### BART SILICON VALLEY BERRYESSA EXTENSION PROJECT

**Environmental Commitment Record (ECR) - MMRPs**

**Sheet Identification:** VTA - MMRP

**Indicates updates since last quarterly report**

#### Key Terms
- **State Env. Clearance/CEQA ONLY (i.e., SVBX FEIR/SEIR-1/SEIR-2 and/or Upper Penitencia (P-MND))**
- **Federal Env. Clearance (NEPA FEIS) and/or EIRs (FEIR/SEIR-1/SEIR-2) and/or Upper Penitencia (P-MND)**
- **Mitigation Measure no longer applies to the project.**
- **U.S. Fish and Wildlife Service Letter of Concurrence (FWS LOC), Reference No. 81420-2009-1-1296-1**
- **U.S. Army Corps of Engineers Section 404 Permit (404), File Number 28924S**
- **Federal Transit Administration**
- **California Department of Transportation**
- **California Department of Fish and Game  Lake and Streambed Alteration Agreement (LSAA), Notification No. 02-43-C0654**

#### Legend
- **C** (for construction), **D** (for Design), **P** (for post construction)
- **F** (for Fully Complete), **IP** (for In Progress), **NA** (for Non Applicable)

### Implementation

#### Biological Resources and Wetlands

**MMRP1**  
**Congdon's tarplant**  
**SEIR-2 B-1(a)**  
- VTA will design all facilities to avoid temporary and permanent impacts to Congdon's tarplant to the maximum extent practicable. If avoidance is not feasible, a focused botanical survey will be conducted by a qualified plant biologist to ascertain the presence or absence of the species in the Phase 1 area during the initial blooming period (August) that occurs prior to the construction. VTA will mitigate the permanent loss of Congdon's tarplants at a minimum ratio of 1:1 (replacement plants: lost plants), or at a ratio determined in consultation with resource agency personnel. VTA will also mitigate in accordance with the California Native Plant Society's recommended measures for mitigating impacts to Congdon's tarplant, as described in mitigation measures B-1(b) through B-1(f).

**MMRP2**  
**Congdon's tarplant**  
**SEIR-2 B-1(b)**  
- To replace plants, seeds from plants within the area of impact will be collected and stored during the month of August or September prior to construction beginning. As the blooming period lasts until November, the effect of pruning flowering heads to obtain seed will allow the plant to repeat flower and seed production before the end of the blooming period and thereby lessen or avoid a temporal loss before Phase 1 work and reseeding occurs.

**MMRP3**  
**Congdon's tarplant**  
**SEIR-2 B-1(c)**  
- The seed will be applied as a component of the revegetation mix within the impact area for any temporary impacts and within a proposed replacement area for permanent impacts. The replacement area will be determined in consultation with resource agency personnel. Revegetation should be accomplished by hydro seeding prior to the start of the rainy season in areas.

**MMRP4**  
**Congdon's tarplant**  
**SEIR-2 B-1(d)**  
- The success of the revegetation will be monitored during the blooming period in the year following revegetation. The criteria for revegetation success will be that the species is found to be occurring throughout the revegetated areas. If unsuccessful, seed will be collected and sown in the unsuccessful areas prior to the rainy season that year.

**MMRP5**  
**Congdon's tarplant**  
**SEIR-2 B-1(e)**  
- The success of the revegetation will also be monitored during the blooming period in the second year following revegetation. If revegetation of previously unsuccessful habitat is successful, mitigation will be deemed successful and no additional monitoring will be required. If unsuccessful, the area will be deemed as unsuitable habitat due to an apparent subtle difference in soil characteristics. In this case, revegetation of additional areas, determined in consultation with resource agency personnel, and an additional two years of monitoring will be conducted.
<table>
<thead>
<tr>
<th>Page 2 of 37</th>
<th><strong>MWIRP</strong></th>
<th><strong>Corridor &amp; Riparian</strong></th>
<th><strong>SEIR-2</strong></th>
<th><strong>B-10</strong></th>
<th><strong>P</strong></th>
<th><strong>VTA</strong></th>
<th><strong>COMPLETE</strong></th>
<th><strong>4Q 2013</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>If mowing of any revegetation area is proposed, it should be conducted prior to May 15 in order to allow sufficient time for flowering and seed set. Mowing should not be lower than six inches in order to minimize removal of native foliage prior to flowering.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>The Upper Penitencia Creek Improvement Project (UPC Project) served to mitigate for the temporary and permanent impacts to wetlands, waters of the United States, and riparian habitat due to the SVBX Project. The project is located adjacent to the new BART Berryessa Station campus (on-site). In-kind mitigation requirements were negotiated with the regulatory agencies and not necessarily based on defined impacts/migration ratios. The UPC Project included the creation of 1.56 acres of floodplain wetland habitat, 1.5 acre of riparian habitat, and approximately 382 linear feet of stream channel, as described in the BART Silicon Valley Berryessa Extension Project Mitigation and Monitoring Plan (May 2012), as amended by the Upper Penitencia Creek Improvement Project Vegetation Monitoring Plan (September 2014). Both these plans were prepared by qualified biologists and restoration ecologists at ICF International and HT Harvey &amp; Associates Ecological Consultants. Construction of the mitigation project was complete in October 2012, and native wetland and riparian plants were installed in January 2013. Annual monitoring and reporting began in 2013 and will continue through 2022.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MMRP11</td>
<td>Riparian habitat</td>
<td>SEIR-2</td>
<td>S-4</td>
<td>Any permanent loss of riparian or aquatic habitat in the Guadalupe River, Coyote Creek, Upper Penitencia Creek, or Lower Silver Creek will be compensated through protection or enhancement of degraded riparian and aquatic habitat either at an on-site or an off-site location. The location and total amount of the compensation habitat will be determined in consultation with U.S. Fish and Wildlife Service (USFWS).</td>
<td>D</td>
<td>VTA</td>
<td>Full compensatory mitigation for the permanent loss of riparian and aquatic habitat for the SVBX was provided in the Upper Penitencia Creek Restoration project, as outlined separately in prior mitigation measures. The regulators concurred by issuing permits for the project. VTA has these on file and documentation is available upon request.</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>MMRP12</td>
<td>Riparian habitat</td>
<td>SEIR-2</td>
<td>S-5</td>
<td>VTA will mitigate the impacts of temporary disturbance to Central Coast cottonwood-sycamore riparian forest at a ratio determined by the California Department of Fish and Game (CDFG).</td>
<td>D</td>
<td>VTA</td>
<td>Full compensatory mitigation for impacts to riparian vegetation (including any temporary disturbance to Central Coast cottonwood-sycamore riparian forest) for the SVBX project was provided in the Upper Penitencia Creek Restoration project, as outlined separately in prior mitigation measures. The regulators (including the California Department of Fish and Wildlife (CDFW) concurred with the planting ratios by issuing permits for the project. VTA has these on file and documentation is available upon request.</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>MMRP13</td>
<td>Riparian habitat</td>
<td>SEIR-2</td>
<td>S-6</td>
<td>Where riparian vegetation will be affected unavoidably, habitat quality will be assessed and confirmed with regulatory agencies. The size of the area and the quality of the resources that will be affected will be included in a mitigation and monitoring plan (M&amp;M) to develop the details of the compensatory mitigation to be carried out. The site-specific M&amp;M will assess replacement or enhancement of habitat values such as the density of the inventory vegetation, re-introduction of native species, and development of complex vegetation structure, to the maximum extent practicable.</td>
<td>D</td>
<td>VTA</td>
<td>The site-specific Mitigation and Monitoring Plan, as well as the drawing plan sheets showing the UPC mitigation plantings were prepared by VTA in 2011 and finalized in May, 2012. The regulators concurred by issuing permits for the project. VTA has these on file and documentation is available upon request.</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>MMRP14</td>
<td>Riparian habitat</td>
<td>SEIR-2</td>
<td>S-7</td>
<td>A detailed Riparian Restoration Plan will also be prepared to provide for the replacement of lost acreage, as well as values and functions of riparian habitat including shaded riparian aquatic cover habitat. The plan will identify locations of restoration opportunities and detail a technical approach to create high-quality riparian and shaded riverine aquatic habitat.</td>
<td>D</td>
<td>VTA</td>
<td>The site-specific Mitigation and Monitoring Plan includes a Riparian Restoration Plan as part of the drawing plan sheets showing the UPC mitigation plantings. These were prepared by VTA in 2011 and finalized in May, 2012. The regulators concurred by issuing permits for the project. VTA has these on file and documentation is available upon request.</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>MMRP15</td>
<td>Riparian habitat</td>
<td>FES</td>
<td>B1X-1</td>
<td>Existence of Riparian Habitat. VTA will design all project facilities to avoid temporary and permanent adverse effects to riparian habitat to the maximum extent practicable. Central Coast cottonwood-sycamore riparian forest areas identified along Upper Penitencia will be identified and marked with protective orange fencing to avoid disturbance or accidental intrusion by workers or equipment.</td>
<td>D</td>
<td>Contractor</td>
<td>COMPLETE</td>
<td>3Q 2011</td>
</tr>
<tr>
<td>MMRP16</td>
<td>Riparian habitat</td>
<td>FES</td>
<td>B1X-2</td>
<td>Compensation for Adverse Effect to Riparian Habitat. If avoidance is not feasible, adverse effects to the riparian habitat will be mitigated at ratios based on the quality of habitat to be affected. A 3:1 ratio or another ratio would be determined in consultation with California Department of Fish and Game (CDFG). A detailed riparian restoration plan will be prepared. This plan will provide for the replacement of lost acreage as well as values and functions of riparian habitat, including shaded riparian aquatic cover vegetation, and locations of restoration opportunities, with a technical approach to create high-quality riparian and shaded riverine aquatic cover habitat. Mitigation for adverse effects to riparian habitat will be in-kind, except that non-native species will be replaced with commercially available native species common to the planting area, and on-site to the maximum extent practicable. If mitigation cannot be accommodated entirely on-site, VTA will coordinate with CDFG to identify other potential riparian mitigation sites within the affected watershed. A qualified biologist, in coordination with resource agency personnel, will prepare a mitigation and monitoring plan for adverse effects to riparian habitat due to the project.</td>
<td>D</td>
<td>VTA</td>
<td>COMPLETE</td>
<td>3Q 2011</td>
</tr>
<tr>
<td>MMRP17</td>
<td>Protection of special status species – Southwestern Pond Turtle</td>
<td>SEIR-2</td>
<td>B-8</td>
<td>A qualified biologist will conduct pre-construction surveys for southwestern pond turtles 300 feet upstream and downstream of applicable project areas no more than 24 hours prior to the onset of in-water construction activities. Individual pond turtles are located, they will be captured by a qualified biologist and relocated to the nearest suitable habitat upstream or downstream of the work area. If individuals are relocated, the contractor will install barrier fencing along each side of the work area to prevent individual turtles from re-entering the area. If barrier fencing is installed, a qualified biologist will conduct relocation surveys for three subsequent, consecutive days to ensure that all animals are removed from the work area. (Also see Mitigation Measures C-14 and C-15.)</td>
<td>C Contractor for construction fencing. VTA for biological surveys and species relocation.</td>
<td>COMPLETE</td>
<td>3Q 2011</td>
<td></td>
</tr>
<tr>
<td>MMRP18</td>
<td>Protection of special status animal species – general</td>
<td>SEIR-2</td>
<td>B-9</td>
<td>Areas occupied by Western burrowing owls or other special status species will be avoided to the maximum extent practicable.</td>
<td>C Contractor</td>
<td>COMPLETE</td>
<td>4Q 2012</td>
<td></td>
</tr>
<tr>
<td>MMRP19</td>
<td>Protection of special status species – nesting raptors</td>
<td>SEIR-2</td>
<td>B-10</td>
<td>No mitigation is required if construction activities occur during the non-breeding season of nesting raptors (generally September through January).</td>
<td>C Contractor</td>
<td>COMPLETE</td>
<td>4Q 2012</td>
<td></td>
</tr>
<tr>
<td>MMRP20</td>
<td>Protection of special status species – nesting raptors</td>
<td>SEIR-2</td>
<td>B-11</td>
<td>During the breeding season (generally February through August), pre-construction surveys for nesting raptors will be conducted by a qualified biologist to ensure that raptor nests will not be disturbed by construction activities. During each survey, all trees and suitable grassland habitat within 250 feet of the construction site will be inspected. If no nesting raptors are observed in the area surveyed, no further mitigation is required. (Also see Mitigation Measure C-17.)</td>
<td>C VTA</td>
<td>COMPLETE</td>
<td>4Q 2012</td>
<td></td>
</tr>
<tr>
<td>MMRP21</td>
<td>Protection of special status species – nesting raptors</td>
<td>SEIR-2</td>
<td>B-12</td>
<td>If an active raptor nest were found close enough to the construction site to be disturbed, a qualified biologist, in consultation with USFWS and CDFG, would determine the extent of a construction-free buffer zone (typically 250 feet) to be established around the nest. VTA will require that no grading or other construction activities be allowed within this buffer during the nesting season or until the young have fledged, except as approved by USFWS or CDFG. (Also see Mitigation Measure C-18.)</td>
<td>C VTA</td>
<td>COMPLETE</td>
<td>4Q 2012</td>
<td></td>
</tr>
<tr>
<td>MMRP22</td>
<td>Protection of special status species – nesting swallows and other migratory birds</td>
<td>SEIR-2</td>
<td>B-13</td>
<td>If construction activities are scheduled to occur during the nesting season of swallows and other migratory birds (generally March through August), a pre-construction survey for nesting activity will be conducted prior to construction. If active nests are identified in close proximity to construction work, a biological monitor will monitor the nests when work begins. If the biological monitor, in consultation with CDFG, determines that construction activities are disturbing adults incubating eggs or young in the nest, then no work zone buffer will be established by the biological monitor around the nest until the young have fledged and the nest is no longer active. If the biological monitor, in consultation with CDFG, determines that construction occurring in proximity to active nests is not disturbing adults or young, then construction activities can continue. Nests that have been determined to be inactive (with no eggs or young) can be removed with CDFG approval. (Also see Mitigation Measures C-19 to C-22.)</td>
<td>C VTA</td>
<td>COMPLETE</td>
<td>4Q 2018</td>
<td></td>
</tr>
<tr>
<td>MMRP23</td>
<td>Protection of special status species – roosting bats</td>
<td>SEIR-2</td>
<td>B-14</td>
<td>A qualified biologist will conduct pre-construction surveys in suitable areas to determine the presence of roosting bats. If bats are roosting within the project area beneath a bridge, in a building, or in riparian habitat, then appropriate modifications to construction time and method will be implemented in accordance with CDFG approved. Modifications may include timing construction activities to avoid breeding periods, establishment of buffers, or biological monitoring. In some cases, bats may be actively encouraged to avoid roosting in the area affected prior to the onset of construction activities. (Also see Mitigation Measures C-21 and C-22.)</td>
<td>C VTA for preconstruction survey. Contractor for modifications to construction time &amp; method</td>
<td>COMPLETE</td>
<td>3Q 2018</td>
<td></td>
</tr>
</tbody>
</table>

