rubrum	Red Maple	9"	Good	N	1	2			Х
81	Acer rubrum	Red Maple	9"	Good	N	1	2			Х
82	Acer rubrum	Red Maple	9"	Good	N	1	2			Х
83	Acer rubrum	Red Maple	9"	Good	N	1	2			Х
84	Acer rubrum	Red Maple	9"	Good	N	1	2			Х
85	Acer rubrum	Red Maple	9"	Good	N	1	2			Х
86	Acer rubrum	Red Maple	9"	Good	N	1	2			Х
87	Acer rubrum	Red Maple	9"	Good	N	1	2			Х
88	Acer rubrum	Red Maple	9"	Good	N	1	2			Х
89	Acer rubrum	Red Maple	9"	Good	N	1	2			Х
90	Acer rubrum	Red Maple	6"	Good	N	1	2			Х
91	Quercus agrifolia	Coast Live Oak	3"	Fair	Υ	2	2	CA Native	Х	

92	Quercus agrifolia	Coast Live Oak	3"	Fair	Υ	2	2	CA Native		Х
93	Washingtonia robusta	Mexican Fan Palm	42"	Fair	N	2	3			Х
94	Schinus molle	California Pepper	68"	Good	N	2	3			Х
95	Washingtonia robusta	Mexican Fan Palm	48'	Fair	N	2	3			Х
96	Washingtonia robusta	Mexican Fan Palm	48"	Fair	N	2	3			X
97	Washingtonia robusta	Mexican Fan Palm	48"	Fair	N	2	3			X
98	Washingtonia robusta	Mexican Fan Palm	48"	Fair	N	2	3			X
99	Washingtonia robusta	Mexican Fan Palm	48"	Fair	N	2	3			X
100	Eucalyptus sp.	Eucalyptus	60"	Fair	N	2	3	Basal damage		X
101	Washingtonia robusta	Mexican Fan Palm	48"	Fair	N	2	3			Х
102	Pyrus calleryana	Flowering Pear	12"	Poor	N	1	2	Dead		Х
103	Acer rubrum	Red Maple	12"	Good	N	1	2		Χ	
104	Acer rubrum	Red Maple	12"	Good	N	1	2			Х
105	Acer rubrum	Red Maple	12"	Good	N	1	2			Х
106	Acer rubrum	Red Maple	12"	Good	N	1	2			Х
107	Washingtonia robusta	Mexican Fan Palm	36"	Good	N	1	2			Х
108	Pyrus calleryana	Flowering Pear	12"	Fair	N	1	2			Х
109	Eucalyptus sp.	Eucalyptus	12"	Fair	N	1	2			Х
110	Pyrus calleryana	Flowering Pear	12"	Fair	N	1	2			Х
111	Pyrus calleryana	Flowering Pear	12"	Poor	N	1	2	Stressed		Х
112	Eucalyptus sp.	Eucalyptus	12"	Fair	N	1	2			Х
113	Pyrus calleryana	Flowering Pear	12"	Poor	N	1	2	Dead		Х
114	Eucalyptus sp.	Eucalyptus	18'	Good	N	1	2		Χ	
115	Pyrus calleryana	Flowering Pear	9"	Poor	N	1	2	Dead		Х
116	Pyrus calleryana	Flowering Pear	9"	Good	N	1	2			Х
117	Pyrus calleryana	Flowering Pear	9"	Good	N	1	2			Х
118	Pyrus calleryana	Flowering Pear	12"	Good	N	1	2			Х
119	Ulmus americana	American Elm	24"	Fair	N	1	2	Multi	Χ	
120	Ulmus americana	American Elm	24"	Fair	N	1	2	Multi	Χ	
121	Olea europaea	Olive	12"	Good	N	1	2	Multi	Χ	
122	Olea europaea	Olive	12"	Good	N	1	2	Multi	Χ	
123	Olea europaea	Olive	12"	Good	N	1	2	Multi	Χ	

124 Olea europaea	Olive	12"	Good	N	1	2	Multi	Х	
125 Parksonia aculea		18"	Good	N	1	2			Х
126 Parksonia aculea		18"	Good	N	1	2			Х
127 Parksonia aculea		18"	Good	N	1	2			Х
128 Parksonia aculea		18'	Good	N	1	2			Х
NO TREE									Х
129 Acer rubrum	Red Maple	12"	Good	N	1	2			Х
130 Washingtonia rol	ousta Mexican Fan Palm	24"	Good	N	1	2			Х
131 Washingtonia rol	ousta Mexican Fan Palm	24"	Good	N	1	2			Х
132 Acer rubrum	Red Maple	12"	Good	N	1	2			Х
133 Acer rubrum	Red Maple	12'	Poor	N	1	2	Dead	Х	
134 Acer rubrum	Red Maple	12"	Good	N	1	2			Х
135 Pinus canariensi	S Canary Island Pine	30"	Good	N	1	2			Х
136 Eucalyptus sp.	Eucalyptus	72"	Fair	N	2	3			X
137 Acer rubrum	Red Maple	9"	Poor	N	1	2	Dead		Х
138 Eucalyptus sp.	Eucalyptus	72"	Fair	N	2	3			X
139 Eucalyptus nicho	lii Peppermint Eucalyptus	30"	Fair	N	1	2			Х
140 Acer rubrum	Red Maple	9"	Good	N	1	2			Х
141 Acer rubrum	Red Maple	9"	Good	N	1	2			Х
NO TREE									Х
142 Acer rubrum	Red Maple	9"	Good	N	1	2			Х
143 Acer rubrum	Red Maple	9"	Poor	N	1	2	Dead		Х
144 Acer rubrum	Red Maple	9"	Good	N	1	2			Х
145 Parksonia aculea	ta Mexican Palo Verde	18"	Good	N	1	2			Х
146 Parksonia aculea	ta Mexican Palo Verde	12"	Good	N	1	2		Χ	
147 Parksonia aculea	ta Mexican Palo Verde	18"	Good	N	1	2			Х
148 Washingtonia rol	ousta Mexican Fan Palm	36"	Good	N	1	2	Not on plan		?
149 Washingtonia rol	ousta Mexican Fan Palm	36"	Good	N	1	2	Not on plan		?
	0005				175	320			
Requirements pe	r 2005								

## **Appendix C**

**Summary of Significant Environment Impacts and Mitigation Measures** 

### Appendix C Summary of Significant Environmental Impacts and Mitigation Measures

			Level of S	Significance <sup>2</sup>	
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Transportation (SEIR-2)					
Impact TRN-2a (Traffic Impact at Capitol Expressway/ Story Road in 2018 (now 2023))	No mitigation is feasible	Significant and Unavoidable	Significant and Unavoidable	Less than Significant with Mitigation	Significant and Unavoidable
Impact TRN-2b (Traffic Impact at Capitol Expressway/Ocala Avenue in 2018 (now 2023))	No mitigation is feasible	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
Impact TRN-2c (Traffic Impact at Capitol Expressway/ Tully Road in 2018 (now 2023))	Mitigation Measure TRN-2c (Maintain eight lanes on Capitol Expressway at Tully Road Intersection	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	Not evaluated
Impact TRN-8b (Traffic Impact at Capitol Expressway/ Story road in 2025 (now 2043))	No mitigation is feasible	Significant and Unavoidable	Significant and Unavoidable	N/A	Significant and Unavoidable
Impact TRN-8c (Traffic Impact at Capitol Expressway/ Ocala Avenue in 2025 (now 2043))	No mitigation is feasible	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
Impact TRN-8d (Traffic Impact at Capitol Expressway/Tully Road in 2025 (now 2043))	Mitigation Measure TRN-2c (Maintain eight lanes on Capitol Expressway at Tully Road Intersection)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	Not evaluated

