

**REDESIGN OF REACHES A AND B  
OF THE LOWER CALERA CREEK ELEMENT**

**FIRST ADDENDUM TO THE  
LOWER BERRYESSA CREEK PROGRAM  
FINAL ENVIRONMENTAL IMPACT REPORT  
SCH# 2007092084**

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## 1. BACKGROUND AND NEED

The Lower Berryessa Creek Program consists of the following six program elements:

- Lower Berryessa Creek,
- Lower Calera Creek
- Upper Calera Creek 1
- Upper Calera Creek 2,
- Tularcitos Creek, and
- Lower Penitencia Creek.

The Santa Clara Valley Water District (SCVWD) prepared an Environmental Impact Report (EIR) analyzing potential environmental effects of implementing the Lower Berryessa Creek Program (SCVWD, 2011A). In December 2011 the SCVWD Board of Directors certified the Berryessa Creek Program EIR and approved implementation of the program (SCVWD, 2011B). The Notice of determination for the EIR was filed with the Santa Clara County Clerk-recorder's Office and the State Clearinghouse on December 16, 2011.

Lower Calera Creek is a tributary to Lower Berryessa Creek and extends from the confluence of the Creek, about 3,000 ft upstream to a drop structure near Milpitas High School. In its existing condition, the creek lacks capacity to convey the 1% flow without overtopping of its banks. Therefore, to provide flood protection for nearby residences and businesses, the district included Lower Calera Creek as one of six elements composing the Lower Berryessa Creek Program. Reconfiguration of Lower Calera Creek channel to provide 1% flow conveyance capacity was analyzed in the 2011 Lower Berryessa Creek Program EIR. In 2014 and 2015, The district obtained the following permits from regulatory agencies allowing construction of improvements to the Lower Berryessa Creek and Lower Calera Creek elements:

- San Francisco Regional Water Quality Control Board, 401 Water Quality Certification and Waste Discharge Requirements (CIWQS Place No. 768945 (MB), CIWQS Regulatory Measures No. 397588)
- California Department of Fish and Wildlife Streambed Alteration Agreement No. 1600-2013-0159-R3
- U.S. Army Corps of Engineers 404 Permit, File Number 28440S

Phase 1 of the construction project covers the portion of the Lower Berryessa Creek element extending from Lower Penitencia Creek confluence to Abel Street crossing (see Figure 1). Construction of Phase 1 started in 2015 and was completed in December 2016. Phase 2 of the project includes work on both the Lower Berryessa Creek and Lower Calera Creek elements. The Phase 2 improvements to Lower Berryessa Creek extend from Abel Street to E. Calaveras Blvd. Phase 2 work on Lower Berryessa Creek and construction started in 2016. All improvements for the Lower Berryessa Creek element are currently scheduled for completion by the end of calendar year 2018. Construction of the Phase 2 improvements to Lower Calera Creek



are planned to start in calendar year 2019. The Lower Calera Creek element is composed of two reaches as described in Table 1.

| <b>Table 1: Lower Calera Element Reaches</b> |                               |                                   |                   |
|--|-------------------------------|-----------------------------------|-------------------|
| Reach  | Downstream limit              | Upstream Limit                    | Reach Length (ft) |
| A  | Lower Berryessa Cr confluence | N. Milpitas Blvd.                 | 800               |
| B  | N. Milpitas Blvd.             | Drop Structure (near Milpitas HS) | 2,200             |
| Total length (ft)                            |                               |                                   | 3,000             |

## 2. CEQA CONSIDERATIONS

SCVWD prepared this EIR Addendum in compliance with Section 15164(a) of the CEQA Guidelines, which states:

The lead or responsible agency shall prepare an addendum to a previously certified EIR if some additions or changes are necessary, but none of the conditions described in section 15162 calling for preparation of a subsequent EIR exist.

Section 15162 of the CEQA Guidelines states:

When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for the project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (3) New information of substantial importance which was not known or could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
  - (A) The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;
  - (B) Significant effects will be substantially more severe than discussed in the previous EIR;
  - (C) Mitigation measures or alternatives found to not be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the



project, but the project proponents decline to adopt the mitigation measure or alternative; or

- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the measure or alternative.

As demonstrated in the analysis below, conditions described in section 15162 requiring preparation of a subsequent EIR are not present with respect to the redesigned Lower Calera Creek Element. The proposed redesign would not result in significant environmental effects beyond those described in the 2011 EIR or substantially increase the severity of significant environmental effects included in the 2011 EIR. New mitigation measures or alternatives which are considerably different from those identified in the 2011 EIR and would substantially reduce the project effects on the environment have not been identified. Therefore, preparation of an EIR Addendum is appropriate under Section 15164(a) of the CEQA Guidelines.

### 3. DESCRIPTION OF PROPOSED CHANGES TO THE LOWER CALERA ELEMENT

The Lower Calera Creek design analyzed in the 2011 EIR was based on the information available at the time. Since project permits were issued in 2014 and 2015, the district has re-evaluated the Lower Calera Creek design and found that changes to the element design are necessary to meet project objectives and minimize environmental effects. The needed design changes affect both Reaches A and B (See Figures 1, 3, and 4). The district is proposing the following two design modifications to the Lower Calera Creek Element:

**Reach A:** This reach, extending from the Union Pacific Railroad Bridge upstream to N. Milpitas Boulevard, contains an existing roughly 500-ft long concrete U-frame structure that lines the channel bed and banks (see Figures 1 and 3). The element design analyzed in the 2011 EIR retained the existing concrete U-frame and raised the height of the walls by 4 feet to increase flow conveyance capacity. It also included a new top-of-bank channel access road on the south side of the U-frame. However, recent structural analysis found that the existing U-frame is not competent to support the proposed raised walls; therefore, the U-frame must be replaced to increase capacity to pass the 1% flow. The district proposes to demolish and remove the existing U-frame and construct a new concrete U-frame structure and channel access road/ramp in Reach A. (See Figure 2). The modified creek channel would include a maintenance road and ramp accessing the channel on the south bank of the creek, and a 10-ft tall head wall (elevation 17.5 ft to 27.5 ft North American Vertical Datum 1988 [NAVD88]) on the existing railroad bridge at the downstream end of the U-frame. After construction is complete, the creek bed within the U-frame would be concrete lined under both the EIR/permitted design and the proposed redesign. However, the concrete bed of the redesigned channel would be lower than the existing concrete bed lining (which would be removed) and one foot of soil would be placed over the concrete bed lining to create a soft channel bottom. Sediment accumulates in this section of channel under



existing conditions. Because the gradient, width, and length of this of this channel reach would be unchanged from existing conditions, it is expected that the soil placed in the channel will be relatively stable and would support vegetation growth.