Documentation of prior surveys completed is available upon request. THIS MITIGATION IS COMPLETE.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect migratory nesting birds. Thus, no additional pre-construction surveys or biological monitoring for nesting birds is required.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect roosting bats. Thus, no additional pre-construction surveys or biological monitoring for roosting bats is required.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect nesting birds. Thus, no additional pre-construction surveys or biological monitoring for nesting birds is required.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect nesting birds. Thus, no additional pre-construction surveys or biological monitoring for nesting birds is required.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect nesting birds. Thus, no additional pre-construction surveys or biological monitoring for nesting birds is required.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect nesting birds. Thus, no additional pre-construction surveys or biological monitoring for nesting birds is required.
Community Services and Facilities

MMRP24  
City of Milpitas Parkland  
FERR  
CS-1

Some combination of the following measures will be implemented through coordination between VTA and the City of Milpitas to address parkland impact: acquire replacement park property immediately adjacent to the parkland site; expand a nearby park; provide additional amenities at the affected parkland site; and/or assist in funding a pedestrian crossing over the railroad corridor that would link and facilitate access to the affected park, possibly at Curtis Avenue. As an alternative to the above measures, VTA would pay an in-lieu fee to the City of Milpitas equivalent to the cost of the development of a replacement park. This was suggested by the City of Milpitas in their comments on the Draft EIR.

VTA and the City of Milpitas agreed to payment of an in-lieu fee for the Montague Pedestrian Overcrossing Project to meet this mitigation requirement.

The City is constructing the Pedestrian Overcrossing. The Montague Pedestrian Overcrossing project will advertise for bid on 3/4/19. The pre-bid conference is scheduled for 3/14/19 and bid opening is scheduled for 4/8/19.

VTA's in-lieu fee commitment has been met and exceeded, and documentation of the expenditure is available upon request.

Cultural and Historic Resources

MMRP25  
Archaeological resources  
FERR  
CR-1

Because it is reasonable to conclude that cultural resources are likely to be discovered during implementation of the project, the process for addressing impacts and avoiding, minimizing, or mitigating adverse effects on historic properties will be developed in advance and included in a Memorandum of Agreement (MOA) or Programmatic Agreement, if determined appropriate and supporting Cultural Resources Treatment Plan (CRTP). (Also see Mitigation Measure C-23.)

1Q 2010

D  
VTA  
COMPLETE

MMRP26  
Archaeological resources  
FERR  
CR-2

The MOA and CRTP will be developed in consultation with: the Native American community, Hispanic historical organizations, appropriate city and county historic preservation bodies, the State Historic Preservation Officer (SHPO), and Advisory Council on Historic Preservation (ACHP). The Federal Transit Administration (FTA), VTA, SHPO, and ACHP will be signatories to the agreement document. (Also see Mitigation Measure C-23.)

1Q 2010

D  
VTA  
COMPLETE

MMRP27  
Archaeological resources  
FERR  
CR-3

The CRTP will:

1. Specify the National Register of Historic Properties criteria that will be applicable, the procedures to be used to implement the Section 106 process in the field, and the standards of evaluation that will be appropriate given the locations and kinds of cultural properties predicted.
   - present methods that combine pre-testing where possible (i.e., on open lots or undeveloped lands); testing after demolition of extant structures but before new ground-disturbing construction begins; construction-phase monitoring where appropriate; and standards for data-recovery.
   - include a field investigation provision for areas within the Area of Potential Effect where potential resources have been identified, or that are designated as high or moderately sensitive. Field investigations will concentrate on, but will not be confined to, the area of direct impact.

D  
VTA  
COMPLETE

As of 4Q 2018, Far Western is preparing the final report, as stipulated in the Programmatic Agreement. VTA will receive this report in 1Q 2019. After VTA review, VTA will submit the report to FTA and SHPO for their review. If FTA or SHPO have comments, VTA will review the report accordingly for the file.

MMRP28  
Archaeological resources  
FERR  
CR-4

VTA will comply with the terms of the MOA and CRTP. The particular mitigation measures to be written into the MOA and CRTP will be determined in consultation among the signatories and may include:

- Conducting controlled subsurface excavations at prehistoric or historic archaeological resources sites;
- Conducting subsurface exploratory trenching in large construction-element areas within high and moderately sensitive zones to determine the presence of buried deposits;
- Undertaking detailed and focused archival research of particular historic archaeological resources;
- Protecting sites or portions of sites from intrusion where practical and feasible, to minimize adverse effects;
- Conducting on-site monitoring during surface-disturbing construction activities;
- Following procedures established in the CRTP when human remains are encountered;
- Completing detailed analyses of artifacts and organic remains consistent with the parameters detailed in the CRTP;
- Preparing and distributing reports and results of the technical studies, as detailed in the CRTP;
- Providing for the creation of archaeological materials recovered from project sites;
- Adhering to the procedures detailed in the CRTP regarding how interested parties will be invited to participate; and
- Providing for a public interpretation component in the technical archaeological studies. (Also see Mitigation Measure C-23.)

D  
VTA  
COMPLETE

See MMRP27
Programmatic Agreement (PA) and a Cultural Resources Treatment Plan (CRTP) were developed and were executed by FTA, the State Historic Preservation Officer (SHPO), and VTA in consultation with the appropriate government and historic preservation bodies, and Native American community. The CRTP specifies the National Register of Historic Places (NRHP) criteria that will be applicable, the procedures to be used to implement the Section 106 process in the field, and the standards of evaluation that will be appropriate given the locations and kinds of cultural properties predicted. The CRTP also presents methods that combine pre-testing where possible (i.e., on open lots or undeveloped lands); testing after demolition of extant structures but before new ground-disturbing construction begins; construction-phase monitoring where appropriate; and standards for data recovery. In any event, areas within the Area of Potential Effect (APE) where potential resources have been identified, or that are designated as highly or moderately sensitive, will be field investigated, concentrating on, but not confined to, the areas of direct effect. The CRTP meets The Secretary of the Interior’s Standards and Guidelines for Archaeology and Historic Preservation (U.S. Department of the Interior, National Park Service, 1983, as amended and annotated).

MMRP29 Historic Archaeological properties

Unit SUB-1 Programmatic Agreement (PA) and a Cultural Resources Treatment Plan (CRTP) were developed and were executed by FTA, the State Historic Preservation Officer (SHPO), and VTA in consultation with the appropriate government and historic preservation bodies, and Native American community. The CRTP specifies the National Register of Historic Places (NRHP) criteria that will be applicable, the procedures to be used to implement the Section 106 process in the field, and the standards of evaluation that will be appropriate given the locations and kinds of cultural properties predicted. The CRTP also presents methods that combine pre-testing where possible (i.e., on open lots or undeveloped lands); testing after demolition of extant structures but before new ground-disturbing construction begins; construction-phase monitoring where appropriate; and standards for data recovery. In any event, areas within the Area of Potential Effect (APE) where potential resources have been identified, or that are designated as highly or moderately sensitive, will be field investigated, concentrating on, but not confined to, the areas of direct effect. The CRTP meets The Secretary of the Interior’s Standards and Guidelines for Archaeology and Historic Preservation (U.S. Department of the Interior, National Park Service, 1983, as amended and annotated).

D VTA See MMRP27

MMRP30 Soil and groundwater contamination

Unit FES TRA-1 Additional site-specific information will be collected and documented regarding hazardous materials use and hazardous waste generation for properties that would be acquired for ROW or support facilities. Collection of information will include visual inspections of properties or portions of properties that were inaccessible during preparation of this environmental document. Regulatory agency files will be reviewed for these properties to confirm whether soil has been affected by any reported releases and/or whether the sites are within an area where excavation will occur during construction.

D VTA COMPLETE 4Q 2014

MMRP31 Soil and groundwater contamination

Unit FES TRA-2 A Phase 1a site investigation will be completed for properties that would be acquired for ROW or support facilities for the Project in areas where soil contamination is documented, where soil contamination is nearby, or where current information regarding the extent of soil contamination is inconclusive. A Site Sampling Plan will be developed and implemented prior to any investigation. The plan will include a description of the work to be performed, the laboratory analytical methods to be used, and any specific requirements and quality control information.

D VTA COMPLETE 4Q 2014

MMRP32 Soil and groundwater contamination

Unit FES TRA-3 Additional site-specific information will be collected and documented regarding hazardous materials use and hazardous waste generation for properties that would be acquired for ROW or support facilities for the Project. Regulatory agency files will be reviewed for these properties to confirm whether groundwater has been affected by any reported releases and/or whether the sites are within an area where excavation during construction would encounter groundwater.

D VTA COMPLETE 4Q 2014

MMRP33 Soil and groundwater contamination

Unit FES TRA-4 A Phase 1a site investigation will be completed for properties that would be acquired for ROW or support facilities for the Project in areas where groundwater contamination is documented, where groundwater contamination is nearby, or where current information regarding the extent of groundwater contamination is inconclusive. A Site Sampling Plan will be developed and implemented prior to any investigation. The plan will include a description of the work to be performed, the laboratory analytical methods to be used, and any specific requirements and quality control information.