			Level of S	Significance <sup>2</sup>	
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Impact TRN (CON) -1 (Long-Term Street or Lane Closure)	Mitigation Measures TRN (CON)-2a (Prepare Traffic Management Plan), TRN (CON)-2b (Inform Public of Traffic Detours), and TRN (CON)-2c (Inform Public of Transit Service Changes)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Significant and Unavoidable
Impact TRN (CON)-2 (Long-Term Loss of Parking or Access Essential for Business Operations)	Mitigation Measures TRN (CON)-2a (Prepare Traffic Management Plan), TRN (CON)-2b (Inform Public of Traffic Detours), and TRN (CON)-2c (Inform Public of Transit Service Changes)	Less than Significant with Mitigation			
Air Quality and Climate C	Change (SEIR-2)			•	
Impact AQ (CON)-1 (Temporary Increase in Construction-Related Emissions during Grading and Construction Activities)	Mitigation Measures AQ (CON)-1 (BAAQMD's BMPs to reduce particulate matter emissions from construction activities) and AQ (CON)-2 (BAAQMD's BMPs to reduce GHG emissions from construction equipment) and AQ (CON)-3 use Tier 3 or Tier 4 equipment where possible.	Less than Significant with Mitigation			
Impact AQ (CON)-3 (Cumulative PM2.5 Concentrations During Construction)	Mitigation Measures CON-1 (AQ) (BAAQMD's BMPs to reduce particulate matter emissions from construction activities) and CON-2 (AQ)	Not evaluated	Not evaluated	Not evaluated	Significant and Unavoidable

			Level of S	Significance <sup>2</sup>	
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
	(BAAQMD's BMPs to reduce GHG emissions from construction equipment) and AQ (CON)-3 (Use Tier 3 or Tier 4 equipment where possible).				
Biological Resources (Sec	ond Subsequent IS)				
Impact BIO-7 (Permanent Loss of Habitat and Disturbance to Species)	Mitigation Measure BIO-7 (Conduct Preconstruction Surveys for Western Burrowing Owls and Implement Measures to Avoid or Minimize Adverse Effects if Owls are Present)	Less than Significant with Mitigation			
Impact BIO-8 (Temporary Disturbance of Riparian Forest)	Mitigation Measures BIO-8a Conduct Preconstruction Surveys to Identify Environmentally Sensitive habitat areas) and BIO-8b (Compensate for Disturbed Riparian Forest)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	N/A
Impact BIO-10 (Temporary Degradation of Water Quality)	Mitigation Measure BIO-10 (Implement Water Quality Measures)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	N/A
Impact BIO-11 (Loss or Disturbance of California Red-Legged Frog Habitat)	Mitigation Measures BIO- 11a (Avoid and Minimize Effects to California Red- Legged Frog) and BIO-11b (Compensate for Loss of Aquatic Habitat for	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	N/A

			Level of Si	ignificance <sup>2</sup>	
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
	California Red-Legged Frog)				
Impact BIO-12 (Permanent Loss of Aquatic Habitat, Temporary Disturbance of Riparian Habitat, and Temporary Disturbance of Southwestern Pond Turtle)	Mitigation Measure BIO-12 (Conduct Preconstruction Surveys for and Implement Measures to Avoid or Minimize Adverse Effects to Southwestern Pond Turtles if Present)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	Less than Significant with Mitigation
Impact BIO-14 (Temporary Disturbance of Nesting Raptors)	Mitigation Measures BIO- 14a (Conduct a Preconstruction Survey for Nesting Raptors) and BIO- 14b (Avoid Active Raptor Nests)	Less than Significant with Mitigation			
Impact BIO-15 (Temporary Disturbance to Nesting Habitat for Migratory Birds)	Mitigation Measure BIO-15 (Conduct Preconstruction Surveys for Nesting Migratory Birds and Stop Construction until the Young have Fledged or the Nest is Removed in Accordance with CDFG)	Less than Significant with Mitigation			
Impact BIO-18 (Loss of Trees)	Mitigation Measure BIO-18a (Conduct a Tree Survey) and BIO-18b (Replace Trees)	Less than Significant with Mitigation			

			Level of S	Significance <sup>2</sup>	
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Cultural Resources (Secon	nd Subsequent IS)				
Impact CR-5 (Direct or Indirect Impacts to an Archaeological Resource)	Mitigation Measure CR-5a (Develop and Implement a Historic Properties Treatment Plan Prior to Construction Activities)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	No Impact (with inclusion of standard practice procedures)
Energy (Second Subseque	nt IS)				
Impact E (CON)-1 (Consumption of Nonrenewable Energy Resources in a Wasteful, Inefficient, and/or Unnecessary Manner from Project Construction)	Mitigation Measure E (CON)-1 (Adopt Energy Conservation Measures)	Less than Significant with Mitigation			
Environmental Justice (SI	EIR-2)				
Impact EJ-1 (Environmental Justice)	No mitigation is feasible	No Impact	Significant and Unavoidable	N/A	Significant and Unavoidable
Geology, Soils, and Seismi	icity (Second Subsequent IS)				
Impact GEO-4 (Risk Caused by Strong Seismic Ground Shaking)	Mitigation Measure GEO-4 (Incorporate Caltrans Seismic Design Criteria)	Less than Significant with Mitigation			
Impact GEO-5 (Risk Caused by Seismic- Related Ground Failure, Including Liquefaction)	Mitigation Measure GEO-5 (Incorporate Liquefaction Minimization Methods	Less than Significant with Mitigation			
Impact GEO-6 (Risks from Lateral Spreading,	Mitigation Measure GEO-6 (Minimize Risk of Lateral	Less than Significant with Mitigation			

			Level of S	Significance <sup>2</sup>	
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Subsidence, and Collapse)	Spreading, Subsidence, and Collapse)				_
Impact GEO-7 (Risk Caused by Expansive Soil)	Mitigation Measure GEO-7 (Minimize Risk of Soil Expansivity)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Hazardous Materials (Sec	ond Subsequent IS)				
Impact HAZ-9 (Hazard to the Public or Environment through Reasonable Foreseeable Upset and Accident Conditions Caused by the Release of Hazardous Materials)	Mitigation Measures HAZ- 9a/(CON)-1a (Conduct Subsurface Investigations in Areas of the Corridor That May Be Underlain by Contaminated Soil or Groundwater) and HAZ-9b (Control Contamination Resulting from Previously Unidentified Hazardous Waste Materials)	Less than Significant with Mitigation			
Impact HAZ (CON)-1 (Release of Hazardous materials into the Environment)	Mitigation Measures HAZ (CON)-1a (Conduct subsurface Investigations), HAZ (CON)-1b (Control Contamination), and HAZ (CON)-1c (Conduct Lead and Asbestos Surveys Prior to Building Demolition or Renovation),	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Hydrology and Water Qua	ulity (Second Subsequent IS)				
Impact HYD-11 (Violation of Water Quality Standards or	Mitigation Measure HYD-11 (Comply with All Applicable Regulations and	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A