Demolition of the U-frame would generate about 672 CYs of concrete debris that would be disposed of at a licensed off-site disposal area. About 2,355 CY of concrete would be used to construct the new U-frame and adjoining retaining wall for the channel access road/ramp, compared to 140 CYs of concrete placed under in this reach under the permitted design. Thus, the redesigned project would require about 2,215 CYs more concrete than the EIR/permitted design.

The duration of construction activities in Reach A would increase somewhat as removal and replacement of the U-Frame would likely take longer than extending the U-frame walls (i.e. the design analyzed in the 2011 EIR). However, the increased duration would not be substantial as the district expects that all Reach A work would still be completed in a single construction season as analyzed in the 2011 EIR.

**Reach B:** This reach contains an existing roughly 2,200 ft long trapezoidal earthen channel and existing bridges at the N. Milpitas Boulevard and Arizona Avenue creek crossings (see Figure 4). For Reach B, the project EIR analyzed the following design components:

- 4,400 linear ft of concrete floodwalls on both banks extending the length of Reach B, with heights up to 8 ft above the ground surface (viewed from outside the channel)
- concrete headwalls up to 9.3 ft in height on the N. Milpitas Boulevard bridge and up to 6.5 ft in height Arizona Avenue bridge,
- ramps at N. Milpitas Boulevard and Arizona Avenue Bridges to provide channel access, and
- an 18-ft-wide maintenance road on the top of the south bank and a 5-ft wide pedestrian path on the top of the north bank.

Recent modelling of the creek flows shows that is not necessary for the Reach B floodwalls to extend to the upstream Reach limit (i.e. the existing drop structure adjacent to Milpitas High School) to provide 1% flow capacity. The redesign includes 1,560 linear ft of floodwall on the north bank and 1,370 linear ft of floodwall on the south bank. The total length of Reach B floodwalls would be 2,930 ft, which is 1,470 ft (33%) less than the 4,400 linear ft of floodwalls in the 2011 EIR project. The floodwalls, similar to the 2011 EIR project, would be constructed on the crest of the existing earthen levees on either side of the creek channel. The proposed floodwalls would be taller than the 2011 EIR project floodwalls which were described as up to 6.5 ft in height. The redesigned floodwalls would range up to 8.5 ft in height above the levee crest (aka ground surface) on the north and south banks. Elevation of the floodwalls would range from 20.0 to 28.5 ft NAVD88 for the wall section between N. Milpitas Blvd. and Arizona



Avenue and 22.0 to 29.0 ft NAVD88 for the wall section upstream of Arizona Avenue. The sections of floodwall taller than 6.5 ft exceeding 6.5 ft in height above the levee crest (aka ground surface) would be located directly upstream of the N. Milpitas bridge, extending about 260 ft upstream on the north bank and about 300 ft on the south bank. All other sections of the floodwall would be less than 6.5ft in height above levee crest (aka ground surface).

The amount of concrete used to construct the floodwalls and footings would decrease by 35% (from approximately 810 CY to approximately 530 CY) and floodwall footprint area would decrease by 38% from approximately 0.32 ac to approximately 0.2 ac.

The existing concrete box culverts at both the N. Milpitas Blvd. and Arizona Avenue crossings would not be changed and would remain in place. About 3,600 square feet of in-channel sacked concrete located upstream of the N. Milpitas Boulevard culvert and upstream and downstream of the Arizona Avenue culvert would be removed. About 1,500 sq. ft. of one-quarter ton rocks would be placed at the upstream entrance to the N. Milpitas Blvd. culvert to prevent erosion.

Headwalls on the N. Milpitas Blvd. bridge would be raised in height. The existing headwalls have crest elevations of 21.8 ft NAVD88. New concrete headwalls would be constructed at the upstream and downstream face of the bridge and would tie into floodwalls on both banks. The upstream headwall would be 8.7 ft in height (19.8 to 28.5 ft NAVD88). The downstream headwall would be 6.7 ft in height (20.8 to 27.5 ft NAVD88). The upstream and downstream headwalls would be 6.7 ft and 5.7 ft, respectively, taller than the existing N. Milpitas Blvd. bridge headwalls.

Headwalls on the Arizona Avenue. bridge would also be raised in height. The existing headwalls have crest elevations of 23.6 ft NAVD88. New concrete headwalls would be constructed at the upstream and downstream face of the bridge and would tie into floodwalls on both banks. The upstream headwall would be 6.5 ft in height (22.5 to 29.0 ft NAVD88) and the downstream headwall would be 6.2 ft in height (22.3 to 28.5 ft NAVD88). The upstream and downstream headwalls would be 5.4 ft and 4.9 ft, respectively, taller than the existing Arizona Avenue bridge headwalls.

The Reaches A and B redesigned plans are not dependent on one another. Each is an independent refinement to the project design arising from additional analysis conducted since the project EIR was certified in 2011.

#### **4. ENVIRONMENTAL ANALYSIS**

The proposed redesign of Phase 2 of the Lower Berryessa Creek element would not substantially change size of the project area or the design flow capacity of the creek. Changes to the environmental impacts that would result from implementing the Lower Calera Creek redesign are identified and compared to the level of environmental impact described in the 2011 Final EIR



are discussed below. The discussion below is organized by topic area, as was the 2011 EIR.

#### **4.1 Aesthetics**

In reach A, Lower Calera creek currently flows through a concrete U-frame channel. The proposed project analyzed in the 2011 EIR would retain the existing concrete U-frame and add new raised concrete walls on either side to increase flow capacity. The redesign would replace the existing concrete U-frame channel with a new concrete U-frame with taller walls. The elevation of the U-frame walls would be similar to the elevation of the flanking walls analyzed in the 2011 EIR. Under both the 2011 EIR design and the redesign, Reach A would consist of a concrete U-frame channel and visual quality would be similar.