D VTA COMPLETE 4Q 2014
### Noise and Vibration

| MMRP 34 | Noise along the alignment | SEIR-2 | NV-1 | Noise mitigation includes sound walls, absorptive sound walls, absorptive acoustical materials for retaining walls, and track absorption. Table 4.13-5 in the SEIR-2 indicates the location of noise mitigation measures. At one location (STA 459+50 to STA 487+00), there is an option for either track level sound absorption panels or a middle sound barrier that would be placed between the two BART alignment tracks. Approximately 15,000 to 19,000 linear feet of sound walls would be needed, depending on the mitigation option selected. Typically, the location of a sound wall is either 10 or 13 feet from the track centerline, depending on the track profile (10 feet for the retained open cut track portions and the aerial guideway, and 13 feet for the at grade and embankment track portions of the Phase 1 alignment). In areas where a sound wall is recommended on both sides of the alignment, absorptive sound walls are the recommended noise mitigation. The locations of the noise mitigation are depicted in Figures 4.13-3A through 4.13-3K in the SEIR-2. Figures 4.13-3H and Figures 4.13-3I show the location of the track level sound absorption panel noise mitigation option and Figures 4.13-3H(a) and 4.13-3I(a) shows the location of the middle sound barrier noise mitigation option. | D | Contractor VTA-850 | 4Q 2018 | THIS MITIGATION IS COMPLETE. |
| MMRP 35 | Noise from Hostetter Road to Sierra Road | SEIR-2 | NV-2 | Approximately 2,500 feet of slab track acoustical absorption at track level shall be used to reduce adverse noise effects in the area of the alignment between Hostetter Road and Sierra Road. This mitigation shall occur between STA 459+50 and 486+50 as indicated in Table 4.13-6. Alternatively, a middle sound barrier could be installed between STA 459+50 and 486+50 and designed to achieve a similar reduction in noise levels. A two-sided, absorptive sound barrier in the middle of 51 and 52 tracks with a minimum height of 5 feet above the top of rail is an alternative to track level absorptive panels. In addition to the middle sound barrier, sound absorptive material would be required on both retaining walls of the retained cut. The sound absorptive material on the retaining walls would be placed as low as possible and cover a minimum of four feet in vertical extent. The material should possess a minimum noise reduction coefficient of 0.65 and a minimum absorption coefficient of 0.80 at 500 Hz. Should an alternative noise mitigation measure be evaluated and selected, that mitigation measure would be required to provide a comparable noise reduction. Figures 4.13-3H and 4.13-3H(a) and 4.13-3I and 4.13-I(a) in the SEIR-2 show the location of the noise mitigation options between Hostetter Road and Sierra Road. | D | Contractor | COMPLETE | 2Q 2017 |
## Vibration Mitigation

### NV-3 Table 4.13-9 in the SEIR-2 summarizes the vibration mitigation necessary to achieve the FTA criteria. The proposed mitigation is tire derived aggregate and 8-Hz FST. The vibration testing should replicate the testing presented to the FTA in 2009. The technical evaluation will then be presented to the FTA for review and comment.

<table>
<thead>
<tr>
<th>Task</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise and Vibration</td>
<td>FES Section 4.13-5, 4.13-6, 4.13-7</td>
</tr>
<tr>
<td>Noise and Vibration</td>
<td>FEIR Section 4.18.4.4</td>
</tr>
</tbody>
</table>

### NV-4 A 1250-foot long, 10-foot high absorptive sound wall shall be installed along the west (S1) side of the track from STA 493+50 to STA 506+00, D Contractor COMPLETE 2Q 2016.

### NV-5 An 830-foot long, 14- to 15-foot high sound wall shall be installed along the west (S1) side of the track from STA 168+20 to STA 176+50, D Contractor COMPLETE 2Q 2016.

### NV-6 A 300-foot long, 8-foot high sound wall shall be installed along the east (S2) side of the track from STA 181+00 to STA 184+00, D Contractor COMPLETE 2Q 2016.

### NV-7 An 350-foot long, 7-foot high sound wall shall be installed along the east (S2) side of the track from STA 409+00 to STA 412+50, D Contractor COMPLETE 1Q 2017.

### NV-8 A 1050-foot long, 7-foot high sound wall shall be installed along the east (S2) side of the track from STA 412+50 to STA 423+00, D Contractor COMPLETE 1Q 2017.

---

*The Residential Noise Insulation Program (RNIP) and construction of the sound walls/absorption materials are complete and closed.*

VTA and FTA discussed post-operation testing in depth at the all-day meeting with FTA in May 2018. If SVBX operational noise testing is performed it will be after revenue service operations to ensure representative data is obtained. Results of any such testing will be provided to FTA upon request.

**VTA and FTA:**

**VTA:**

VTA will complete TDA testing at its Vasona LRT line prior to SVBX revenue service operations.

**FTA:**

VTA will complete TDA testing at its Vasona LRT line prior to SVBX revenue service operations.
NV-21
Noise and Vibration
FESS

Testing to Confirm Slab Track Acoustical Absorption. During the project start-up phase and
Contractor COMPLETE

2Q 2016

NV-12
Noise and Vibration
FESS

4,720-foot long, 8-foot high sound wall shall be installed along the east (S2) side of the
track from STA 423+00 to STA 440+30. Actual is 11.33ft. High
Actual is 11.33ft. High

D Contractor COMPLETE

2Q 2016

Vibration

insulation and other measures will be provided for residences with second floors or higher
that are exposed to noise levels in excess of FTA criteria. The mitigation will be designed to
achieve an interior noise level of 45 Ldn where feasible. In addition to the recommended sound walls and retrofitting of multi-story residences with
improved exterior sound insulation, sound absorptive material on the inside face of the
structure would be necessary. This mitigation would primarily be needed for areas where the
alignment runs in a retained cut.

To further reduce noise impacts to multi-story residences a sound wall would be constructed
on both sides of the track where the corridor is narrow (50 feet or less). Installation of sound
absorptive material on the inside face of retaining walls and sound walls would further
reduce sound levels by as much as 2 dBA. Otherwise, adverse noise effects could result in
noise levels in excess of the FTA criteria. The location and length of recommended sound
wall absorptive material that would be necessary on both sides of the track in addition to the
absorptive sound wall specified in measures NV-2 through NV-19 is as follows:

- 2620-foot length from STA 460+80 to STA 487+00
- 1670-foot length from STA 491+80 to STA 508+50

D Contractor COMPLETE

1Q 2017

Vibration

MMRP52 Noise and Vibration FESS NV-13 A 1720-foot long, 8-foot high sound wall shall be installed along the east (S2) side of the
track from STA 447+50 to STA 452+30.

D Contractor COMPLETE

2Q 2016

Vibration

MMRP53 Noise and Vibration FESS NV-14 A 900-foot long, 10-foot high absorptive sound wall shall be installed along the east (S2)
side of the track from STA 497+00 to STA 506+00.

D Contractor COMPLETE

2Q 2016

Vibration

MMRP54 Noise and Vibration FESS NV-15 A 1300-foot long, 10-foot high absorptive sound wall shall be installed along the east (S2)
side of the track from STA 497+00 to STA 506+00.

D Contractor COMPLETE

2Q 2016

Vibration

MMRP55 Noise and Vibration FESS NV-17 A 350-foot long, 4-foot high sound wall shall be installed along the east (S2) side of the
track from STA 475+50 to STA 486+50.

D Contractor COMPLETE

2Q 2016

Vibration

MMRP56 Noise and Vibration FESS NV-18 A 350-foot long, 4-foot high sound wall shall be installed along the east (S2) side of the
track from STA 512+00 to STA 515+00.

D Contractor COMPLETE

2Q 2016

Vibration

MMRP57 Noise and Vibration FESS NV-19 A 550-foot long, 4-foot high sound wall shall be installed along the east (S2) side of the
track from STA 515+50 to STA 521+00.

D Contractor COMPLETE

2Q 2016

Vibration

MMRP58 Noise and Vibration FESS NV-20 Tire-Derived Aggregate Vibration Mitigation

Tire-derived aggregate will be installed from:

- STA 167+00 to STA 169+79
- STA 172+80 (extent of crossover) to STA 177+00
- STA 264+00 TO STA 266+30 (implement TDA or comparable mitigation)
- STA 418+00 TO 432+00 (implement TDA or comparable mitigation)
- STA 432+00 TO 448+00 (implement TDA or comparable mitigation)

D Contractor COMPLETE

3Q 2016

Vibration
<table>
<thead>
<tr>
<th>MMRP06</th>
<th>Noise and Vibration</th>
<th>FES</th>
<th>NV-26</th>
<th>Dixon Landing Retained Cut Tire-Derived Aggregate Vibration Mitigation – Install tire-derived aggregate from: STA 204+20 to 209+00 (implement TDA or comparable mitigation)</th>
<th>D</th>
<th>Contractor</th>
<th>COMPLETE</th>
<th>2Q 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMRP04</td>
<td>Noise and Vibration</td>
<td>FES</td>
<td>NV-25</td>
<td>Dixon Landing Retained Cut Floating Slab Vibration Mitigation – install 8 Hz floating slab from STA 181+50 to STA 183+60 STA 197+50 to STA 204+20.</td>
<td>D</td>
<td>Contractor</td>
<td>COMPLETE</td>
<td>2Q 2016</td>
</tr>
<tr>
<td>MMRP05</td>
<td>Noise and Vibration</td>
<td>FES</td>
<td>NV-25</td>
<td>Floating Slab Vibration Mitigation – install 8 Hz floating slab from: STA 169+79 to 172+80 (arcsides of crossover) STA 268+30 to STA 287+00 STA 321+50 to STA 327+40 STA 392+20 to STA 396+50 STA 459+50 to STA 466+50 STA 479+50 to STA 484+50 STA 480+30 to STA 508+00 STA 506+00 to STA 519+50 (north end of bridge over Berryessa Rd)</td>
<td>D</td>
<td>Contractor</td>
<td>COMPLETE</td>
<td>3Q 2016</td>
</tr>
<tr>
<td>MMRP66</td>
<td>Noise and Vibration</td>
<td>FES</td>
<td>NV-27</td>
<td>Evaluation of Installed Tire-Derived Aggregate. Upon project start-up, VTA will perform further testing on tire-derived aggregate underlayment at its Vasona LRT Line. The vibration testing should replicate the testing completed by Wilton, Ihrig &amp; Associates and presented to FTA in 2009: Evaluation of Tire Derived Aggregate as Installed Beneath Ballast and Tie Light Rail Track, May 2009. The technical evaluation will then be presented to FTA</td>
<td>P</td>
<td>VTA</td>
<td>VTA will complete TDA testing at its Vasona LRT line prior to SVBX revenue service operations.</td>
<td>3Q 2016</td>
</tr>
<tr>
<td>MMRP07</td>
<td>Noise and Vibration</td>
<td>FES</td>
<td>NV-28</td>
<td>Additional Sound Walls. In addition to those included in the table [5.10-6], a 12 ft. high soundwall will be designed at The Crossings at Montague apartments to ensure that FTA noise criteria will be achieved.</td>
<td>D</td>
<td>Contractor</td>
<td>COMPLETE</td>
<td>4Q 2016</td>
</tr>
<tr>
<td>MMRP08</td>
<td>Noise and Vibration</td>
<td>FES</td>
<td>NV-29</td>
<td>Additional Sound Walls. In addition to those included in the table [5.10-6], electrical facilities south of Trade Zone Blvd. may need a sound barrier of no higher than 8 ft. (depending on final design) to achieve FTA noise criteria.</td>
<td>D</td>
<td>Contractor</td>
<td>COMPLETE</td>
<td>4Q 2017</td>
</tr>
<tr>
<td>MMRP09</td>
<td>Noise and Vibration</td>
<td>FES</td>
<td>NV-29</td>
<td>Community Wall at Berryessa Station. The Project includes an 8-foot high community wall along residential areas to the east. This community wall would reduce Severe Impacts to a Moderate or less impact for the North Option except for the portion between Berryessa Road and the residential area to the north of Salamoni Court. An 8-foot high noise barrier would need to continue northward along the future transit facility surface parking lot and access road to Berryessa Road to reduce this noise impact to less than severe. With this community wall, the second story residences along Salamoni Court and on the eastern boundary to Mabury Road may still be impacted depending on the noise insulation reduction capability of existing residential construction. The need for additional noise insulation of these residences would need to be determined on a residence by residence basis.</td>
<td>D</td>
<td>Contractor</td>
<td>COMPLETE</td>
<td>3Q 2016</td>
</tr>
</tbody>
</table>
### Visual Quality and Aesthetics

<table>
<thead>
<tr>
<th>Mitigation Number</th>
<th>Description</th>
<th>FES</th>
<th>SEIR</th>
<th>VTA</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMRP70</td>
<td>Visual quality - tree replacement</td>
<td>FEIS</td>
<td>VSB-1</td>
<td>D</td>
<td>VTA</td>
</tr>
<tr>
<td></td>
<td>Replacement of Trees at Station Areas. Removed trees will be replaced at a 1:1 ratio within the relevant visual analysis area.</td>
<td>D</td>
<td>VTA</td>
<td>4Q 2018</td>
<td></td>
</tr>
</tbody>
</table>

The following tree removal and replacement ratios apply to the two station areas that comprise the relevant visual analysis area:

- SVBX Total Trees Removed:
  - Milpitas: 112
  - San Jose: 596
- SVBX Total Trees Planted:
  - Milpitas: 531 container trees
  - San Jose: 881 container trees

The trees planted are shown in the landscaping drawings of the following contracts C700, C742, C730, C741, and C640, and are available for review upon request.