			Level of S	Significance <sup>2</sup>	
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS
Waste Discharge Requirements)	Subsequent Permit Programs Related to Water Quality Control)				
Impact HYD-12 (Creation of Additional Runoff)	Mitigation Measure HYD-12 (Maintain Operational Water Quality)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	Less than Significant with Mitigation
Impact HYD-13 (Alterations in Existing Drainage Patterns)	Mitigation Measures HYD- 11 (Comply with All Applicable Regulations and Subsequent Permit Programs Related to Water Quality Control) and HYD-14 (Construct Facilities to Minimize Flood Impacts)	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A	Less than Significant with Mitigation
Impact HYD-14 (Exposure to Flood Hazards)	Mitigation Measure HYD-14 (Minimize Flood Impacts)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A
Impact HYD (CON)-1 (Impair Water Quality)	Mitigation Measure HYD (CON)-1 (Implement Water Quality Control Measures)	Less than Significant with Mitigation			
Impact HYD (CON)-2 (Depletion of Groundwater Supplies)	Mitigation Measure HYD (CON)-2 (Use Non-Potable Water)	N/A	N/A	Less than Significant with Mitigation	Less than Significant with Mitigation
Noise and Vibration (SEII	R-2)				
Impact NV-1 (Noise Levels from Transit Operations That Would Be Considered a Severe Impact by Federal Transit Administration Criteria)	Mitigation Measures NV-1a (Construct Soundwalls) and NV-1c (Provide Quiet Pavement)	Less than Significant with Mitigation			

		Level of Significance <sup>2</sup>					
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS		
Impact NV-4 (Vibration Levels in Buildings from Transit Operations That Exceed Federal Transit Administration Criteria)	Mitigation Measure NV-4b (Use Vibration-Dampening Track Construction Materials). No additional mitigation is recommended.	Less than Significant with Mitigation	Significant and Unavoidable	Less than Significant with Mitigation	Significant and Unavoidable		
Impact NV (CON)-1: (Generation of Noise or Vibration That Substantially Affects Nearby Sensitive Receptors) (Noise)	Mitigation Measures NV (CON)-1a (Notify Residents of Construction Activities), NV (CON)-1b (Construct Temporary Noise Barriers During Construction), NV (CON)-1c (Restrict Pile Driving), NV (CON)-1d (Use Noise Suppression Devices), NV (CON)-1e (Locate Stationary Construction Equipment as Far as Possible from Sensitive Receptors), NV (CON)-1f (Reroute Construction-Related Truck Traffic), and NV (CON)-1g (Develop Construction Noise Mitigation Plan), NV (CON)-2, and NV (CON)-1h (Use Impact Cushions)	Less than Significant with Mitigation	Significant and Unavoidable	Significant and Unavoidable	Less than Significant with Mitigation		
Impact NV (CON)-1: (Generation of Noise or Vibration That Substantially Affects	Mitigation Measures NV (CON)-1a (Notify Residents of Construction Activities), NV (CON)-1c (Restrict Pile Driving), NV (CON)-1e	Less than Significant with Mitigation	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable		

		Level of Significance <sup>2</sup>					
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS		
Nearby Sensitive Receptors) (Vibration)	(Locate Stationary Construction Equipment as Far as Possible from Sensitive Receptors), and NV (CON)-2						
Safety and Security (Secor	nd Subsequent IS)		•	•	•		
Impact SS-3 (Pedestrian and/or Bicycle Safety Risks at Gated Crossings)	Mitigation Measure SS-3 (Incorporate Pedestrian Friendly Features)	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	N/A		
Impact SS-4 (Inadequate Lighting or Visual Obstructions at Park-and- Ride Lots)	Mitigation Measures SS-4a (Implement Measures to Deter Crime), SS-4b (Use Lighting, Cameras, and Security Patrols to Enhance Safety), and SS-4c (Define Fire and Life Safety Procedures and Develop Evacuation Plans)	Less than Significant with Mitigation					
Impact SS (CON)-1 (Potential for Safety Risks during Construction)	Mitigation Measure SS (CON)-1 (Implement Construction BMPs to Protect Workers and the Public)	Less than Significant with Mitigation					
Socioeconomics (Second S	Subsequent IS)		•		•		
Impact SOC-16 (Displacement of Existing Businesses or Housing)	Mitigation Measures SOC- 16a (Comply with Legislation for Acquisition and Relocation) and SOC- 16b (Inform Residents and Businesses of Project Status)	Less than Significant with Mitigation					

		Level of Significance <sup>2</sup>					
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS		
Utilities (Second Subseque	ent IS)						
Impact UTL-3 (Require Construction of New Stormwater Drainage Facilities or Expansion of Existing Facilities)	Mitigation Measure HYD-14 (Maintain Operational Water Quality)	Less than Significant with Mitigation					
Impact UTL (CON)-1 (Disrupt a Utility Service for a Period of 24 Hours or More)	Mitigation Measure UTL (CON)-1 (Coordinate with Utility Service Providers Prior to Construction of Light Rail Facilities)	Less than Significant with Mitigation					
Visual Quality (Second Su	bsequent IS)						
Impact VQ (CON)-1 (Creation of a New Source of Substantial Light or Glare	Mitigation Measure VQ (CON)-1 (Direct Lighting toward Construction Areas)	Less than Significant with Mitigation					
Impact VQ-1 (Creation of Substantial Light or Glare)	Mitigation Measure VQ-1 (Minimize Light and Glare)	Less than Significant with Mitigation					
Impact VQ-3 (Degradation of Existing Visual Quality)	Mitigation Measures VQ-3 (Involve Public in Station Design) and VQ-4 (Incorporate Landscaping)	Less than Significant with Mitigation					
Construction (SEIR-2)							
See construction-related im	pacts in the resource areas iden	tified above.					

		Level of Significance <sup>2</sup>					
Significant Impact <sup>1</sup>	Mitigation Measures	2005 Final EIR	2007 SEIR	2014 Subsequent IS/MND	SEIR-2 or Second Subsequent IS		
Cumulative Effects (SEIR	2-2)						
See Transportation, Air Qu	nality and Climate Change, Env	ironmental Justice, ar	nd Noise and Vibratio	n.			
Impact E-Cum-9 (Increase Demand on Electricity Transmission Infrastructure)	No mitigation is feasible	No Impact	Significant and Unavoidable	N/A	N/A		
Impacts NV-Cum-2 (Generate Noise from Pile Driving) and NV- Cum-3 (Generate Vibration from Pile Driving)	Mitigation Measures NV- Cum-2 and NV-Cum-3 (Coordinate activities with other construction projects where feasible and reasonable)	No Impact	Less than Significant with Mitigation	N/A	N/A		

## **Appendix D**

**Description of the Light Rail Alternative** 

# Description of the Eastridge to BART Regional Connector Project

The following section integrates the approved components of the Eastridge to BART Regional Connector (EBRC) Project from the 2005 Final Environmental Impact Report (EIR), 2007 Supplemental EIR, 2010 Revised Addendum, the 2014 Subsequent Mitigated Negative Declaration (MND), the 2019 Final Second Supplemental EIR, and the 2020 Second Addendum with the proposed change to the Project to provide a complete project description of the EBRC Project.

#### **Eastridge to BART Regional Connector Project**

The EBRC Project would extend light rail along Capitol Expressway from the existing Alum Rock Light Rail Station to the Eastridge Transit Center a distance of approximately 2.4 miles. Light rail will operate primarily in the median of Capitol Expressway within exclusive and semi-exclusive rights-of-way. Property acquisition for the project would be minimized through the removal of two high-occupancy vehicle (HOV) lanes (one on each direction) on Capitol Expressway between Story Road and Tully Road. The project will include new light rail stations at Story Road (aerial) and Eastridge Transit Center (at-grade). The Project will also include traction power substations at Ocala Avenue and Eastridge Transit Center. Relocation and replacement of a number of 115-kilovolt steel lattice electrical transmission towers with Tubular Steel Poles (TSP) will be required as part of the Project.