Residential uses predominate along Reach B, although limited commercial development is also present. In Reach B, the redesign includes concrete floodwalls as does the 2011 EIR project. However, the redesign would significantly reduce the length of floodwalls by 33%. Between N. Milpitas Blvd and 300 ft upstream, the modified project design would increase the floodwalls by up to 2 ft taller than the 2011 EIR project. In the remaining 1,900 linear ft of Reach B, floodwall height would be 6.5 ft above ground or less, which is the maximum floodwall height for the 2011 EIR project. The redesign would result in minimal change to aesthetic impacts. As discussed in the 2011 EIR, Reach A is flanked on both sides by industrial uses and is minimally visible from public viewpoints. Reach B may be noticeable by motorists and pedestrians on North Milpitas Avenue and Arizona Avenue, but the additional height of floodwall along a small portion of the reach would not substantially change the visual quality of the area. The aesthetic impacts of the redesign would be less than significant, similar to the 2011 EIR project.

#### **4.2 Air Quality**

Compared to the 2011 EIR project, the proposed redesign would increase soil disturbance from 3.06 to 3.19 ac, an increase of 4%, resulting in a slight increase in fugitive dust emissions. This increase would not be substantial. The district would implement Measure 3.C-1 from the 2011 EIR to control and reduce dust emissions to a less-than-significant level.

Vehicle trips and equipment used during construction would result in emissions of criteria air pollutants. The primary change would be an increase in the amount of concrete placed during construction. Considering both Reaches A and B, the volume of concrete placed would increase from 950 CY to 2,885 CY, an increase of 203%. The amount of criteria air emissions generated during concrete placement would increase proportionately. However, the redesign would have insubstantial effect on the amount of generation of criteria pollutants during site preparation, earthwork, or installation of site improvements and amenities, based on additional air quality analysis described below.

Table 3 is a modified version of Table 3.C-6 from the 2011 EIR. This table shows the emissions of criteria pollutants that would result during construction of the redesigned Lower Calera Creek





Element using methodology recommended by the Bay Area Air Quality Management District (BAAQMD). In Table 3, daily emissions for each pollutant are multiplied by the duration of each construction activity to calculate the total emissions in tons. Total emissions are divided by the overall duration of the construction season (160 days) to determine average daily emissions for each criteria pollutant. BAAQMD established significance thresholds for reactive organic gases (ROG), nitrogen oxides (NOx), particulate matter with diameters of 10 microns and 2.5 microns or less (PM<sub>10</sub> and PM<sub>2.5</sub>, respectively). BAAQMD has not established a significance threshold for carbon monoxide (CO). As shown in Table 2, construction of the redesigned Lower Calera Creek Element would not result in emissions of ROG, CO, PM<sub>10</sub>, or PM<sub>2.5</sub> exceeding significance thresholds. Construction-period emissions of NOx would increase from an estimated 144.0 lbs./day for the 2011 project to an estimated 236.7 lbs/day for the redesign. Both the 2011 EIR project and the redesign would result in daily NOx emissions exceeding the significance thresholds established by the Bay Area Air Quality Management District.

However, the District would continue to implement mitigation measures 3.C-1 and 3.C-2a from the 2011 EIR to reduce exhaust emissions from the redesigned project. The District would also prepare an emissions reduction plan in keeping with Mitigation Measures 3. C-2b. Implementation of these measures would reduce the amount of increase in emissions resulting from the redesign, and as a result, the redesign would not result in new or substantially worse significant air quality impacts.

Sediment removed from U-frame bed during demolition could be odiferous. However, neighboring industrial and commercial properties are not sensitive to odors and Best Management Practice (BMP) AQ-4 would be implemented prevent stockpiling of odoriferous soils at the project site. This impact would continue to not less than significant.

**Table 2: Emissions of Criteria Pollutants During Construction of the Redesigned Lower Calera Creek Element**

| Construction Activity                    | Duration  | Criteria Pollutant Emissions (lbs./day) |       |       |                  |                   |
|--|-----------|---|-------|-------|------------------|-------------------|
|  |           | ROG                                     | CO    | NOx   | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Site Preparation                         | 1 month*  | 13.5                                    | 46.7  | 123.9 | 4.7              | 4.4               |
| Earthwork                                | 2 months* | 19.2                                    | 69.7  | 170.5 | 7.1              | 6.5               |
| Site Improvement and Amenities           | 2 months* | 13.3                                    | 44.4  | 119.5 | 4.8              | 4.6               |
| Concrete Placement                       | 3 months* | 41.2                                    | 134.5 | 366.6 | 15.2             | 13.9              |
| Total Emissions (tons)                   |           | 2.1                                     | 7.1   | 18.9  | 0.8              | 0.7               |
| Average (lbs./day)                       |           | 26.3                                    | 88.8  | 236.7 | 9.7              | 8.9               |
| BAAQMD Significance Threshold (lbs./day) |           | 54                                      | n/a   | 54    | 82               | 54                |
| Exceeds Threshold                        |           | No                                      | n/a   | Yes   | No               | No                |

\*each month has 21 working days



### 4.3 Biological Resources

The trashy sediment and concrete bed liner would be removed as part of the redesign and replaced by one foot of clean soil placed in the reconstructed U-frame.

The Reach A U-frame is currently partially vegetated with plants growing on sediment accumulated in the U-frame (See Figure 3). Additionally, this sediment contains large amounts “excessive organic material and trash” (HT Harvey, 2017). Both the 2011 EIR project and the redesign would require dewatering of this reach for one construction season. Under the 2011 EIR project, this creek reach would be dewatered to enable construction of concrete wall on both sides of the U-frame, but the concrete lining and accumulated sediment, would not be removed. If the redesign is implemented, the reach would be dewatered and about 0.25 acre of sediment, vegetation, and the concrete bed and bank lining would be removed. This freshwater marsh habitat is currently underlain at a depth of about one foot by an existing concrete lining, which limits rooting depth and reduces the habitat value of this fresh water marsh. The existing concrete lining would be removed and replaced with new concrete bed and bank lining and a one-foot thick layer of native soil compacted to 85%. This soil would facilitate growth of freshwater marsh vegetation in the U-Frame. Both the 2011 EIR project and the redesign would result in a concrete-lined channel in Reach A. However, the redesign includes placement of soil over the concrete bed to create a soft-bottomed channel that would support vegetation growth. Because the soil bed would be continuous through the U-frame and would be deeper than the existing soil layer, it would support denser vegetative growth and provide a modest improvement in habitat value within the U-frame.