As of 4Q 2018 no further tree removals or replacements are anticipated.

**THIS MITIGATION IS COMPLETE**

### Flood-proof structures

<table>
<thead>
<tr>
<th>Mitigation Number</th>
<th>Description</th>
<th>SEIR</th>
<th>VTA</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMRP71</td>
<td>Flood-proof structures</td>
<td>WR-1</td>
<td>D</td>
<td>Contractor</td>
</tr>
<tr>
<td></td>
<td>Retained cut sections, retained fill sections, station entrances, and access points should maintain 6 inches to 1 foot of freeboard above the base 100-year flood elevation, as required.</td>
<td>WR-1</td>
<td>D</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

**THIS MITIGATION IS COMPLETE.**

### Construction Education and Outreach Plan

<table>
<thead>
<tr>
<th>Mitigation Number</th>
<th>Description</th>
<th>FES &amp; SEIR</th>
<th>VTA</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMRP72</td>
<td>Construction Outreach and Education Plan</td>
<td>CNST-1</td>
<td>D</td>
<td>VTA</td>
</tr>
<tr>
<td></td>
<td>A Construction Outreach and Education Plan will be developed by VTA prior to construction commencing to foster communication between VTA, various municipalities, and the public during the construction phase. The plan will be implemented to coordinate construction activities with existing business operations and other development projects, and establish a process that will adequately address the concerns of businesses and their customers, property owners, residents, and commuters. Critical components of this plan will include but are not limited to the following outreach strategies:</td>
<td>CNST-1</td>
<td>D</td>
<td>VTA</td>
</tr>
<tr>
<td></td>
<td>- Frequent updates to stakeholder groups, business organizations, and municipalities;</td>
<td>CNST-1</td>
<td>D</td>
<td>VTA</td>
</tr>
<tr>
<td></td>
<td>- Public workshops and meetings with community members;</td>
<td>CNST-1</td>
<td>D</td>
<td>VTA</td>
</tr>
<tr>
<td></td>
<td>- Distribution of project information and advanced construction notification via flyers, emails, mailers and face-to-face visits;</td>
<td>CNST-1</td>
<td>D</td>
<td>VTA</td>
</tr>
<tr>
<td></td>
<td>- Continuous share of project information/contacts posted to website;</td>
<td>CNST-1</td>
<td>D</td>
<td>VTA</td>
</tr>
<tr>
<td></td>
<td>- Media relations, i.e. news releases, news articles, interviews; and</td>
<td>CNST-1</td>
<td>D</td>
<td>VTA</td>
</tr>
<tr>
<td></td>
<td>- Onsite outreach coordinator/personnel.</td>
<td>CNST-1</td>
<td>D</td>
<td>VTA</td>
</tr>
</tbody>
</table>

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas, which will not substantially affect the public or stakeholders. Outreach regarding revenue service is addressed separately from this mitigation measure, which relates to the Construction Education and Outreach Plan.

Documentation of prior outreach activities is available upon request.

**THIS MITIGATION IS COMPLETE**
| MMRP73 | Construction Contractors shall implement the BAAQMD Basic Construction Mitigation Measures listed below and the applicable measures in the Additional Construction Mitigation Measures, also listed below. This includes Measure 10 in the Additional Construction Mitigation Measures. | C | Contractor implementation of the BAAQMD minimum and 10 additional mitigation measures were required in the contract specifications: 01 57 00 Temporary Controls, 01 35 70 Environmental Requirements, and 01 35 72, Water Pollution Control. As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work north of Dixon Lending Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on May 14, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes. Documentation of NoT acceptance is on file at VTA and available upon request. THIS MITIGATION IS COMPLETE |
| MMRP74 | All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. | C | All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) were watered during active construction. The SWPPP for all work north of Dixon Lending Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018. As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes. Documentation of NoT acceptance is on file at VTA and available upon request. THIS MITIGATION IS COMPLETE |
| MMRP75 | All haul trucks transporting soil, sand, or other loose material off-site shall be covered. | C | All haul trucks transporting soil, sand, or other loose material off-site were covered during active construction in accordance with Section 3.2.2 of the Dixon North SWPPP, Section 3.2.2 of the Dixon South SWPPP, and in accordance with BMP WM-05 for Dust Control. Photo documentation showing compliance with this mitigation measure is available upon request. The SWPPP for all work north of Dixon Lending Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018. As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes. Documentation of NoT acceptance is on file at VTA and available upon request. THIS MITIGATION IS COMPLETE |
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

C Contractor

During active construction all visible mud or dirt track-out onto adjacent public roads was removed using wet power vacuum street sweepers at least once per day, and the use of dry power sweeping was prohibited, in accordance with Section 3.2.2 of the Dixon North SWPPP, and Section 3.2.2 of the Dixon South SWPPP, in accordance with BMP TC-1 for Dust Control. The Dust Control Plan, Section 4.2.1 Track-out Prevention, also included the requirement to use wet power vacuum street sweeping devices. Photo documentation of compliance with this measure is available upon request.

The SWPPP for all work north of Dixon Landing Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board's concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is on file at VTA and available upon request.

THIS MITIGATION IS COMPLETE

4Q 2018

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

C Contractor

During active construction all vehicle speeds on unpaved roads were limited to 15 mph in accordance with the Dust Control Plan, Section 4.2.2 Unpaved Surfaces.

The VTA environmental compliance inspector performed spot inspections in the field during construction, and no speeding was observed. Photo documentation of speed limit signs installed is available upon request.

The SWPPP for all work north of Dixon Landing Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board's concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is on file at VTA and available upon request.

THIS MITIGATION IS COMPLETE

4Q 2018

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

C Contractor

during active construction all roadways, driveways, and sidewalks to be paved were completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders were used, in accordance with Section 3.1 of the Dixon North SWPPP and Section 3.1 of the Dixon South SWPPP, and in accordance with BMP EC-4 for Erosion Control.

The SWPPP for all work north of Dixon Landing Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board's concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is on file at VTA and available upon request.

THIS MITIGATION IS COMPLETE

4Q 2018
<table>
<thead>
<tr>
<th>MMRP79</th>
<th>Construction Emissions</th>
<th>SEIR-2</th>
<th>CNST- AQ-1(9)</th>
<th>P-MND</th>
<th>AQ-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California air toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</td>
<td>During active construction, idling times were minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes in accordance with spec section 01 75 00 and Mitigation #1 of the project’s Emissions Control Plan (and as required by the California air toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Inspections related to idling are performed by Associates Environmental on a quarterly basis and documented in quarterly emission inspections reports, which are available upon request. The Construction Equipment Mitigation Plan (CEMP) for the project states the idle limits that the C700 contractor are as follows: Vehicles subject to the regulation may not idle for more than five consecutive minutes. However, the idling limit does not apply to necessary idling such as idling to verify that a vehicle is in safe operating condition, for testing, servicing, repairing, or diagnostic purposes, or to accomplish work for which the vehicle was designed. Medium and large fleets are also required to have a written idling policy made available to the operators of the vehicles that informs them of this five-minute idling limit. Signage regarding idling was installed at all access points. Photo-documentation of the signage is available upon request. In addition, pre-project training sessions for construction workers covered idling requirements. As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. All construction equipment under C700 was demobilized this quarter (4Q 2018). THIS MITIGATION IS COMPLETE</td>
<td>C</td>
<td>Contractor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMRP80</th>
<th>Construction Emissions</th>
<th>SEIR-2</th>
<th>CNST- AQ-1(9)</th>
<th>P-MND</th>
<th>AQ-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</td>
<td>During active construction, all construction equipment was maintained and properly tuned in accordance with manufacturer’s specifications, and was checked by a certified mechanic and determined to be running in proper condition prior to operation in accordance with the Dixon North SWPPP, and the Dixon South SWPPP. Example daily mechanics sheets were visually examined by VTA Environmental Compliance. All records are hard copy only, and were stored during active construction by the contractor (SSH). The SWPPP for all work north of Dixon Landing Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018. As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes. Documentation of NoT acceptance is on file at VTA and available upon request. THIS MITIGATION IS COMPLETE</td>
<td>C</td>
<td>Contractor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMRP81</th>
<th>Construction Emissions</th>
<th>SEIR-2</th>
<th>CNST- AQ-1(9)</th>
<th>P-MND</th>
<th>AQ-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours.</td>
<td>During active construction, large signs were located at most visible locations along the project alignment including at Berryessa Road, Berryessa Station, Sierra/Lundy intersection, Hogwarts Road, Trade Zone, Capital/Montague intersection, and Dixon Landing Road. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations. As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. Photo documentation of public signage is on file at VTA and available upon request. THIS MITIGATION IS COMPLETE</td>
<td>C</td>
<td>Contractor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMRP82</th>
<th>Construction Emissions</th>
<th>SEIR-2</th>
<th>CNST- AQ-1(9)</th>
<th>P-MND</th>
<th>AQ-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Additional Construction Mitigation Measures. The following measures are recommended for projects with construction emissions above the threshold.</td>
<td>THIS MITIGATION IS COMPLETE</td>
<td>C</td>
<td>Contractor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### MMRP83 - Construction Emissions

**SEIR-2 CNST-AQ-2(1)**

1. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

**C Contractor**

During active construction, all exposed surfaces were watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content was verified visually, not with lab samples or moisture probe. Due to restrictions on watering, watering was performed in accordance with drought regulations as needed to ensure that there were no visible dust emissions, in accordance with section 3.1 of the Dixon North SWPPP, Section 3.1 of the Dixon South SWPPP, and Dust Control Plan Section 4.5. This is required by BMP WE-1 for Dust Control. Photo documentation is available upon request.

The SWPPP for all work north of Dixon Landing Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is on file at VTA and available upon request.

**THIS MITIGATION IS COMPLETE**

### MMRP84 - Construction Emissions

**SEIR-2 CNST-AQ-2(2)**

2. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.

**C Contractor**

During active construction, all excavation, grading, and/or demolition activities were suspended when average wind speeds exceeded 20 mph in accordance with section 3.1 of the Dixon North SWPPP and Section 3.1 of the Dixon South SWPPP, in accordance with BMP WE-1 for Dust Control. Photo documentation is available upon request.

The SWPPP for all work north of Dixon Landing Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is on file at VTA and available upon request.

**THIS MITIGATION IS COMPLETE**

### MMRP85 - Construction Emissions

**SEIR-2 CNST-AQ-2(3)**

3. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have a maximum 50 percent air porosity.

**C Contractor**

During active construction, wind breaks, including peep screen with maximum 50 percent air porosity installed on chain link fences, were installed on the windward side(s) of actively disturbed areas of construction at the northwest area of the Milpitas Station and along the northern end of the Berryessa Station, where right-of-way allowed. Wind breaks were also installed where the guideway alignment crosses roadways. These wind breaks were installed parallel to the roadways, as winds generally comes from north to south. Photo documentation is available upon request.

The SWPPP for all work north of Dixon Landing Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is on file at VTA and available upon request.

**THIS MITIGATION IS COMPLETE**
Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

The SWPPP for all work north of Dixon Landing Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is available upon request.

THIS MITIGATION IS COMPLETE

The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

The SWPPP for all work north of Dixon Landing Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is available upon request.

THIS MITIGATION IS COMPLETE

All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

Due to water use restrictions and in accordance with local municipal ordinances, trucks were brushed off, NOT washed off, before leaving the site. In addition, all trucks and equipment, including their tires, utilized rock entrances/exits to access in order to control tracking from the project site onto roadways, in accordance with Section 3.2.2 of the Dixon North SWPPP and Section 3.2.2 of the Dixon South SWPPP, in accordance with BMP TC-3 for Tracking Control. Tire washing was only during the off-haul of contaminated soils. Photo documentation is available upon request.

The SWPPP for all work north of Dixon Landing Road was terminated and the Notice of Termination was accepted by the State Water Resources Control Board on May 14, 2018.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is available upon request.

THIS MITIGATION IS COMPLETE
7. Site access to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.

C Contractor

Each site access to a distance of 50-100 feet from paved road was treated with a 6-inch compacted layer of rock in accordance with section 3.2.2 of the Dixon North SWPPP and Section 3.2.2 of the Dixon South SWPPP, in accordance with BMP TC-1 for Tracking Control. Photo documentation is on file at VTA and is available upon request.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is on file at VTA and available upon request.