Figure 1 shows the location of the EBRC Project.

Benefits of the EBRC Project are related to speed and travel time. The light rail trains would travel at high speeds and would be minimally impacted by roadway congestion. As a result, travel times for the EBRC Project would generally be faster, more reliable and dependable than other modes.

In addition, the EBRC Project would benefit transit users by providing a direct light rail connection to the Bay Area Rapid Transit (BART) at the Milpitas BART Station.

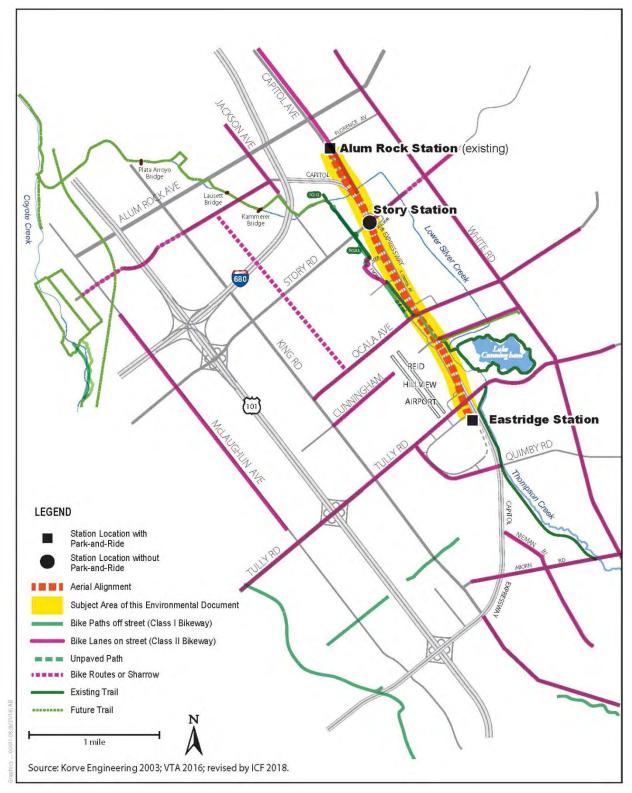


Figure 1 EBRC Project Area

**Background.** The EBRC Project is the last portion of the larger Capitol Expressway Corridor Project that transforms Capitol Expressway into a multi-modal boulevard offering pedestrian improvements, bus rapid transit (BRT), light rail transit (LRT), and convenient connections to the regional transit system. VTA first addressed pedestrian access and improved safety measures along Capitol Expressway between Quimby Road and Capitol Avenue. This was completed in Fall 2012 and included new sidewalks, street lighting, and landscaping. VTA also replaced the Eastridge Transit Center, which was completed in 2015.

In June 2016, VTA Board of Directors approved \$70 million to complete design, acquire right of way and relocate utilities for the project. In October 2016, VTA Board of Directors approved a full funding plan for the project. In June 2018, voters approved Regional Measure 3, which included \$130 million in funding for the project. In June 2020, the VTA Board of Directors approved the assignment of \$14 million in Low Carbon Transportation and Operations Program (LCTOP) funds to the EBRC Project.

#### **URBAN DESIGN**

Since the conceptual engineering phase of the Capitol Expressway Corridor Project, there has been a consistent effort to incorporate attractive, urban design elements into the EBRC Project. These principles reflect the policy guidance of the Policy Advisory Board for this Project. The following section highlights the key urban design elements of the EBRC Project.

#### Urban Design Principles

- Transform the expressway from an auto-oriented corridor to a multi-modal boulevard.
- Establish pedestrian and bicycle linkages along and across the corridor to connect neighborhoods to activity centers.
- Design stations to facilitate safe and convenient pedestrian access and to convey the personality and identity of adjacent neighborhoods.
- Introduce special treatments along the edges of the boulevard to reduce visual and noise impacts and to create a more positive relationship with adjacent neighborhoods.
- Promote opportunities for transit-oriented development that will enhance ridership and the quality of life of the surrounding community.

#### STATIONS AS NEIGHBORHOOD GATEWAYS

The design of stations and their relationship with the adjacent neighborhoods is critical to promote a viable transit environment. Convenience, safety, and ease of access for residents and employees arriving by foot, bike, bus, or car are primary

design objectives. Additionally, stations can create identities and gateways to communities. Stations can also provide opportunities for neighborhood-serving retail uses and/or a mix of commercial, residential, and recreational uses. The EBRC Project will be consistent with the goal to integrate high-quality design enhancements, designed by artists and project architects, that reflect the identity of the communities and neighborhoods in which they are located.

There are numerous examples of community influenced design enhancements that have been incorporated into VTA's existing light rail stations. For example, at Alum Rock Station, artists working in coordination with the community designed special railings, shelter canopy glass, pavers, art tile benches, and entry markers.

#### **ALIGNMENT DESCRIPTION**

The EBRC Project would be designed to reduce travel time and to support higher speed transit operations with grade separation at congested intersections. Construction of the light rail would alter the roadway geometry along some portions of Capitol Expressway. Perhaps the most dramatic change would be the removal of existing HOV lanes between Story Road and Tully Road to provide the additional right-of-way to accommodate light rail. While some property needs would be required for improvements and for utility relocations, especially at stations and substations, the removal of the HOV lanes would minimize the need for additional property for the EBRC Project and would be consistent with past policy decisions in the City of San Jose's Evergreen Specific Plan, Evergreen Specific Plan Transportation Improvements EIR and the Evergreen-East Hills Development Policy.

#### Alum Rock LRT Station to Story Road

The light rail alignment would begin at the existing Alum Rock LRT Station on the Mountain View to Alum Rock LRT Line. In this section of the corridor, an aerial guideway would be constructed for the full distance from south of the Alum Rock LRT Station to south of Story Road to support higher speed transit operations and minimize congestion at major intersections. The guideway would be located largely in the median of Capitol Avenue and Capitol Expressway. The aerial guideway would include concrete columns supported on piled foundations. The aerial guideway would also include aerial sound walls where necessary to mitigate noise levels. At its northern end, the aerial structure would cross the northbound lanes of Capitol Avenue and Capitol Expressway and transition to an alignment in the median of Capitol Expressway. The light rail alignment would continue on the aerial structure over Story Road.

#### Story Road to Eastridge Transit Center

From south of Story Road, the light rail alignment would continue on an aerial guideway for 1.25 miles to north of Tully Road. Before reaching Tully Road, the aerial guideway would transition from median-running north of Tully Road to side-running south of Tully Road. The light rail alignment would continue on the aerial

structure over Tully Road and return to grade on an embankment structure as it terminates at the Eastridge Transit Center

#### **CROSSINGS**

The EBRC Project would include rail crossings along the corridor as shown in Table 1.

#### STATIONS AND PARK-AND-RIDE FACILITIES

Two new stations are included with the EBRC Project between the northern terminus at the existing Alum Rock LRT Station and the southern terminus at the existing Eastridge Transit Center. The stations would be located approximately 1.0 miles apart. The placement of the stations was based on the desire to balance convenient passenger access and minimize travel time delay. The following sections describe each station along the alignment of the EBRC Project.