In the last 16 years, sediment has accumulated to a depth of about one foot in the U-frame. Thus, it is believed that the one foot of soil placed in the newly constructed U-frame would be stable in the long-run and the need for future sediment removal can be avoided. The placed sediment would support herbaceous vegetation which would result in improved habitat compared to the existing degraded condition of habitat in the U-frame. The resulting in-channel habitat would be an improvement over the existing channel condition due to the increased depth and lateral extent of the soil cover in the creek bed, and the removal of the large plastic debris and other trash which has accumulated in this channel reach.

In Reach B, the redesign would include reduced length of floodwalls compared to the 2011 EIR project. As a result, the area of vegetation removal and impacts to ruderal/ non-native grassland habitat would decrease by 0.12 ac. This would represent a decrease in level of impact. The district would implement 2011 EIR Mitigation Measures M-3-D-4b, Compensate for wetlands and riparian habitat loss. Measures M-3.D6a, tree and shrub replacement, and M-3.D6b, tree protection measures, would be implemented to reduce project impacts to trees and shrubs.



Both Reaches A and B of Lower Calera Creek lack suitable habitat for the San Francisco dusky-footed woodrat. The woodrat does not occur in either reach and would not be impacted by either the 2011 EIR project or the redesign.

After project construction is complete, both the 2011 EIR project and the redesign would result in a concrete U-frame in Reach A with vertical concrete walls running the length of the reach constraining wildlife access to the channel. The redesign would not change the level of impact to wildlife movement. In Reach B, the length of floodwalls would be reduced by 33% compared to the 2011 EIR project, which would decrease the amount of obstruction to wildlife movement and reduce barriers to channel access by wildlife. Overall impacts to wildlife movement would be less than significant and slightly decreased compared to the 2011 EIR project.

Regarding potential conflicts with local policies/ordinances protecting biological resources, the redesign would not change the number or types of trees removed during project construction. Both the 2011 EIR project and the redesign would conform to requirements of the city of Milpitas Tree Maintenance and Protection Ordinance.

The district would implement the following mitigation measures from the 2001 Final EIR:

- 3.D-4b, compensate for wetland and riparian habitat loss,
- 3.D-6a, Treena shrub replacement, and
- 3.D-6b, tree protection measures.

The redesign would be consistent with the Habitat Mitigation and Monitoring Program (HMMP) prepared for the Lower Berryessa Flood Protection Improvements Project, which was approved by California Department of Fish and Wildlife and San Francisco Bay Regional Water Control Board (Santa Clara Valley Water District, 2014). The redesign included planting and establishment of in-channel freshwater wetlands within the Lower Calera element to implement measure 3.D-4b in conformance with the approved HMMP. Similar to the 2011 EIR project, the redesign would result in less than significant impacts to biological resources after mitigation. Based on the above, the proposed redesign would not result in new or substantially worse significant impacts to biological resources.

#### **4.4 Cultural Resources**

Under the redesign, the only area of new soil disturbance would be the bed of concrete-lined U-frame in Reach A. It is very unlikely that archaeological or paleontological resources would be present as this area was previously disturbed during initial construction of the U-frame. In Reach B, the area of soil disturbance would decrease by about 0.12 ac, reducing the potential for uncovering of archaeological or paleontological resources. Similar to the 2011 EIR project, the redesign would have not potential for impacts to archaeological or historic resources and less than significant impact to paleontological resources.



#### **4.5 Geology and Soils**

Construction footprint would increase by 0.25 ac in Reach A and decrease by 0.12 ac in Reach B. Total area of soil disturbance in Lower Calera element would increase by 2%, which would represent an insubstantial increase in project area. As described in the 2011 EIR, the district would implement standard erosion control measures and prepare a storm water pollution prevention plan (SWPPP) in conformance with National Pollution Discharge Elimination System General Permit for storm water discharges from large construction sites. The project area is level and not subject to slope instabilities or landslide hazards. The Reach A U-frame replacement would use of about 2,215 more CY of concrete than the 2011 EIR project. This would be partially offset by a decrease of about 280 CY in concrete used to construct the of Reach B floodwalls. The redesign would result in a net increase in the amount of concrete used during project construction of about 1,935 CY.

The district would implement Mitigation Measures 3.F.1, Geotechnical investigations, and 3.F-4, geotechnical explorations, which require that the district conduct geotechnical studies and incorporate design recommendations to prevent hazards arising from expansive soil hazards or seismic activity. As a result, impacts relating to seismic events and expansive soils from the redesign would not be substantially increased, and the impacts would be less-than-significant after mitigation.

#### **4.6 Greenhouse Gases (GHGs)**

The redesign would increase construction activities in Reach A and decrease construction activities in Reach B. The amount of GHGs emitted would vary proportionately with the change in construction activity. Increased GHG emissions would occur in Reach a and would be offset by decreased emissions in Reach B. Overall, the redesign would result in a negligible change in the amount of GHGs emitted during project construction, and no change in GHGs emissions during operation. The GHG emissions from the redesign would continue to be less than significant, similar to the impacts described in the 2011 EIR.

#### **4.7 Hazards and Hazardous Materials**

The redesign would not change the potential for wildland fires. The impact relating to wildland fires would continue to be less than significant.

The redesign would not change the types of hazardous materials used during construction or operation of the Lower Calera Creek Element. The resign would not affect the project location or result in increased hazardous emissions within ¼ mile of a school. The District would implement Mitigation Measure 3.H-1, soil and groundwater management plan, to ensure proper soil and groundwater management and prevent release of hazardous materials to the environment. Thus, the modified project would not result in a substantial increase in this impact and would continue



to be less than significant after mitigation.

Compared to the 2011 EIR project, the redesign would generate about 310 additional truck trips spread over one construction season. The trips would be spread over a period of 5.5 months, resulting in an increase of about three trucks trips per work day. Additionally, most of the additional trips would be for concrete delivery and Reach A abuts a commercial concrete plant. That plant was used to supply concrete for Phase 1 of the project and would be expected to supply concrete for construction of the Lower Calera Element. The District would apply Mitigation Measure M-3.M-1, traffic control plan, which would implement traffic control measures to prevent interference with emergency response actions. This measure would ensure that traffic impacts of the redesign would be less-than-significant after mitigation

#### **4.8 Hydrology and Water Quality**

The redesign would slightly increase by the 0.13 ac, or 2%, the area of soil disturbance during construction as compared to the 2011 EIR project. Similar to the 2011 EIR project, both Reaches A and B of the element would be dewatered for one season to allow construction while minimizing impacts to water quality and downstream flows.