THIS MITIGATION IS COMPLETE

8. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.

C Contractor

Sandbags, silt fence, and fiber rolls were installed to prevent silt runoff to public roadways from sites with a slope greater than one percent in accordance with section 3.2.2 of the Dixon North SWPPP and Section 3.2.2 of the Dixon South SWPPP, in accordance with BMP SE-1, 3, 4, and 5 for Sediment Control. Photo documentation is on file at VTA and is available upon request.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. The SWPPP for all work south of Dixon Landing Road was terminated and the Notice of Termination (NoT) was accepted by the State Water Resources Control Board on October 12, 2018. NoT acceptance indicates the State Board’s concurrence that all areas disturbed during construction are stabilized for water quality and air quality purposes.

Documentation of NoT acceptance is on file at VTA and available upon request.

THIS MITIGATION IS COMPLETE

9. Minimizing the idling time of diesel powered construction equipment to two minutes.

C Contractor

The Construction Equipment Mitigation Plan (CEMP) sets the idle limits that the contractor adheres to, as follows: “Vehicles subject to this regulation may not idle for more than five consecutive minutes. However, the idling limit does not apply to necessary idling such as idling to verify that a vehicle is in safe operating condition, for testing, serving, repairing, or diagnostic purposes, or to accomplish work for which the vehicle was designed. Medium and large fleets are also required to have a written idling policy made available to the operators of the vehicles that informs them of this five-minute idling limit.” Note that the spec allows up to 5 minutes of idling time for vehicles (as per MMRP79), not 2-minutes which is only applied to diesel powered construction equipment such as a vibratory hammer in accordance with this mitigation measure MMRP 91 and the BAAQMD CEQA guidelines (excerpt saved on the VTA ENV Drive and available upon request).

The only diesel powered non-vehicular equipment that was used on the C700 project were the generators (which were in service, not idling, and are addressed by other mitigation measures), diesel vibratory hammers and the pile driver hammer.

Inspections were performed by Associates Environmental on a quarterly basis. QUARTERLY VISIBLE EMISSION OBSERVATIONS REPORTS were submitted to VTA as required per spec 01 75 00 and are available upon request.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. Third party inspections are no longer being performed, and all construction equipment is demobilized.

THIS MITIGATION IS COMPLETE.
| MMRP92 | Construction Emissions | SEIR-2 | CNST-2 | AQ-2 | 10. Phase 1 shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project-wide fleet average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. For the Upper Penitencia Creek improvements (only), all diesel powered construction equipment shall install diesel particulate filters to achieve a 75% reduction in PM emissions, compared to the state-wide fleet average, on all construction equipment. |
| C Contractor | The C700/SSH Contractor constructed both the alignment and Upper Penitencia Creek improvements. The fleet averages for construction emissions were held to 2010 levels in accordance with the project Construction Emissions Mitigation Plan, which was approved 6/28/2012. Documentation of compliance with the reductions that were in effect at the time of construction is on file at VTA and is available upon request. Full implementation of the Construction Emissions Mitigation Plan is complete as of 4Q 2018. Independent emissions reports were received from 3Q 2013 to 3Q 2014 during mobilization of new equipment by SSH, until no new equipment was mobilized to the site. Inspections were performed by Associates Environmental on a quarterly basis. QUARTERLY VISIBLE EMISSION OBSERVATIONS REPORTS were submitted to VTA as required per spec 01 75 00. All equipment emissions were compliant as indicated in the reports, which are on file at VTA and are available upon request. As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. Third party inspections are no longer being performed, and all construction equipment is demobilized. THIS MITIGATION IS COMPLETE. |
| MMRP93 | Construction Emissions | SEIR-2 | CNST-2 | AQ-2 | 11. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3, Architectural Coatings). |
| C Contractor | The requirement for low VOC paint is addressed in the Sustainability Plan, Matrix Mandatory Item 107 (TS 01 35 74). VTA environmental oversight includes spot checks performed periodically during site inspections of work that includes painting. As of 4Q 2018, the vast majority of construction is complete, and all that remains is completion of punch list items within previously constructed areas. All painting is complete. Photo documentation of the use of low VOC paints is on file at VTA and is available upon request. THIS MITIGATION IS COMPLETE. |
| MMRP94 | Construction Emissions | SEIR-2 | CNST-2 | AQ-2 | 12. Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM. |
| C Contractor | The C700/SSH Contractor’s Construction Emissions Mitigation Plan, approved 6/28/2012, required that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM. Full implementation of the C700 Construction Emissions Mitigation Plan is complete as of 3Q 2018. Independent emissions reports were received from 3Q 2013 to 3Q 2014 during mobilization of new equipment by SSH, until no new equipment was mobilized to the project site. Inspections were performed by third party Associates Environmental on a quarterly basis, see QUARTERLY VISIBLE EMISSION OBSERVATIONS REPORTS that were submitted to VTA as required by spec 01 75 00. Third party inspections are no longer performed and no reports have been generated since no new equipment is being mobilized. All equipment emissions were compliant as indicated in the reports, on file at VTA and available upon request. VTA environmental oversight of all other contract includes spot checks performed periodically during site inspections of construction work, on file at VTA and available upon request. As of 4Q 2018, the vast majority of construction is complete, and all that remains is completion of punch list items within previously constructed areas. All painting is complete. Photo documentation of the use of low VOC paints is on file at VTA and is available upon request. THIS MITIGATION IS COMPLETE. |
14. Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines.

The C700/SSH Contractor's fleet utilized Best Available Control Technology for emission reductions of NOx and PM in accordance with the Construction Emissions Mitigation Plan, approved 6/28/2012, and California Air Resources Board Staff Report referenced therein.

Full implementation of the C700 Construction Emissions Mitigation Plan is complete as of 3Q 2018. Independent emissions reports were received from 3Q 2013 to 3Q 2014 during mobilization of new equipment by SSH, until no new equipment was mobilized. Inspections were performed by third party Associates Environmental on a quarterly basis, see QUARTERLY VISIBLE EMISSION OBSERVATIONS REPORTS that were submitted to VTA as required by spec 01 75 00. Third party inspections are no longer performed and no new reports have been generated since no new equipment is being mobilized at the project site. All equipment emissions were compliant as indicated in the reports, which are on file at VTA and are available upon request. VTA environmental oversight included spot checks performed periodically during site inspections and punchlist work.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas. Third party inspections are no longer being performed, and all construction equipment is demobilized. THIS MITIGATION IS COMPLETE.
Preconstruction Survey for Swallows/ Migratory Bird Nesting. If construction activities are scheduled to occur during the nesting season of swallows and other migratory birds (generally March through August), a pre-construction survey for nesting activity will be conducted prior to commencement of construction. If no nesting swallows are found, then no further mitigation is warranted.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect migratory nesting birds. Thus, no additional pre-construction surveys or biological monitoring for nesting birds is required. Documentation of prior surveys completed is available upon request.

THIS MITIGATION IS COMPLETE

4Q 2018

If active nests are identified close to construction work, a biological monitor will monitor the nests when work begins. If the biological monitor, in consultation with the CDFG, determines that construction activities are disturbing adults incubating eggs or young in the nest, then no work zone buffer will be established by the biological monitor around the nest until the young have fledged and the nest is no longer active. If a biological monitor, in consultation with CDFG, determines that construction activities occurring in proximity to active cliff swallow nests are not disturbing adults or chicks in the nest, then construction activities can continue. Neests that have been determined to be inactive (with no eggs or young) can be removed with CDFG approval.

Thus, no additional pre-construction surveys or biological monitoring for nesting birds is required. Documentation of prior surveys completed is available upon request.

THIS MITIGATION IS COMPLETE

4Q 2018

Avoidance of Construction Impacts to Aquatic / Riparian Habitat. To the maximum extent practicable throughout the project site, construction activities and facilities, including piling and bridge footings, will be placed outside of aquatic/riparian habitat to avoid effects to riparian habitat and steelhead and Chinook salmon fisheries.

The SVBX Project was preceded by VTA’s Freight Railroad Relocation/Lower Berryessa Creek (FRR/LBC) Project (a CEQA only project), which included the relocation of the UPRR freight tracks (located within the future SVBX corridor) 45 feet to west. The FRR/LBC Project also included modifications to roadway crossings, drainage improvements, and culvert replacement and/or extension at Line B, Scott Creek, Cakera Creek, Berryessa Creek, and Whiptail Creek. The SVBX Project did not result in any temporary or permanent impacts to wetlands, waters of the United States, or riparian habitat at these creek locations as no additional work was required.

At Upper Penitencia Creek, the SVBX Project included replacement of the UPRR bridge with a clear span BART aerial guideway and replacement of an existing bridge over a double box culvert with a clear span bridge. In addition, the SVBX Project included regrading 1,940 linear feet of earthen channels, which eliminated 0.5 ac of wetland habitat. Approximately 0.02 ac of Upper Penitencia Creek was daylighted as a result of the double box culvert removal, which was considered a beneficial impact. The clear span bridges were preferred by regulatory agencies as they avoided or reduced the impacts to sensitive habitats including aquatic, wetland, and riparian habitat. The Berryessa Station General Plan, Sheet No. X003, Page 7, prepared by WMR Corporation, Inc. illustrates how the SVBX Project avoided aquatic, wetland, and riparian habitat to the extent practicable by free spanning the creek with the BART aerial guideway and new roadway bridge.

No additional work was required.

THIS MITIGATION IS COMPLETE

4Q 2018

100 CONTINUED
Fish Friendly Channel Design Guidelines: Installation of falsework and stream diversions required in the course of bridge construction will be consistent with VTA’s Fish-Friendly Channel Design Guidelines to minimize affects to migrating anadromous fish and other in-stream species. These guidelines address concerns related to a number of issues including high water velocities, jumps to channelized inlets or outlets, water depths, and resting pools.


The following recommendations by CDFG will be followed to address water quality affects:

- Construction within the channels that cross the alignment of the selected alternative, including installation of temporary stream diversion structures, will be restricted to the dry season, which generally extends from June 1 to October 15 depending on the species present. In some cases, construction may begin earlier than June 15 or continue past October 15, as specified in regulatory agency permits and agreements or any authorized extensions.

- No equipment will be operated in the live stream channel. No activities will occur in suitable red-legged frog or tiger salamander habitat after October 15 or the onset of the rainy season, whichever occurs first, until May 1 except for during periods greater than 72 hours without precipitation. Activities can only resume after the 72-hour period or after May 1 following a site inspection by a qualified biologist, in consultation with the U.S. Fish and Wildlife Service (FWS). The rainy season is defined [for purposes of this mitigation measure] as: a frontal system that results in depositing 0.25 inches or more of precipitation in one event.

- Appropriate erosion control measures will be installed to prevent debris, soil, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products, or other organic or earthen material from being washed into waterways by rainfall or runoff.

Full compensatory mitigation for the permanent loss of riparian and aquatic habitat for the SVBX was provided in the Upper Penitencia Creek Restoration project, as outlined separately in prior mitigation measures. The regulators concurred with all design features, including the total amount of the compensation habitat, by issuing permits for the project. VTA has these permits on file and documentation is available upon request.

Avoidance / Minimized Take of California Red-Legged Frogs and California Tiger Salamanders. The following mitigation measures will be followed to avoid or minimize take:

- A qualified biologist will conduct pre-construction surveys for red-legged frogs and tiger salamanders within the vicinity of the project site no earlier than 2 days before ground-disturbing activities. The survey area will include 300 feet upstream and downstream from the project site.

- No activities will occur in suitable red-legged frog or tiger salamander habitat after October 15 or the onset of the rainy season, whichever occurs first, until May 1 except for during periods greater than 72 hours without precipitation. Activities can only resume after the 72-hour period or after May 1 following a site inspection by a qualified biologist, in consultation with the U.S. Fish and Wildlife Service (FWS). The rainy season is defined [for purposes of this mitigation measure] as: a frontal system that results in depositing 0.25 inches or more of precipitation in one event.

- Construction activity within 200 feet of top of bank of Upper Penitencia Creek and Coyote Creek is restricted to the period between June 1 and October 15. Work in and adjacent within 200' of top of bank) to Upper Penitencia Creek will be limited to the period between June 1 and October 15 when natural hydrology of the region creates seasonally dry conditions at the project site. Spill prevention and countermeasure plans shall also be implemented.