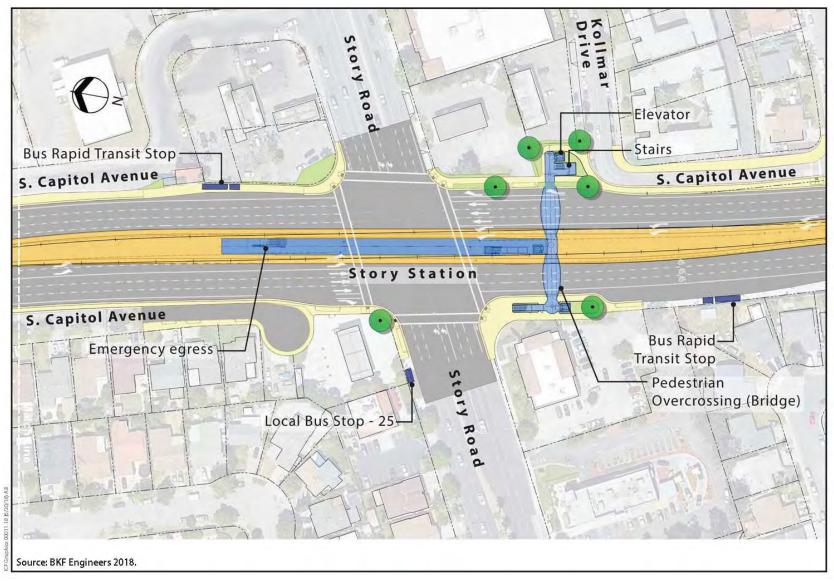
#### Alum Rock LRT Station (existing)

At its northern end, the EBRC Project would connect to the existing light rail network at the Alum Rock LRT Station on the Mountain View to Alum Rock Line. The two lines would meet at the station, and the Mountain View to Alum Rock Line would be through-routed with the EBRC Project. Both lines would share the existing station platform and could operate in the same corridor. No improvements are anticipated at this station.

#### Story Station (new)

The EBRC Project includes a two-level station in the median of Story Road with a mezzanine level and an elevated center platform. Since the traffic volumes and pedestrian/bicycle activity at the Story Road intersection are high, a single set of pedestrian overcrossings (POC) would be located south of Story Road connecting the southern corners of the intersections to the station. From the mezzanine level, an elevator and stairs would provide access to the station platform. The EBRC Project would restrict pedestrian access to the Story Station at the median to emergency purposes only.

Figure 2 shows the project features at Story Station.



**Figure 2 Story Station** 

**Table 1 Rail Crossings of the EBRC Project** 

Cross Street	Track Stationing	Number of Tracks	Pedestrians	Automobiles	Safety Risks	Proposed Crossing Type	Proposed Safety Devices (At Grade Crossings)
Wilbur Avenue/Nuestra Castillo Court	+965+00	2	1 Crosswalk	2 Lanes	VTA buses, Left turns from Wilbur to southbound Capitol Avenue	At-grade (existing crossing with t- signals)	T-signals, Traffic signals
Northbound Capitol Avenue	+974+00	2	2 Sidewalks	2 Lanes	High roadway traffic volumes	Grade separated, Aerial	n/a
Northbound Capitol Expressway	+978+00	2	1 Sidewalk	4 Lanes	High roadway traffic volumes	Grade separated, Aerial	n/a
Story Road	+995+00	2	2 Crosswalks	6 Through lanes, 4 turn lanes	High auto and pedestrian traffic volumes. Left turn movements	Grade separated, Aerial	n/a
Ocala Avenue	+1037+00	2	2 Crosswalks	4 Through lanes, 2 Turn lanes	School children, School buses, Heavy volume of LT movements	Grade separated, Aerial	n/a
Cunningham Avenue	+1050+00	2	2 Crosswalks	2 Lanes	Light traffic volumes, low risk	Grade separated, Aerial	n/a
SB Capitol Expressway	+1067+00	2	1 Sidewalk	3 Lanes	Heavy roadway traffic volumes	Grade separated, Aerial	n/a

**Table 1 Rail Crossings of the EBRC Project** 

Cross Street	Track Stationing	Number of Tracks	Pedestrians	Automobiles	Safety Risks	Proposed Crossing Type	Proposed Safety Devices (At Grade Crossings)
Swift Lane	+1073+00	2	2 Sidewalks	2 Lanes	Light traffic volumes, low risk	Grade separated, Aerial	n/a
Tully Road	+1078+00	2	2 Sidewalks	6 Lanes, 4 Turn lanes	Heavy roadway traffic volumes	Grade separated, Aerial	n/a
Northern Pedestrian Crossing to Platform	+1086+00	1	1 Crossing of SB track	None	Incoming and departing trains	At-grade	Crossing gates, Flashing Lights, and Bells
Southern Pedestrian Crossing to Platform	+1089+80	1	1 Crossing of SB track	None	Train movements in and out of tail track	At-grade	Crossing gates, Flashing Lights, and Bells

Source: VTA, 2018.

#### Eastridge Station (new)

The Eastridge Transit Center is currently the second busiest transfer point in the VTA system, with significant bus transfer activity and a Park-and-Ride lot. Most bus routes serving the Downtown/East Valley area terminate at or pass through the center. The EBRC Project includes an at-grade station with one platform, tail tracks, and one traction power substation at the Eastridge Station. Additional project work at the Eastridge Station would include the following:

- Tail tracks, including a pocket track;
- Diamond crossover on the ballasted section of track;
- Passenger access at north and south ends of station;
- Platform raised on retained fill.

Figure 3 shows the proposed project features at the Eastridge Station.

#### Park-and-Ride Facilities

Two existing Park-and-Ride lots are located along the alignment: Alum Rock Station and Eastridge Transit Center.

To serve the EBRC Project, there would be no increase in parking at Alum Rock Station due to space constraints. The Eastridge Park-and-Ride Lot currently includes 180 parking spaces due to the relocation of VTA Paratransit staff and vehicles to a remodeled building at this location in September 2017. VTA is proposing to increase the parking to approximately 302 spaces.

#### SUPPORT SYSTEMS

In addition to the primary alignment, stations, and Park-and-Ride facilities, the EBRC Project would incorporate light rail support systems, including traction power and substations, overhead contact, supplemental feeders, communications, signaling, gates, Intrusion Detection System, closed-circuit television (CCTV) cameras, a fare collection system, and noise and vibration abatement. Support systems are described in the following sections.