The redesign would reduce temporary construction-period impacts to aquatic and riparian habitat along the Lower Calera Creek channel by reducing the area of dewatering. Assuming that the coffer dams used for dewatering the creek are located 100 ft upstream and downstream of the construction area (in conformance with RWQCB guidelines), about 2,500 ft of the Lower Calera Creek channel would be dewatered to construct the redesign; 700 ft (22%) less than for the 2011 EIR project. BMPs would be implemented to prevent degradation of water quality. Redesign would not change creek hydrology, drainage patterns, flow conveyance capacity of the creek channel, or the size of the low-flow channel. Redesigned channel would have 1% flow conveyance capacity with freeboard as would the 2011 EIR project. Impacts of the redesign to water quality and hydrology would be less than significant, similar to the level of impact for the 2011 EIR project.

#### **4.9 Land Use and Planning**

Like the 2011 EIR project, the redesign would retain all existing creek crossings and would not physically divide the community. Similarly, both the 2011 EIR project and the redesign would be consistent with applicable land use plans and policies. The impacts to land use from the redesign would be less than significant.

#### **4.10 Noise**

The types of equipment used during construction, distance from sensitive receptors, and hours of construction would not change. Construction would mostly occur during normal business hours,



with occasional weekend work. Construction of the redesign would be consistent with the City of Milpitas Construction Noise Abatement Ordinance which restricts construction activities to 7 AM to 7 PM on weekdays and weekends. Construction is not allowed on specified holidays. The duration of construction activities would increase in Reach A and decrease in Reach B. Overall, the increase in impact would not be substantial. District would implement Mitigation Measures 3.K-1a, noise control techniques; 3.K-1b, minimize noise from impact equipment; and 3.K-1c, minimize noise from stationary sources, to reduce construction noise. These measures would reduce noise impacts of the redesign to a less-than-significant level after mitigation.

#### **4.11 Recreation**

No public parks or recreation areas are located at or near the redesign areas. The redesign would not increase use of public parks or recreation areas or adversely affect the experience of park or recreation area users. The redesign, like the 2011 EIR project, would result in less than significant impacts to recreation.

#### **4.12 Transportation and Traffic**

The 2011 EIR project would result in significant impacts to traffic and transportation, which would be mitigated to less than significant. Compared to the 2011 EIR project, the redesign would result in a minor increase in the amount of traffic generated during the construction period. Increased haul truck and concrete truck trips would occur at Reach A and would primarily affect North Milpitas Blvd. Haul routes would not change. The redesign would increase the amount of concrete used during project construction by 1,935 CY over that estimated in the EIR. Based on an average concrete truck capacity of 8 CY, about 240 extra trips by concrete trucks would result. Demolition of the Reach A U-frame would generate an additional 672 CY of debris over that considered in the EIR. Based on an average haul truck capacity of 10 CY, roughly 70 additional trips would be generated. Overall, the redesign would generate about 310 extra truck trips, which would be spread over a 4-month construction season and average about 4 additional truck trips per work day. The minor increase in truck traffic would not affect result in increased congestion on local roads or create safety hazards to other motorists. There would no conflict with local plans/policies. District would implement Mitigation Measures 3.M-1, traffic control plan, and 3.M-2, repair damaged roads) from the 2011 EIR to reduce impacts to public safety and infrastructure; these measures would reduce the transportation/traffic impacts of the resign to less-than-significant level after mitigation.

#### **4.13 Utilities and Service Systems**

Removal of the Reach A U-frame would generate 672 CY of concrete waste, a 0.3% increase, for off-site disposal. This would result in an insubstantial increase in impact relating to adequate landfill capacity. The District would implement Measure 3.N-1 to prevent significant reduction in capacity at local landfills. Similar to the 2001 EIR project, the impact from the redesign be less than significant after mitigation.



The redesign would not change the construction area, except for reducing its size at the upstream end of Reach B. The potential to affect utility lines would not decrease to the reduced size of the construction area. The new U-frame in Reach A and improvements in Reach B would accommodate existing utility lines. The District would implement Measures 3.N-2a, preconstruction utility identification and coordination; 3-N-2b, protection of other utilities during construction; 3-N-2c, advance notification; 3.N-2d, emergency response plan and notification to prevent harm to utilities; and M-3.N-1, appropriate landfill use, to reduce project impacts to utilities and service systems. With these measures, the impact from the redesign would continue to be less than significant after mitigation.

#### **4.14 Energy Consumption**

The redesign would generate about 310 additional truck trips compared to the 2011 EIR project. The average length of each one-way trip would be expected to be less than 2 miles as a concrete plant and a landfill are located within 2 miles of Reach A. Based on a 4-mile round trip, the additional trips would total 1,240 total miles. Using the average fuel economy for heavy-duty trucks of 6.1 miles per gallon (from Table 3.O-2 of the 2011 EIR), total additional fuel consumption would be about 200 gallons, equivalent to a 0.15% increase over the 135,240 gallons of fuel to be consumed during overall program implementation. The increase in energy consumption would be insubstantial.

Table 3 summarizes the results of the above impact analysis, the significance level of impacts, as identified by the 2011 project EIR, and changes in level of impact that would result from the proposed redesign.