Demolition and clearing and grubbing activities eliminated all CRLF habitat from within the project area of the UPC corridor during the time of construction (i.e. after the channel diversion until after the creek was reconstructed). VTA has documented verification on file, including extensive project photographs of the work from periodic environmental inspections showing that the UPC Project removed all such habitat within the project limits with the objective of restoring and enhancing the habitat for the California Red-Legged Frogs and the California Tiger Salamanders. This photo-documentation is on file and is available upon request.

C Contractor

COMPLETE
- Vehicles to and from the project site will be confined to existing roadways and defined access routes to minimize disturbance of red-legged frog or tiger salamander habitat.

- If a red-legged frog or tiger salamander is encountered during excavations, or any project activities, activities will cease until the frog or salamander is removed and relocated by a FWS-permitted biologist. Exclusionary fencing will be installed to prevent red-legged frogs or tiger salamanders from re-entering the work area. Any incidental take will be reported to the FWS immediately by telephone.

- If suitable red-legged frog or tiger salamander habitat is disturbed or removed, VTA will restore the suitable habitat back to its original value by covering bare areas with mulch and re-vegetating all cleared areas with plant species that are currently found in the project site or as negotiated with FWS.

- Any permanent loss of aquatic habitat in Upper Penitencia Creek or Lower Silver Creek will be compensated through protection or enhancement of degraded aquatic and riparian habitat at either an onsite or offsite location. The location and total amount of the compensation habitat will be determined in consultation with FWS.

### VTA for Preconstruction survey, Contractor for all other measures

#### COMPLETE

---

### Biological resources - Western pond turtles

#### Preconstruction Survey for Western Pond Turtles

- A qualified biologist will conduct a pre-construction survey for western pond turtles in all suitable aquatic habitats. The survey area will include 300 feet upstream and downstream from the project site. This survey will be conducted no more than 24 hours prior to the onset of in-water construction activities. If individual pond turtles are located, they will be captured by a qualified biologist and relocated to the nearest suitable habitat upstream or downstream of the project site. If individuals are relocated, then the contractor will install barrier fencing along each side of the work area to prevent individual turtles from re-entering the work area. In the event barrier fencing is installed, the qualified biologist will conduct relocation surveys for three consecutive days to ensure that all animals are removed from the disturbance area.

#### VTA for preconstruction survey and turtle relocation, Contractor for fencing

#### COMPLETE

---

### Biological resources – general

#### Construction phase mitigation measures will be included in a Mitigation Monitoring and Reporting Program that will be incorporated in the project’s plans and specifications. Furthermore, USFWS, National Oceanic and Atmospheric Administration (NOAA) Fisheries, ACOE, and CDFG will be consulted regarding potential impacts and appropriate construction-phase mitigation measures.

#### VTA

#### COMPLETE

---

### Biological resources - Water education

#### Construction workers will be educated regarding the sensitive plant and wildlife species in the project vicinity, including methods to avoid or minimize impacts to biological resources.

#### Contractor

The Worker Environmental Awareness Training has been conducted throughout the duration of construction for both the SVBX Project and UPC Improvement Project for new construction workers.

As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, and it is not anticipated that any of the punch list items would require new workers who have not already been trained or that the punch list item activity would affect sensitive plant and wildlife species. Thus, no additional worker education sessions are required.

Documentation of prior Worker education awareness Trainings completed is on file at VTA and is available upon request.

#### THIS MITIGATION IS COMPLETE
| MMRP107 | Biological resources - Special status plant species | SEIR-2 | CNDT-BIO-5-1 | CNDT-BIO-12 | CNDT-BIO-13 | Avoidance of Congdon's Tarplant. VTA will design all facilities to avoid temporary and permanent affects to Congdon's tarplant to the maximum extent practicable. Pre-construction surveys for Congdon's tarplant will be conducted during the June to November flowering periods. Any identified areas will be marked as ESAs and protected with orange fencing until after seed-set to prevent accidental intrusion by construction workers/equipment. Coordination of specific compensatory mitigation measures will be carried out with CDFG to address any unavoidable impacts. If avoidance is not feasible, a focused botanical survey will be conducted by a qualified plant biologist to ascertain the presence or absence of the species in the vicinity of selected alternative during the initial blooming period (August) that occurs prior to the construction. VTA will mitigate the permanent loss of Congdon’s tarplants at a minimum ratio of 1:1 (replacement plants: lost plants), or at a ratio determined in consultation with resource agency personnel. VTA will also mitigate in accordance with the California Native Plant Society’s recommended measures for mitigating adverse affects to Congdon’s tarplant, as follows:  
- To replace plants, seeds from plants within the affected area will be collected and stored during the month of August or September prior to construction beginning. As the blooming period lasts until November, the affect of pruning flowering heads to obtain seed will allow the plant to repeat flower and seed production before the end of the blooming period and thereby avoid or lessen a temporal loss before project work and revegetation occurs. Refer to MMRP4 (B-1d) and MMRP5 (B-1e) for monitoring and MMRP6 (B-1f) for mowing.  
D VTA COMPLETE 3Q 2011 |
| MMRP107 | Biological resources - Special status plant species | SEIR-2 | CNDT-BIO-14 | CNDT-BIO-16 | CNDT-BIO-17 | - The seed will be applied as a component of the revegetation mix within the affected area for any temporary effects and within a proposed replacement area for permanent effects. The replacement area will be determined in consultation with resource agency personnel. Revegetation should be accomplished by hydro seeding prior to the start of the rainy season in areas.  
- The success of the reseeding will be monitored during the blooming period in the year following revegetation. The criteria for reseeding success will be that the species is found to be occurring throughout the revegetated areas. If unsuccessful, seed will be collected and sown in the unsuccessful areas prior to the rainy season that year.  
- The success of the reseeding will also be monitored during the blooming period in the second year following revegetation. If seeding of previously unoccupied habitat is successful, mitigation will be deemed successful and no additional monitoring will be required. If unsuccessful, the area will be deemed as unsuitable habitat due to an apparent subtle difference in soil characteristics. In this case, revegetation of additional areas, determined in consultation with resource agency personnel, and an additional two years of monitoring will be conducted.  
- If mowing of any revegetation area is proposed, it should be conducted prior to May 15 in order to allow sufficient time for flowering and seed set. Mowing should not be lower than six inches in order to minimize removal of plant foliage prior to flowering. Refer to MMRP4 (B-1d) and MMRP5 (B-1e) for monitoring and MMRP6 (B-1f) for mowing.  
COMPLETE 3Q 2011 |
| MMRP108 | Biological resources - Special status plant species | SEIR-2 | CNDT-BIO-14 | CNDT-BIO-16 | - Pre-construction surveys will be conducted for alkali milkvetch and diamond-petaled California Poppy during their bloom period (March to June and March to April, respectively). If any plants are found, they will be marked as ESAs and protected byorange fencing. Compensatory measures will be coordinated with CDFG to address any unavoidable impacts.  
C VTA COMPLETE 4Q 2012 |
| MMRP109 | Biological resources - riparian and/or wetland habitat | SEIR-2 | CNDT-BIO-10 | CNDT-BIO-12 | - A riparian corridor buffer zone will be provided along the banks of creeks.  
D Contractor COMPLETE 3Q 2011 |
| MRRP110 | Biological resources - wetlands and waters of the U.S. | SEIR-2 | CNST-BIO-16 | For impacts to wetlands and waters of the U.S., VTA will comply with the U.S. Army Corps of Engineers Section 404 nationwide permit conditions including pre-construction notification, compensatory mitigation, and restoration plans. | C Contractor | Permits from U.S. Army Corp of Engineers under Section 404 all SVBX project work including UPC Coyote creek outfall, the wingwalls at Berryessa Creek and the Wrigley Creek outfall are on file at VTA and are available for review upon request. Updates on the permits and on the field as it progressed work were provided to FTA quarterly, concurrent with the work being completed. As of 3Q 2016, all creek work in jurisdictional areas was complete. Only punch list items remain as of 6Q 2016, which will not affect jurisdictional areas. | 3Q 2016 |
| MRRP111 | Biological resources - In-channel construction | SEIR-2 | CNST-BIO-17 | Construction within the channels that cross the Project alignment, including installation of temporary stream diversion structures, will be restricted to the dry season, which generally extends from June 1 to October 15 depending on the species present. In some cases, construction may begin earlier than June 15 or continue past October 15, as specified in regulatory agency permits and agreements or any authorized extensions. | C Contractor | All work requiring stream diversion is complete. The CS40 Contractor finished the wingwalls and pulled their Berryessa Creek cofferdam in June 2016. THIS MITIGATION IS COMPLETE | 2Q 2018 |
| MRRP112 | Biological resources - California red-legged frog | SEIR-2 | CNST-BIO-18 | Pre-construction surveys will be conducted for California red-legged frogs prior to any construction activities occurring at Guadalupe River, Coyote Creek, Upper Penitencia Creek, and Lower Silver Creek. | C VTA COMPLETE | | 4Q 2017 |
| MRRP113 | Biological resources - California red-legged frog | SEIR-2 | CNST-BIO-19 | A USFWS-permitted biologist will relocate California red-legged frogs encountered in the work area and exclusionary fencing will be installed to prevent California red-legged frogs from re-entering the work area. | C VTA for preconstruction survey and turtle relocation, Contractor for fencing COMPLETE | | 4Q 2017 |
| MRRP114 | Biological resources - southwestern pond turtle | SEIR-2 | CNST-BIO-20 | Pre-construction surveys will be conducted for southwestern pond turtles prior to any construction activities occurring at Guadalupe River, Coyote Creek, Upper Penitencia Creek, and Lower Silver Creek. | C VTA COMPLETE | | 2Q 2011 |
| MRRP115 | Biological resources - southwestern pond turtle | SEIR-2 | CNST-BIO-21 | A qualified biologist will relocate southwestern pond turtles encountered from the work area and exclusionary fencing will be installed to prevent southwestern pond turtles from re-entering the work area. | C VTA for preconstruction survey and turtle relocation COMPLETE | | 2Q 2011 |
| MRRP116 | Biological Resources - Burrowing Owls | SEIR-2 | CNST-BIO-22 | A preconstruction survey of suitable habitat within 250 feet of construction areas (access permitting) will be conducted per California Department of Fish and Game (CDFG) guidelines by a qualified biologist within 30 days prior to construction to determine the presence of burrowing owls. If construction is delayed or suspended for more than 30 days after the preconstruction survey, the site will be resurveyed. If no burrowing owls are found, then no further mitigation is warranted. If burrowing owls are found, additional mitigation will be implemented, as described in mitigation measures CNST-BIO-23 through CNST-BIO-25. | C VTA COMPLETE | | 3Q 2012 |
| MRRP117 | Biological Resources - Burrowing Owls | SEIR-2 | CNST-BIO-23 | Avoidance of Burrowing Owl Burrows. If burrowing owls are determined to be present, avoidance of occupied burrows is the preferred method of addressing potential adverse effects/impacts. Avoidance measures include establishment of a “no disturbance” construction-free buffer zone within 50 meters (approximately 165 feet) of occupied burrows during the nonbreeding season (September 1 through January 31) or within 75 meters (approximately 250 feet) during the breeding season (February 1 through August 31). | C Contractor COMPLETE | | 3Q 2012 |
| MRRP118 | Biological Resources - Burrowing Owls | SEIR-2 | CNST-BIO-24 | Burrowing Owl Relocation. If avoidance is not feasible, a qualified biologist, in consultation with CDFG, will use passive relocation techniques (e.g., installing one-way doors at burrow entrances) to displace burrowing owls from the construction area to avoid the loss of any individual due to construction. At least one week is required to accomplish passive relocation and allow owls to acclimate to alternate burrows. Passive relocation is only authorized during the nonbreeding season. | C VTA COMPLETE | | 3Q 2012 |
| MMRP119 Biological Resources - Burrowing Owls | FEIS, CNST-4, BIO-4 | Burrowing owl habitat conservation. If destruction of occupied burrows is unavoidable, the loss of foraging, nesting, and roosting habitat will be mitigated through habitat preservation at a ratio of 6.5 acres of foraging habitat permanently preserved for each pair or unpaired resident bird displaced due to the Project. Such mitigation will be provided via preservation of the appropriate acreage of occupied burrowing owl habitat with a conservation easement at the purchase of credits in a CDFG-approved conservation bank. | C | VTA | COMPLETE | 3Q 2012 |
| MMRP125 Biological Resources - Nesting Raptors | FEIS, CNST-5, BIO-5 | Avoidance of Nesting Season. To the extent feasible, construction activities, including tree and shrub removal, will be scheduled between September and December to avoid the nesting season for most raptors, as well as other bird species. | C | Contractor | As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect migratory nesting birds. Thus, no additional pre-construction surveys for nesting swallows are required from this point forward. | 4Q 2018 |
| MMRP124 Biological Resources - Nesting Raptors | FEIS, CNST-6, BIO-6 | Pre-construction survey for nesting raptors. Pre-construction surveys for nesting raptors will be conducted by a qualified ornithologist during the nesting season (January through August) to ensure that no raptor nests will be disturbed during construction. The surveys will be conducted no more than 14 days prior to the initiation of construction activities during the early part of the nesting season (January through April) and no more than 30 days prior to the initiation of these activities during the late part of the nesting season (May through August). During this survey, the ornithologist will inspect all trees and electrical towers in, and immediately adjacent to, the affected area for raptor nests. If no raptor nests are found, no further mitigation is warranted. | C | VTA | COMPLETE | 3Q 2012 |
| MMRP123 Biological Resources - Nesting Swallows | SEIR-2, CNST-7, BIO-7 | Pre-construction surveys will be conducted for nesting swallows under bridge structures and riparian habitat located within the project area during the nesting season (generally March through August). | C | VTA for buffer establishment, Contractor for fencing and avoiding area | As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect migratory nesting birds. Thus, no additional pre-construction surveys for nesting swallows are required from this point forward. | 4Q 2018 |
| MMRP122 Biological Resources - Nesting Swallows | SEIR-2, CNST-8, BIO-8 | Raptor nest buffer zone. If an active raptor nest is found close enough to the construction area to be disturbed by these activities, the ornithologist, in consultation with CDFG, will determine the extent of a construction-free buffer zone, typically 250 feet, to be established around the nest until the chicks have fledged. | C | Contractor | As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect migratory nesting birds. Thus, no additional pre-construction surveys for nesting swallows are required from this point forward. | 4Q 2018 |
| MMRP121 Biological Resources - Nesting Swallows | SEIR-2, CNST-9, BIO-9 | Vegetation and structures that could support nests or roosts of species such as migratory songbirds and non-game mammals, such as bats, will be surveyed prior to the onset of construction activities. A combination of avoidance, installation of exclusion devices, and monitoring will be implemented to assure protection of migratory birds and non-game mammals. | C | VTA | COMPLETE | 4Q 2018 |
| MMRP120 Biological Resources - Nesting Swallows | SEIR-2, CNST-10, BIO-10 | Construction activities will be delayed when specified distances from occupied swallow nests if it is determined that construction would disrupt nesting behavior and until swallow nests are no longer nesting or the fledglings are self-sufficient. | C | Contractor | As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not affect migratory nesting birds. Thus, no additional pre-construction surveys for nesting swallows are required from this point forward. | 4Q 2018 |
| MMRP119 Biological Resources - Nesting Swallows | SEIR-2, CNST-11, BIO-11 | Construction: Greenhouse Gas Emissions | | | | |
VTA shall ensure that construction waste and demolition materials are recycled and that 50 percent of the construction waste is diverted from landfill, in accordance with the BAAQMD recommended guidance for reducing GHG emissions during construction.