#### Traction Power System and Substations

A traction power system is a distribution system that converts high-voltage commercial electrical power received from substations to medium-voltage direct current (DC) and distributes it to the light rail vehicles via the overhead catenary or contact wire as they travel along the alignment. A traction power system consists of the power distribution mechanism and electrical substations. For the EBRC Project, the traction power system

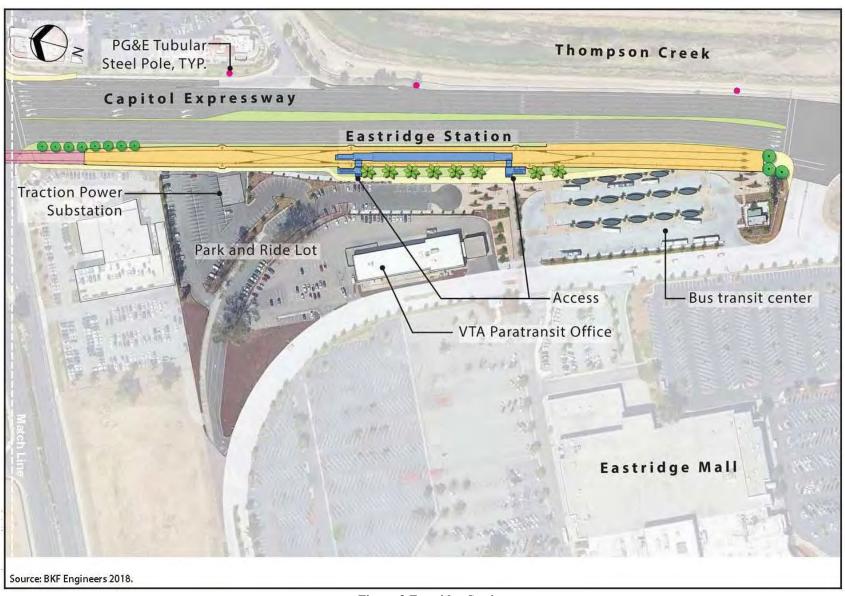


Figure 3 Eastridge Station

would provide the potential for three-car light rail trains operating at speeds up to 55 mph on approximately 5-minute headways, as provided by VTA Service Design Guidelines. During peak periods of use, such as during special events, the traction power system is anticipated to accommodate 3-minute headways.

The alignment would require a total of two substations, not including one existing substation south of the Alum Rock LRT Station near the Park-and-Ride lot shown in Figure 2.

Locations for new substations include the following:

- Southwest corner of Capitol Expressway and Ocala Avenue
- Eastridge Transit Center

Electrical power would be supplied to each traction power substation (TPSS) by an underground feeder from the electrical utility distribution system. Alternate substations would be equipped with two primary feeders from the utility company and an automatic transfer switch to supply reliable power to the substation. Each TPSS would be contained in a prefabricated substation housing that is factory wired to accommodate internal components and built on a concrete foundation. Foundations would be equipped with embedded conduit to accommodate incoming alternating current primary power cables, control and communication cables, and the DC feeder cables to the overhead contact system.

The estimated size for each TPSS building would be approximately 650–750 square feet in area and 12–15 feet in height. Parcels used as substation sites would need to be large enough to provide for side clearance from passing trains and automobiles and to allow a service vehicle to park, unless convenient parking is available on an adjacent roadway.

#### Overhead Contact System

The overhead contact system (OCS) would be an auto-tensioned simple catenary (ATSC) consisting of a contact wire, a messenger wire, and counterweight terminations (see Figure 4). This configuration represents the typical application for the VTA light rail system. The height of the contact wire would conform to the requirements of *VTA Light Rail Design Criteria Manual* and the California Public Utilities Commission's (CPUC's) General Order 95 (California Public Utilities Commission 1941). All OCS poles, except counterweight poles, would be constructed as tubular, hollow, tapered, round poles made of rigid galvanized steel.



Figure 4 Overhead Contact System at Alum Rock Station

Counterweight poles would be nontapered. The pole height would be adjusted to suit the contact wire height and match the existing system as closely as possible. The OCS poles would be located between the tracks or on the outside of the tracks, depending on space restrictions.

# Communications Systems

The communications equipment and design would be fully compatible with the communications system that serves VTA's existing light rail operations. A wayside cable system, fiber optic cable, and two-way radio system would link light rail

stations and TPSSs with the existing Operations Control Center. The communications system would consist of the following main components:

- Public address system with two-way voice announcement linking the Operations Control Center and the light rail stations.
- Two-way radio system with two-way voice announcement linking the Operations Control Center and light rail vehicles.
- Capability to monitor and control the TPSS switchgear functions from the Operations Control Center via the remote terminal units and wayside cable system.
- Cable transmission system designed to incorporate both the backbone communications distribution (fiber optics) and metallic distribution.

Wayside cabling would utilize a combined systems duct installed continuously along the corridor.

# Signaling and Gates System

The signal system for the EBRC Project would be an extension of the existing light rail signal system and functionally compatible with the existing lines. The signal system would include a wayside color light aspect with no cab signal and Automatic Block Signaling (ABS). (Wayside color light aspect refers to a signal at the side of the tracks indicating the next block is either clear or occupied.) The signal system would be designed to support the train headway goals of the EBRC Project. Generally, the alignment would not be gated except at the at-grade pedestrian crossings at Eastridge Station.

## Intrusion Detection System

Intrusion detection would be provided at the ends of the station platforms and at the aerial guideway approach embankments to provide warning of people either trespassing or walking in restricted areas. This information would be provided to VTA Operations Control Center to initiate a response from VTA security and to alert train operators to proceed with caution.

#### VEHICLE STORAGE FACILITIES

The EBRC Project does not include any new vehicle maintenance and overnight storage facilities. Heavy maintenance activities for vehicles used on this line would continue to be performed at the existing Guadalupe Light Rail Division on Younger Street in San Jose.

## PEDESTRIAN AND LANDSCAPING ENHANCEMENTS

A separate project constructed pedestrian and landscaping improvements at various locations along Capitol Expressway between Capitol Avenue and Quimby Road. The

EBRC Project will remove approximately 210 - 220 trees where there are conflicts with the proposed alignment, especially where additional right-of-way is required for aerial guideways, stations, and utility relocations. The enhancements could include sidewalk, landscaping, or a multi-use path consisting of sidewalk, landscaping, and street lighting.

Between Foxdale Drive and Ocala Avenue, VTA will not replace the existing sidewalk along the west side of Capitol Expressway with a new multi-use path and landscaping for a distance of about 1,500 feet in order to minimize the acquisition of property from the backyards of adjacent residences.

To accommodate bicyclists to the greatest extent possible, curb lanes on both sides of Capitol Expressway will be 17–18 feet for the entire length to allow use of the shoulders by bicycles.

### CAPITOL EXPRESSWAY ROADWAY LANE CONFIGURATIONS.

In addition to restriping, a slight reduction in lane width, and minor modifications to traffic lanes, the Project would revise the roadway lane configurations along Capitol Expressway. The Project could include resurfacing Capitol Expressway with rubberized, open-graded asphalt concrete (OGAC). Detailed track plans and profiles showing the proposed geometric design changes are included in Attachment C of the 2019 Final SEIR-2. The proposed roadway lane configuration includes the following.

- Four traffic lanes in each direction north of Story Road. Both of the existing high-occupancy vehicle lanes (one northbound and one southbound) would be converted to general purpose traffic lanes, resulting in a total of four general purpose lanes in each direction between Story Road and Capitol Avenue. One southbound inner general purpose lane would end at the introduction of the left turn pockets at Story Road. This would be accomplished by the widening of Capitol Expressway and a reduction of the median.
- *Right turn lanes*. Exclusive right turn lanes on Capitol Expressway would be added at Story Road, Cunningham Avenue, and Tully Road intersections.
- *Bicycle Slot*. At the locations where exclusive right turn lanes are added or maintained on Capitol Expressway, bicycle slots would be included to the left of the right turn lanes. Figure 5 includes pictures of a typical bicycle slot with bicycle detector.
- Left turn lanes. Longer left turn lanes on Capitol Expressway would be added at the following intersections: northbound and southbound at Story Road, northbound at Ocala Avenue, and southbound at Tully Road.

<sup>&</sup>lt;sup>1</sup> Recent studies by Caltrans indicate that OGAC produces noticeably less vehicle noise than other pavement types (i.e., concrete and conventional asphalt).

• Left turn pocket. A second left turn pocket would be maintained on northbound Capitol Expressway at Story Road and Ocala Avenue.