**TABLE 3: Summary of Environmental Effects of Redesigned Lower Calera Creek Element Compared to 2011 Project EIR**

| Issue Area from 2011 EIR | Impact   | 2011 EIR Level of Impact / (2011 EIR Level of Impact with Mitigation if applicable) | Change in Level of Impact due to Redesign | Redesign Level of Impact (Redesign Level of Impact with Mitigation if applicable) |
|--------------------------|--|---|---|---|
| Aesthetics               | 3.B-1, Damage to scenic resources.   | NI  | No change                                 | NI  |
|                          | 3.B-2, Impacts to visual quality of area.  | LTS   | No change                                 | LTS   |
|                          | 3.B-3, Light and glare.  | LTS   | No change                                 | LTS   |
| Air Quality              | 3.C-1, Fugitive particulate matter (PM).   | S (LTS)   | Minor increase                            | S (LTS)   |
|                          | 3.C-2, Generation of criteria pollutants.  | S (SU)  | Minor increase                            | S (SU)  |
|                          | 3.C-3, cumulatively considerable increases in generation of criteria pollutants for which Bay Area is in non-attainment. | S (SU)  | Minor increase                            | S (SU)  |
|                          | 3.C-4, expose sensitive receptors to substantial pollution concentrations.   | S (LTS)   | No change                                 | S (LTS)   |
|                          | 3.C-5, Expose sensitive receptors to objectionable odors.  | LTS   | No change.                                | LTS   |
| Biological Resources     | 3.D-1 Impacts on special status species, including California red-legged frog and Western pond turtle.                   | LTS   | Minor reduction                           | LTS   |
|                          | 3.D-2, Impacts on special status birds or bats.  | LTS   | Slight reduction.                         | LTS   |
|                          | 3.D-3, Impacts to SF dusky-footed woodrat.   | LTS   | No change.                                | LTS   |
|                          | 3.D-4, Adverse effects on federal- or state-protected wetlands or waters, riparian or other sensitive communities.       | S (LTS)   | Minor increase                            | S (LTS)   |
|                          | 3.D-5, Impacts on movement corridors for migratory fish or wildlife species  | LTS   | Minor reduction                           | LTS   |
|                          | 3.D-6, Conflict with local policies/ordinances protecting biological resources.  | S (LTS)   | No change                                 | S (LTS)   |





| Issue Area from 2011 EIR        | Impact  | 2011 EIR Level of Impact / (2011 EIR Level of Impact with Mitigation if applicable) | Change in Level of Impact due to Redesign | Redesign Level of Impact (Redesign Level of Impact with Mitigation if applicable) |
|---------------------------------|---|---|---|---|
| Cultural Resources              | 3.E-1, Impacts on unknown historical resources, archaeological resources, and/or human remains.                             | NI  | No change                                 | LTS   |
|                                 | 3.E-2, Impacts to known archaeological resources.   | NI  | No change                                 | NI  |
|                                 | 3.E-2, Impacts to known historical resources.   | NI  | No Change                                 | NI  |
|                                 | 3.E-4, Impacts on paleontological resources.  | LTS   | No change                                 | LTS   |
| Geology and Soils               | 3.F-1, Expose people or structures to substantial seismic hazards.  | S (LTS)   | No change                                 | S (LTS)   |
|                                 | 3.F-2, Substantial erosion of topsoil.  | LTS   | Minor increase                            | LTS   |
|                                 | 3.F-3, Hazards due to slope instability.  | LTS   | No change                                 | LTS   |
|                                 | 3.F-4, Hazards due to expansive soils.  | S (LTS)   | No change                                 | S (LTS)   |
| Greenhouse Gases (GHGs)         | 3.G-1, Cumulatively considerable increase in GHGs.  | LTS   | Minor increase                            | LTS   |
| Hazards and Hazardous Materials | 3.H-1, Create a hazard through exposure to or release of hazardous materials encountered during grading or excavation.      | S (LTS)   | No change                                 | S (LTS)   |
|                                 | 3.H-2, Improper storage or accidental release of hazardous materials during construction or operations.                     | LTS   | No change                                 | LTS   |
|                                 | 3.H-3, Emit hazardous emissions or involve handling of hazardous materials within ¼ mile or an existing or proposed school. | LTS   | No change                                 | LTS   |
|                                 | 3.H-4, Impair implementation of an adopted emergency response or evacuation plan.   | S (LTS)   | Minor increase                            | S (LTS)   |
|                                 | 3.H-5, Expose people or structures to risk of loss, injury, or death involving wildland fires.                              | LTS   | No change                                 | LTS   |



| Issue Area from 2011 EIR    | Impact  | 2011 EIR Level of Impact / (2011 EIR Level of Impact with Mitigation if applicable) | Change in Level of Impact due to Redesign | Redesign Level of Impact (Redesign Level of Impact with Mitigation if applicable) |
|-----------------------------|---|---|---|---|
| Hydrology and Water Quality | 3.I-1, Increased erosion and sedimentation and/or pollutant loading to surface waters, which could result in violation of water quality standards or otherwise degrade water quality. | LTS   | Minor increase                            | LTS   |
|                             | 3.I-2, Violation of water quality standards, and impacts on groundwater supplies and recharge due to dewatering   | LTS   | No change                                 | LTS   |
|                             | 3.I-3, Alter the existing drainage patterns and potentially result in downstream erosion of siltation on or off site.   | LTS   | No change                                 | LTS   |
|                             | 3.I-4, Alter the existing drainage pattern and potentially result in downstream flooding.   | LTS   | No change                                 | LTS   |
| Land Use and Planning       | 3.J-1, Physical division of an established community.   | LTS   | No change                                 | LTS   |
|                             | 3.J-2, Conflict with an applicable land use plan, policy, or regulation adopted for avoiding or mitigating an environmental effect.   | LTS   | No change                                 | LTS   |
| Noise                       | 3.K-1, Short-term and permanent increases in ambient noise levels at nearby noise receptors that could exceed established standards and ordinances.                                   | S (LTS)   | Minor increase                            | S (LTS)   |
|                             | 3.K-2, Exposure to or generation of excessive groundborne vibration or groundborne noise levels.  | LTS   | Minor increase                            | LTS   |
| Recreation                  | 3.L-1, Increased use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated.     | LTS   | No change.                                | LTS   |
|                             | 3.L-2, Indirect impacts on the recreational experience during construction.   | LTS   | No change                                 | LTS   |



| Issue Area from 2011 EIR                | Impact   | 2011 EIR Level of Impact / (2011 EIR Level of Impact with Mitigation if applicable) | Change in Level of Impact due to Redesign | Redesign Level of Impact (Redesign Level of Impact with Mitigation if applicable) |
|---|--|---|---|---|
| Transportation and Traffic <sup>3</sup> | 3.M-1, Conflict with local plans and policies related to the City's existing transportation and circulation system.  | S (LTS)   | No change                                 | S (LTS)   |
|   | 3.M-2, Increased potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways.      | S (LTS)   | Minor increase                            | S (LTS)   |
|   | 3.M-3, Impair access to adjacent roadways and land uses for both general and emergency response traffic.             | S (LTS)   | Minor increase                            | S (LTS)   |
| Utilities and Service Systems           | 3.N-1, Adequate landfill capacity to accommodate the Program's solid waste disposal needs.                           | S (LTS)   | Minor increase                            | S (LTS)   |
|   | 3.N-2, Potential to interfere with existing utilities.   | S (LTS)   | No change                                 | S (LTS)   |
|   | 3.N-3, Impacts related to compliance with federal, state, and local statutes and regulations related to solid waste. | S (LTS)   | No change                                 | S (LTS)   |
| Energy conservation                     | 3.O-1, Effects on energy resources such as fuel (including transportation energy).                                   | LTS   | Minor increase                            | LTS   |
|   | 3.O-2, Effects on regional and local supplies and capacities of fuel and electricity.                                | LTS   | Minor increase                            | LTS   |
|   | 3.O-3, Conflicts with existing energy conservation standards.  | LTS   | No change                                 | LTS   |