C Contractor's Construction Waste Management Plan (TS 01 74 21) and Sustainability Plan (TS 01 35 74) are being implemented, and include this recycling requirement.

Waste management is ongoing through 2Q 2018 with separate waste bins available for metal, concrete, and drywall. The C700 project substantial completion was achieved on June 30, 2018. Reports submitted indicate full compliance with the requirement that construction waste and demolition materials are recycled and that 50 percent of the construction waste is diverted from landfills to the maximum extent practicable. Documentation is available on request.

This mitigation measure will remain open until project acceptance, which indicates that all waste management tracking submittals are complete.
### Hazardous Materials

**MRMP128** Hazardous Waste  
**Implementation of Contaminant Management Plan.** The project-wide Contaminant Management Plan dated and approved by the RWQCB on October 21, 2008 and mitigation measures included in the Plan will be implemented during construction. The mitigation measures detail requirements for the management of soil and railroad ballast, groundwater as part of dewatering activities, and building materials. The Plan is included in Appendix I in the EIS. Effects would not be substantial with the three mitigation measures incorporated. VTA shall ensure that mitigation measures identified in the Contaminant Management Plan are implemented during the construction of Phase 1.

**C Contractor**  
Inspector’s daily diaries from 2016-2018 from Field Engineer Dan Pomeli document oversight of the C700 contract hazardous materials management activities. These contract documents illustrate the verification of proper contaminated materials management on the SVBX program (for all contracts). The Remediation Completion Report for the C700 Contract, dated May 4, 2018 (document number P0728-C700-RPT-001653), documents the full implementation of this mitigation measure as of 2Q 2018.

**2Q 2018**

### Site Management Plan

**MRMP129** Hazardous Waste  
**Implementation of Site Management Plan for Former Ford Automobile Assembly Plant.** In addition to implementation of the project-wide Contaminant Management Plan, the VTA shall ensure that mitigation measures included/identified in the “Site Management Plan – Former Ford Automobile Assembly Plant Formerly 1100 South Main Street, Milpitas, California” (March 1997) and the RWQCB’s letter dated April 16, 2001 for this property will be implemented during construction of Phase 1 at the Great Mall. These documents include measures for: review of historic environmental data and further investigation, if necessary; performance of a human health risk assessment; development of a project-specific site management plan and health and safety plan; and requirements for notification and disclosure, construction safety, soil management, and use of shallow groundwater. These documents are included in Appendix I in the EIS.

**C Contractor COMPLETE 3Q 2014**

### Health and Safety Plan

**MRMP130** Hazardous Waste  
**Health and Safety Plan.** To protect the health and safety of construction workers, the public, and the environment, and to ensure the proper management of hazardous materials, a Health and Safety Plan that meets Occupational Safety and Health Administration requirements will be prepared, CERCLA certified, and implemented during construction of Phase 1.

**C Contractor COMPLETE 3Q 2012**

### Noise/Vibration

**MRMP131** Construction Noise/Vibration  
**A comprehensive construction noise and vibration specification will be incorporated into all construction bid documents. The existence and importance of noise and vibration control specifications will be emphasized at pre-bid and pre-construction conferences.**

**D VTA COMPLETE 1Q 2012**

**MRMP132** Noise and Vibration – public notification program  
**A public notification program will be implemented by VTA to alert residents and institutions in advance of particular disruptive construction activities. A complaint resolution procedure will also be put in place by VTA to rapidly address any noise and vibration problems that may develop during construction.**

**C VTA**  
As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously constructed areas, which will not substantially affect residents. Outreach regarding revenue service noise and vibration complaints is addressed separately from this mitigation measure, which relates to construction activities. Documentation of prior outreach activities is available upon request.

**4Q 2018**

**MRMP133** Construction Noise/Vibration  
**Stationary equipment, such as generators and compressors, will be located as far as feasible from noise and vibration sensitive sites, and be acoustically treated. Grout batch plants, and grout silos, mixers, and pumps, and diesel pumping equipment will also be located as far as feasible from noise sensitive sites, and be acoustically treated if necessary.**

**C Contractor **  
As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not exceed noise and vibration thresholds.

**4Q 2018**
<table>
<thead>
<tr>
<th>MMRP134</th>
<th>Construction Noise/Vibration</th>
<th>FES SEIR-2 CNST- NV-2 CNST- NOISE-4 P-MND</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Temporary noise barriers or noise control curtains will be constructed in areas between noisy activities and noise-sensitive receptors, where practical and effective. Temporary noise barriers can reduce construction noise by 5 to 15 dB, depending on the height of the barrier and the placement of the barrier. To be most effective, the barrier will be placed as close as possible to the noise source or the sensitive receptor. Temporary barriers tend to be particularly effective because they can be easily moved as work progresses to optimize performance. If temporary noise barriers and site layout do not result in compliance with the noise limit, retrofitting existing windows and doors with new acoustically rated units may be considered for the residential structures. SEE FEIS TABLE 6-7 FOR LOCATIONS OF TEMPORARY NOISE BARRIERS/NOISE CONTROL CURTAINS AND RESTRICTED WORK HOURS.</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMRP135</th>
<th>Construction Noise/Vibration</th>
<th>FES SEIR-2 P-MND CNST- NV-4 CNST- NOISE-5 N-1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>When feasible, the following equipment will be used: electric powered equipment instead of diesel-powered equipment, hydraulic tools instead of pneumatic impact tools, and electric driven saws instead of air- or gasoline driven saws.</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMRP136</th>
<th>Construction Noise/Vibration</th>
<th>FES SEIR-2 CNST- NV-5 CNST- NOISE-6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A resonant-free vibratory pile driver or augering-drill rig will be used for setting piles in lieu of impact pile drivers where feasible.</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMRP137</th>
<th>Construction Noise/Vibration</th>
<th>FES SEIR-2 CNST- NV-14 CNST- NOISE-7 N-1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local jurisdiction construction time periods will be adhered to, to the extent feasible, recognizing that nighttime and weekend construction may be necessary and/or preferred by VTA and local jurisdictions to reduce other related environmental effects such as traffic. Note that local jurisdictions typically prohibit construction operations between the hours of 7:00 PM and 7:00 AM. VTA will work with the local jurisdictions and the affected property owners to determine if the daytime working hours may be extended until 9:00 or 10:00 pm without severely affecting the nearby residents.</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMRP138</th>
<th>Noise – nighttime construction</th>
<th>SEIR-2 CNST- NOISE-8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Operate equipment so as to minimize banging, clattering, buzzing, and other annoying types of noises, especially near residential areas during the nighttime hours.</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMRP139</th>
<th>Construction Noise/Vibration</th>
<th>FES SEIR-2 CNST- NV-6 CNST- NOISE-5 N-1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Turn off idling equipment, whenever possible.</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MMRP140</th>
<th>Construction Noise/Vibration</th>
<th>FES SEIR-2 CNST- NV-7 CNST- NOISE-10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Line or cover hoppers, conveyor transfer points, storage bins, and chutes with sound-deadening material.</td>
<td>Contractor</td>
</tr>
<tr>
<td>MMRP141</td>
<td>Construction</td>
<td>Noise/Vibration</td>
</tr>
<tr>
<td>MMRP142</td>
<td>Construction</td>
<td>Noise/Vibration</td>
</tr>
<tr>
<td>MMRP143</td>
<td>Construction</td>
<td>Noise/Vibration</td>
</tr>
<tr>
<td>MMRP144</td>
<td>Construction</td>
<td>Noise/Vibration</td>
</tr>
<tr>
<td>MMRP145</td>
<td>Construction</td>
<td>Noise/Vibration</td>
</tr>
<tr>
<td>MMRP146</td>
<td>Construction</td>
<td>Noise/Vibration</td>
</tr>
<tr>
<td>MMRP147</td>
<td>Construction</td>
<td>Noise/Vibration</td>
</tr>
<tr>
<td>MMRP149</td>
<td>Construction Noise/Vibration</td>
<td>FES</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>MMRP150</td>
<td>Construction Noise/Vibration</td>
<td>FES</td>
</tr>
<tr>
<td>MMRP151</td>
<td>Construction Noise/Vibration</td>
<td>FES</td>
</tr>
<tr>
<td>MMRP152</td>
<td>Construction Noise/Vibration</td>
<td>FES</td>
</tr>
<tr>
<td>MMRP153</td>
<td>Construction Noise/Vibration</td>
<td>FES</td>
</tr>
</tbody>
</table>
### Construction Noise/Vibration

**Project Description**

Major equipment to be used at the surface of the construction site for a total duration greater than five days will be pre-certified by the Acoustical Engineer during field measurements at a test site or guaranteed by the equipment vendor to meet the noise limits developed for construction equipment as shown below.