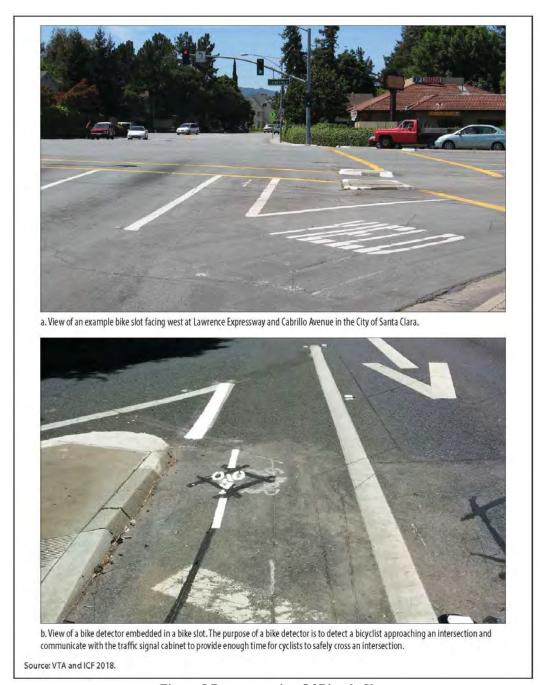


Figure 5 Representation Of Bicycle Slots

# **UTILITY RELOCATIONS**

The Project will include minor utility relocations (e.g., water, gas, communications, electric lines, sanitary sewer, stormwater, etc.), as necessary.

In addition, 6 steel lattice towers and 2 Tubular Steel Poles [TSPs] carrying the Pacific Gas & Electric Company's (PG&E) McKee-Piercy and Milpitas-Swift sections of the 115 kilovolt transmission lines would need to be relocated between Ocala Avenue and north of Quimby Road. A total of 10 new TSPs would be installed. It is anticipated that the TSPs would need to be up to 121 feet in height in order to clear the aerial guideway. As a result of the increase in height of the TSPs and the proximity to Reid-Hillview Airport, PG&E may need to install red light-emitting diode (LED) obstruction lighting on some or all of the new or modified towers or poles in accordance with Federal Aviation Administration (FAA) requirements. These lights would be powered by either solar panels or local distribution electric lines. One of the TSPs (No. 54) may require right-of-way from the Santa Clara Valley Water District for placing the TSP and its foundation. The new TSPs would be mounted on a drilled foundation. Figures 6a and 6b show the proposed project work for the electrical transmission facilities.

The new TSPs would be mounted on a drilled foundation, and construction of the foundation for TSP No. 53A, 54, and 55 may require temporary closure of the Thompson Creek Trail for safety during drilling, and foundation operations. Approximately 60 - 70 trees that are within the aerial easement of the electrical transmission facilities will need to be removed per PG&E's latest Greenbook Manual. For TSPs located immediately adjacent to Capitol Expressway, a pull-out area will be provided for safe ingress and egress of PG&E maintenance vehicles.

### PHOTOVOLTAIC SYSTEM

The Project will include a parking canopy with a 92 kW photovoltaic system at Eastridge Transit Center that will offset the electricity requirements of the light rail station, the Eastridge Park-and-Ride Lot, and the Eastridge Transit Center.

## **RIGHT-OF-WAY REQUIREMENTS**

The majority of the improvements will be constructed within existing public right-of-way. There are a number of locations, however, where the EBRC Project will require minor amounts of additional right-of-way. Based on preliminary designs, the locations where additional right-of-way will be required are listed in Table 2.

Easements and other right-of-way requirements may change (i.e., increase or decrease in size, change type, and/or change from permanent to temporary, etc.) during final design while being within the scope of the project and minor in nature. It is the intent of this environmental document to environmentally clear easements and other right-of-way requirements that are generally indicative of the type of work required, recognizing some adjustments may be necessary based on final design and/or working with individual property owners during the real estate acquisition process. Should modifications beyond the scope of the project trigger the need for additional environmental review pursuant to CEQA and NEPA, subsequent environmental analysis would be required.

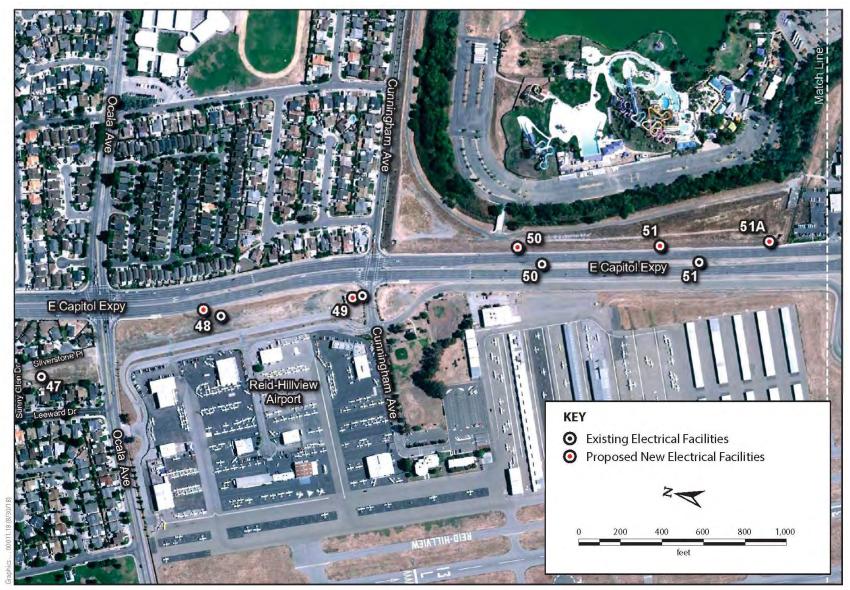


Figure 6a Electrical Transmission Facilities



Figure 6b Electrical Transmission Facilities

Table 2 Preliminary Right-of-Way Requirements for the EBRC Project

No.	Assessor's Parcel Number	Address	Existing Use	Right-of-Way Needed	Right-of-Way Requirement (square feet)		Partial or Full
					Permanent	Temporary	Right-of-Way Requirement
1	484-33-108	2701 Story Road	Business	TCE	0	237	Partial
2	488-01-041	2710 Story Road	Business	Partial Fee Take, TCE, Permanent Easement	1,175	1,845	Partial
3	488-01-002	1148 Kollmar Drive	Business	Partial or Full Fee Take, TCE	2,428	1,523	Partial
4	488-01-004	2710 Kollmar Drive	Multi-Family	TCE	0	687	Partial
5	488-01-037	2709 Sussex Drive	Single-Family	TCE	0	74	Partial
6	491-01-016	SE Corner of Capitol Expressway & Cunningham Avenue	Public	Partial Fee Take, TCE <sup>2</sup>	514	701	Partial
7	491-02-073	3000 E. Capitol Expressway	Business	Partial Fee Take, TCE, Permanent Easement	2,246	1,757	Partial
8	491-02-074	3001 E. Capitol Expressway	Business	Partial Fee Take, TCE, Permanent Easement	8,496	10,582	Partial
9	491-02-069	2880 E. Capitol Expressway	Business	Permanent Easement	922	0	Partial
10	491-02-070	2950 E. Capitol Expressway	Business	Permanent Easement	1,582	0	Partial
11	491-02-071	2950 E. Capitol Expressway	Business	Permanent Easement	4,644	0	Partial
12	491-02-072	2990 E. Capitol Expressway	Business	TCE, Permanent Easement	1,194	1,917	Partial
13	491-02-066	Thompson Creek	Public	Permanent Easement	21,770	0	Partial
14	491-48-006	Thompson Creek	Public	Permanent Easement	4,706	0	Partial