NI = No Impact  
 LTS = less than significant  
 S = Significant  
 SU = Significant and unavoidable

### Cumulative Impacts

According to the 2011 EIR, construction and operation of the Lower Calera element would not contribute to significant cumulative impacts in the areas of cultural resources. Similarly, the redesign would also not contribute to a significant cumulative impact in this area.



Reconstruction and operation of the Lower Calera Creek Element would contribute to significant cumulative impacts in the following areas:

- Aesthetics (tree removal)
- Air quality (construction-period NO<sub>x</sub> and PM<sub>2.5</sub> emissions)
- Biological resources (tree removal and wetlands impacts)
- Geology and soils (expansive soils and seismic hazards)
- Hazards and Hazardous Materials
- Land use
- Noise (construction-period auditory noise)
- Recreation
- Transportation and traffic
- Utilities and service systems
- Energy conservation.

In each of these areas except air quality, the impacts of the 2011 project would not be cumulatively considerable or the district would implement mitigation measures that would reduce the project contribution to these impacts to less than cumulatively considerable. In each area, the level of impact contribution from the redesign would be similar to that of the 2011 project and the same mitigation measures identified for the 2011 project would be implemented as part of the redesign. The contribution of the redesigned project to cumulative impacts in these areas (except air quality) would continue to be not cumulatively considerable.

With respect to air quality, both the 2011 project and the redesign would make considerable contributions to significant cumulative impacts in this area. As described above in the air quality section, with implementation of the air quality mitigation measures, the redesigned project would not substantially increase the level of impact and contribution to this significant cumulative impact.,

The redesign would not cause any new significant cumulative impacts not previously identified in the 2011 EIR.

## 5. CONCLUSION

As described herein, the proposed redesign of the Lower Calera Creek element of the Lower Berryessa Creek Project would not result in new significant environmental effects beyond those identified in the 2011 EIR and would not substantially increase the severity of previously identified significant effects. Additionally, the District has not identified any mitigation measures or alternatives that would substantially reduce one or more project impacts and were previously considered infeasible or are considerably different from those analyzed in the 2011 EIR. The proposed redesign would not cause any of the conditions listed in Section 15162 of the CEQA Guidelines to occur and a subsequent EIR is not required.



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James Manidakos, Associate Water Resources Specialist

## 6. REFERENCES

Diez, Matthew, Engineering Technician II, email to Youhan Lee, Project Manager (May 21, 2018).

HT Harvey, Memorandum to J. Manidakos (SCVWD), *Lower Berryessa and Lower Calera Creeks Flood Protection Improvements Project – Topsoil Management Plan, Soil and Phytophthora Sampling, Results, and Recommendations for Salvage and Re-use* (April 13, 2017).

Santa Clara Valley Water District. *Lower Berryessa Creek Program Final Environmental Impact Report. SCH #2007092084* (December 2011A).

Santa Clara Valley Water District. *Notice of Determination, Lower Berryessa Creek Program Environmental Impact Report* (December 16, 2011B).

Santa Clara Valley Water District, *Habitat Mitigation and Monitoring Plan for the Lower Berryessa Creek Program Elements: Lower Berryessa Creek and Lower Calera Creek* (June 2014; revised July 2014).