#### Noise Emission Limits for Construction Equipment

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Typical Lmax Sound Level at 50 ft dBA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavators</td>
<td>82</td>
</tr>
<tr>
<td>Dump trucks</td>
<td>81</td>
</tr>
<tr>
<td>Front end loaders</td>
<td>82</td>
</tr>
<tr>
<td>Dozers</td>
<td>82</td>
</tr>
<tr>
<td>Concrete trucks</td>
<td>77</td>
</tr>
<tr>
<td>Graders</td>
<td>81</td>
</tr>
<tr>
<td>Cranes</td>
<td>79</td>
</tr>
<tr>
<td>Backhoes</td>
<td>75</td>
</tr>
<tr>
<td>Compactors</td>
<td>77</td>
</tr>
<tr>
<td>Concrete pumping trucks</td>
<td>77</td>
</tr>
<tr>
<td>Tamper/Aligner</td>
<td>81</td>
</tr>
<tr>
<td>Water trucks</td>
<td>77</td>
</tr>
<tr>
<td>Large and small diameter auger drill-rigs</td>
<td>81</td>
</tr>
<tr>
<td>Diesel generators</td>
<td>69a</td>
</tr>
<tr>
<td>Flat-bed semi-trucks</td>
<td>81</td>
</tr>
<tr>
<td>Compressed-air construction tools</td>
<td>81</td>
</tr>
<tr>
<td>Air compressors</td>
<td>70a</td>
</tr>
<tr>
<td>Welding equipment</td>
<td>73</td>
</tr>
</tbody>
</table>

* a – Assumed acoustically treated

**Mitigation Details**

- **4Q 2018**
  - SSH implemented and updated the Noise Control and Monitoring Plan as necessary, and the plan includes the Acoustical Engineer and/or manufacturer’s certification of equipment to be used on the project. The Noise Control Plan, plan revisions, and monitoring reports prepared by the Contractor are on file at VTA and available for review upon request. Equipment was observed by periodic inspection by the VTA environmental monitor.

- **4Q 2018**
  - All equipment was demobilized from the site during 4Q 2018. As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not exceed noise and vibration thresholds.

**This Mitigation is Complete**

### Vibration - Piling

**Project Description**

Impact pile driving will be avoided near vibration-sensitive areas where possible. Drilled piles, or the use of a sonic or vibratory pile driver, or other “quiet piling” techniques are quieter alternatives and may be used where geological conditions permit.

**Mitigation Details**

- **2Q 2016**
  - SSH implemented and updated the Noise Control and Monitoring Plan as necessary, and the plan includes the Acoustical Engineer and/or manufacturer’s certification of equipment to be used on the project. The Noise Control Plan, plan revisions, and monitoring reports prepared by the Contractor are on file at VTA and available for review upon request. Equipment was observed by periodic inspection by the VTA environmental monitor.

- **2Q 2016**
  - All equipment was demobilized from the site during 4Q 2018. As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not exceed noise and vibration thresholds.

**This Mitigation is Complete**

### Construction Noise/Vibration

**Project Description**

The contractor is required to initially perform vibration monitoring at the nearest residence or commercial structure within 100 feet of pile driving operation. If the measured vibration data during the first two days is in compliance with the vibration limits, vibration monitoring may be discontinued at the site, assuming that piling operation occurs close to the nearest receptor. Vibration measurements will be measured in the vertical direction on ground surface or building floor and measured during a pile driving operation.

**Mitigation Details**

- **2Q 2016**
  - SSH implemented and updated the Noise Control and Monitoring Plan as necessary, and the plan includes the Acoustical Engineer and/or manufacturer’s certification of equipment to be used on the project. The Noise Control Plan, plan revisions, and monitoring reports prepared by the Contractor are on file at VTA and available for review upon request. Equipment was observed by periodic inspection by the VTA environmental monitor.

- **2Q 2016**
  - All equipment was demobilized from the site during 4Q 2018. As of 4Q 2018, the vast majority of construction is complete. The remaining work is completion of punch list items within previously disturbed areas, which will not exceed noise and vibration thresholds.

**This Mitigation is Complete**
### Transportation and Transit

#### 1. All Transportation and Transit mitigation measures from the FEIR have been replaced with mitigation measures in the SEIR.

<table>
<thead>
<tr>
<th>MMRP158</th>
<th>Visual quality and aesthetics</th>
<th>SEIR-2</th>
<th>CNST-VE-1</th>
<th>Visual screening will be erected at construction sites, as appropriate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor</td>
<td>THIS MITIGATION IS COMPLETE.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

In 4Q 2018, the C640 contract completed construction of the west bound turn lane and center median for the Montague Expressway/South Milpitas Boulevard Extension.

The mitigation measure will remain open until all punchlist items are completed and the work is accepted by the City, anticipated in early 2019.

---

**MMRP159 Milpitas Station - Traffic**

**FEIS & SEIR-2 TR-1**

- Great Mall Parkway and Montague Expressway - There are no other cost effective feasible improvements that can be made at this intersection beyond those identified under the 2030 No Build conditions. The necessary improvement to mitigate the Project’s adverse effect at this intersection would require grade separation of the intersection. It should be noted that the grade separation of this intersection is included in the Valley Transportation Plan 2030 (VTP 2030) project list. However, this improvement was not included as part of the year 2030 roadway network since it was not included in the VTA 2030 (SVRTC) traffic model used for this analysis. Thus, as a conservative approach and in order to analyze the worst case scenario, this improvement was not considered to be implemented by the year 2030. Although the Project would adversely affect this intersection, grade separation of this intersection was identified as the needed improvement under 2030 No Build conditions. Therefore, since the Project would contribute to the need for grade separation of the Great Mall/Montague intersection, the Project will contribute a ‘fair share’ amount toward the implementation of this improvement.

Based on the revised 2013 Traffic Impact Analysis, the Project no longer adversely impacts this intersection; therefore, no mitigation is warranted.

**MITIGATION N/A**

---

**MMRP160 Milpitas Station - Traffic**

**FEIS & SEIR-2 TR-2**

- Milpitas Boulevard and Montague Expressway - Possible improvements include a second westbound left-turn lane. Though intersection operations would slightly improve the Project’s adverse effect to this intersection would not be mitigated. Due to the relatively high projected volumes, there are no feasible at-grade improvements to mitigate adverse effects at this intersection. Because the Project would contribute to traffic congestion at this intersection, the Project will contribute a ‘fair share’ amount toward the implementation of this traffic improvement. Should a feasible improvement be determined, a ‘fair share’ contribution will be evaluated at that time.

In 4Q 2018, the C640 contract completed construction of the west-bound turn lane and center median for the Montague Expressway/South Milpitas Boulevard Extension.

The mitigation measure will remain open until all punchlist items are completed and the work is accepted by the City, anticipated in early 2019.
The necessary improvement to mitigate the Project’s adverse affect to this intersection consists of the addition of a second northbound left-turn lane. The implementation of this improvement would improve intersection level of service to an acceptable Level of Service (LOS) D during the AM peak hour. It should be noted that changes to the signal timing at this location to accommodate future traffic volumes may improve intersection levels of operation without physical improvements. Since Phase 1 would contribute to the need for improvements at this intersection, Phase 1 would contribute a “fair share” amount toward the implementation of the traffic improvement.

Based on the revised 2013 Traffic Impact Analysis, the project no longer adversely impacts this intersection; therefore, no mitigation is warranted.

MITIGATION N/A

D VTA COMPLETE

4Q 2015
Lundy Avenue and Berryessa Road: There are no cost-effective feasible improvements that can be made beyond those described for 2030 No Build conditions to mitigate Project’s adverse effects. The necessary improvement to mitigate the adverse effect at this intersection to an acceptable level consists of the addition of a fourth westbound through lane on Berryessa Road. This improvement is not feasible due to ROW constraints. Because the Project would contribute to traffic congestion at this intersection, it will contribute a ‘fair share’ amount toward the implementation of this traffic improvement. Should a feasible improvement be determined, a ‘fair share’ contribution will be evaluated at that time.

King Road and Mabury Road: The necessary improvement to mitigate the Project’s adverse effect at this intersection to an acceptable level consists of the addition of a second westbound left-turn lane. The implementation of this improvement would improve intersection level of service to an acceptable LOS D.

D VTA COMPLETE 4Q 2013

D VTA COMPLETE 4Q 2013
### King Road and McKee Road

There are no cost effective feasible improvements that can be made beyond those described for 2030 No Build conditions to mitigate adverse effects from the Project. The necessary improvement to mitigate the Project's adverse effect at this intersection to an acceptable level consists of the addition of a third westbound through lane. However, this improvement would require the widening of McKee Road, which is not feasible due to Right of Way (ROW) constraints. Because the Project would contribute to traffic congestion at this intersection, it will contribute a 'fair share' amount toward the implementation of this traffic improvement. Should a feasible improvement be determined, a 'fair share' contribution will be evaluated at that time.

**VTA**

Based on the revised 2013 Traffic Impact Analysis, the project no longer adversely impacts this intersection; therefore, no mitigation is warranted.

**MITIGATION** N/A

---

### Capitol Avenue and McKee Road

There are no cost effective feasible improvements that can be made beyond those described for 2030 No Build conditions to mitigate the Project's adverse effects. With the newly constructed Capitol Light Rail Transit (LRT) line, Capitol Avenue has been upgraded to its extent to allow for the operation of the LRT in its median. Further improvement of the intersection would not be compatible with LRT operations. VTA will comply with the Protected Intersection Policy as required including providing fair-share funding (amount to be negotiated) towards the construction of identified offsetting improvements.

**VTA**

Based on the revised 2013 Traffic Impact Analysis, the project no longer adversely impacts this intersection; therefore, no mitigation is warranted.

**MITIGATION** N/A

---

### McLaughlin Avenue and Story Road

Possible improvements include the addition of a second northbound left-turn lane. Though adverse effects would be mitigated and intersection level of service would improve with this improvement, the level of service would remain an unacceptable LOS E during the PM peak hour. The necessary improvement to improve intersection level of service to an acceptable level consists of the addition of a third southbound left-turn lane and widening of Story Road from six to eight through lanes. This improvement would require the widening of both McLaughlin Avenue and Story Road, which is infeasible due to ROW constraints.

**VTA**

Based on the revised 2013 Traffic Impact Analysis, the project no longer adversely impacts this intersection; therefore, no mitigation is warranted.

**MITIGATION** N/A

---

### King Road and Story Road

There are no cost effective feasible improvements that can be made beyond those described for 2030 No Build conditions to mitigate the Project's adverse effects. The necessary improvement to mitigate the Project's effect at this intersection to an acceptable level consists of the widening of King Road from four to six through lanes. The widening of King Road is not feasible due to ROW constraints. Because the Project would contribute to traffic congestion at this intersection, it will contribute a 'fair share' amount toward the implementation of this traffic improvement. Should a feasible improvement be determined, a 'fair share' contribution will be evaluated at that time.

**VTA**

Based on the revised 2013 Traffic Impact Analysis, the project no longer adversely impacts this intersection; therefore, no mitigation is warranted.

**MITIGATION** N/A
There are no cost effective feasible improvements that can be made beyond those described for 2030 No Build conditions to mitigate the Project's adverse effects. With the newly constructed Capitol LRT line, Capitol Avenue has been upgraded to its extent to allow for the operation of the LRT in its median. Further improvement of the intersection would not be compatible with LRT operations. VTA proposes that the intersection be added to the city's list of Protected Intersections and adhere to the Protected Intersection Policy. The LOS policy specifies that Protected Intersections consist of locations that have been built to their planned maximum capacity and where expansion of the intersection would have an adverse effect upon other transportation facilities (such as pedestrian, bicycle, and transit systems). If a project has significant traffic impacts at a designated Protected Intersection, the project should provide offsetting Transportation System Improvements that enhance pedestrian, bicycle and transit facilities to the community near the Protected Intersection. VTA will comply with the Protected Intersection Policy as required including providing fair-share funding (amount to be negotiated) towards the construction of identified offsetting improvements.

Based on the revised 2013 Traffic Impact Analysis, the project no longer adversely impacts this intersection; therefore, no mitigation is warranted. MITIGATION N/A
<table>
<thead>
<tr>
<th>MMRPT123</th>
<th>Groundborne noise along the tunnel alignment</th>
<th>SEIR-1</th>
<th>INV-8</th>
<th>For residences and other sensitive uses impacted by groundborne noise along the tunnel alignment, mitigation includes approximately 5,500 linear feet of highly resilient direct fixation rail fasteners and 10,500 linear feet of rail suspension fasteners (RSF) to reduce groundborne noise impacts to meet FTA criteria.</th>
<th>N/A for SVBX, Applies to BSV / Tunnel.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMRPT144</td>
<td>Noise – noise measurements</td>
<td>SEIR-1</td>
<td>C-59</td>
<td>The contractor will perform pre-construction ambient noise measurements at the construction staging areas that include the east and west tunnel portal locations (Mabury Road and US 101 CSA and I-880 CSA, respectively), at the station and vent shaft areas, and at the gap breaker station sites. This will serve to document the noise environment just prior to start of construction. These measurements will be performed over a minimum of ten days, except at the gap breaker sites, where measurements will be conducted for four days.</td>
<td>N/A for SVBX, Applies to BSV / Tunnel.</td>
</tr>
</tbody>
</table>

Note: Responsibility assignments are preliminary based on the C700 contract and are to be customized for each contract.