Table 2 Preliminary Right-of-Way Requirements for the EBRC Project

	Assessor's				Right-of-Way Requirement (square feet)		Partial or Full
No.	Parcel Number	Address	<b>Existing Use</b>	Right-of-Way Needed	Permanent	Temporary	Right-of-Way Requirement
15	484-45-060	2686 Lombard Avenue	Single-Family	TCE	0	465	Partial
16	484-45-061	353 S. Capitol Avenue	Single-Family	TCE	0	337	Partial
17	484-45-062	455 S. Capitol Avenue	Single-Family	TCE	0	310	Partial
18	484-45-116	461 S. Capitol Avenue	Business	Partial Fee Take, TCE	2,277	2,223	Partial
19	484-34-015	1017 S. Capitol Avenue	Single-Family	TCE	0	250	Partial
20	484-34-016	1033 S. Capitol Avenue	Single-Family	Partial Fee Take, TCE	22	250	Partial
21	484-34-017	1049 S. Capitol Avenue	Single-Family	Partial or Full Fee Take, TCE	225	335	Partial
22	484-34-131	1091 & 1093 S. Capitol Avenue	Business	Partial or Full Fee Take <sup>1</sup> , TCE	1,829	277	Partial
23	484-34-019	2695 Story Road	Business	Partial Fee Take, TCE	3,977	878	Partial
24	486-39-025	1330 Foxdale Loop	Multi-Family	TCE	0	4,593	Partial
25	486-43-106	2690 Story Road	Business	Partial Fee Take, TCE	1,479	3,343	Partial
26	486-43-108	2680 Story Road	Business	TCE. Permanent Easement	3	6	Partial
27	491-15-003	Reid-Hillview Airport	Public	Partial Fee Take, TCE, Permanent Easement	8,299	1,084	Partial
28	491-15-041	Swift Avenue	Utility	Partial Fee Take, TCE Permanent Easement <sup>2</sup>	1,817	816	Partial
29	491-13-009	Reid-Hillview Airport	Public	Permanent Easement	1,401	0	Partial

Table 2 Preliminary Right-of-Way Requirements for the EBRC Project

No.	Assessor's Parcel Number	Address	Existing Use	Right-of-Way Needed	Right-of-Way Requirement (square feet)		D (1 E II
					Permanent	Temporary	Partial or Full Right-of-Way Requirement
30	491-05-001	North of Airport Access Road	Public	TCE, Permanent Easement	1,699	106,481	Partial
31	491-05-020	Reid-Hillview Airport	Public	Partial Fee Take, Permanent Easement, TCE	16,598	5,169	Partial
32	491-04-012	290 E. Capitol Expressway	Business	Full Fee Take	3,030	0	Full
33	491-04-047	290 E. Capitol Expressway	Business	Full Fee Take	5,864	0	Full
34	484-33-110	2785 Mervyns Way	Public	Partial Fee Take, TCE	374	642	Partial
35	NA	NA <sup>2</sup>	Public Right- of-Way	Permanent Easement	32,575	0	Partial
36	NA	NA <sup>2</sup>	Public Right- of-Way	Permanent Easement	4,134	0	Partial
	Total Right-of-Way Needed:				135,280	146,782	NA

Notes:

TCE = Temporary Construction Easement; NA = Not Applicable; IEE = Ingress Egress Easement

Partial Fee Take refers to the partial right-of-way need of a parcel; Full Fee Take refers to the full right-of-way need of a parcel.

Source: BKF 2018.

<sup>&</sup>lt;sup>1</sup> These areas are within public right-of-way, and do not have an Assessor's Parcel Number or address associated with them.

#### **OPERATING ASSUMPTIONS**

For the purposes of environmental analysis, the operating assumptions are based on past, current, and reasonably foreseeable future service plans. The purpose is to assess the project's effect on the environment under the "worst-case" conditions. The key operating assumptions are as follows:

- The EBRC Project is assumed to operate on both the Santa Teresa to Alum Rock Line and the proposed new line from Mountain View to Alum Rock.
- The EBRC Project is assumed to operate one to three-car trains depending on ridership demands. Initially, VTA plans to operate two-car trains during peak hours in this corridor.
- The hours of operation are assumed to be between 4:30 a.m. and 1:30 a.m.
- Initially, VTA plans to operate on 15 minute headways on each line for 7.5 minute combined headways for both lines during peak hours. For the segment of the alignment between the Alum Rock LRT Station and Eastridge Transit Center, the estimated running time would be approximately 4.3 minutes, as shown in Table 3.
- Generally, the EBRC Project will be designed for 55 mph operations.

**Table 3 LRT Estimated Travel Time and Speed** 

LRT Segments	Distance/Average Speed/Time		
	Miles	mph	min.
Alum Rock TC to Story Station	0.6	25	1.4
Story Station to Eastridge Station	1.8	45	2.9
Corridor Total	2.4	35	4.3

Notes:

Source: BKF, 2018.

#### CONSTRUCTION SCENARIO

Project construction would take place over several years. Most of the construction work would occur in multiple locations along the project corridor between Alum Rock LRT Station and Eastridge Transit Center. Utility relocations would take place in 2019. Construction of the EBRC Project is anticipated to begin in 2020 and end in 2024. Construction would consist of clearing and grubbing, grading, structural work, trackwork, and paving. Major construction at Eastridge Mall during the holiday season will be minimized to the extent practicable.

<sup>&</sup>lt;sup>1</sup> Travel speed and time are assumed to be approximately the same for AM and PM hours as well as northbound and southbound directions as the aerial guideway would not be affected by vehicular traffic.

<sup>&</sup>lt;sup>2</sup> Approximately 30 seconds of dwell time would be experienced at Story Station.

At the height of construction, a number of construction employees and equipment would occupy portions of the street, including the median and potentially parking spaces, at active construction locations. In the most active areas, construction activities would periodically reduce the capacity of Capitol Expressway to two lanes in the northbound direction, and one lane in the southbound direction during non-peak hours of travel. Three travel lanes in each direction are expected to stay open during peak hours of travel. One left turn lane in each travel direction may be closed at intersections temporarily during various construction events. Lane closures would be contingent on the requirements and restrictions of the County of Santa Clara and the City of San Jose. If lane closures for construction activities are further restricted, an increase of approximately one year would be anticipated in the duration of project construction, moving the construction completion from 2024 to 2025.

In addition, construction activities may be necessary during night, early morning, and weekend periods to minimize traffic disruption. Construction activities at night may involve partial or complete intersection closures along Capitol Expressway at Capitol Avenue, Story Road, Ocala Avenue, Cunningham Avenue, Swift Lane and Tully Road. Complete expressway closures at night may occur in each travel direction (northbound and southbound) of Capitol Expressway for work on the proposed pedestrian overcrossing.

The aerial guideway sections would require extensive pile driving. It is anticipated that 6 to 12 piles would be driven per day for 3 to 6 days at each column site. The column sites are spaced approximately 120 to 130 feet apart. Pile driving could occur simultaneously at 2 locations along the alignment.

The main construction staging area would likely occur on vacant airport property between Cunningham Avenue and Tully Road subject to the concurrence of Santa Clara County Roads and Airports, and also at Eastridge Transit Center. The median of expressway would also be used as a staging area for daily activities.