ATTACHMENT A: FIGURES

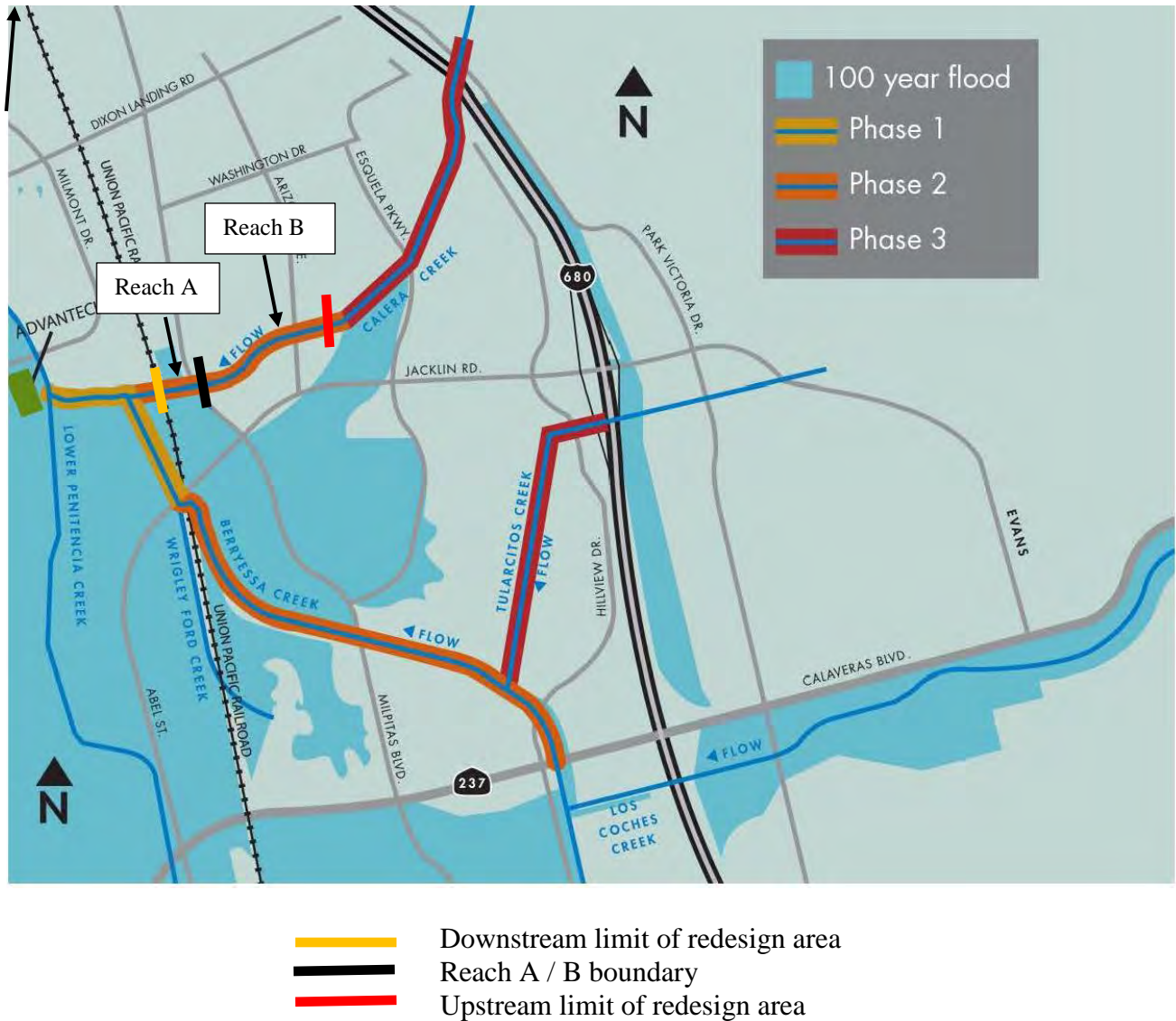


Figure 1: Location of the Lower Calera Element of the Lower Berryessa Creek Flood Protection Improvements Project

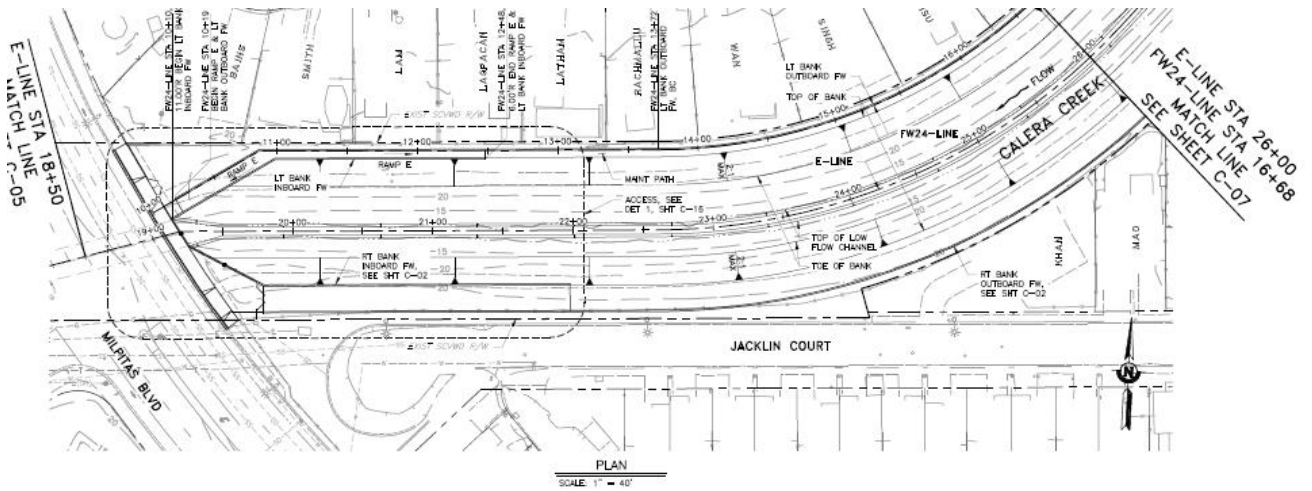
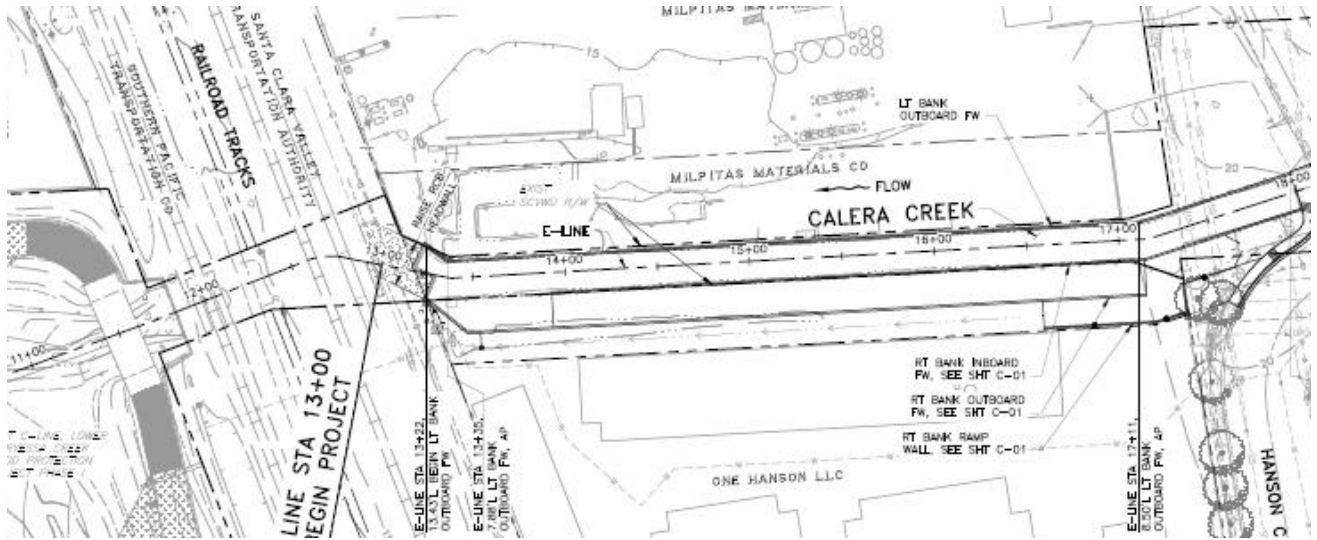


Figure 2: Drawings Showing Civil Design of The Lower Calera Element

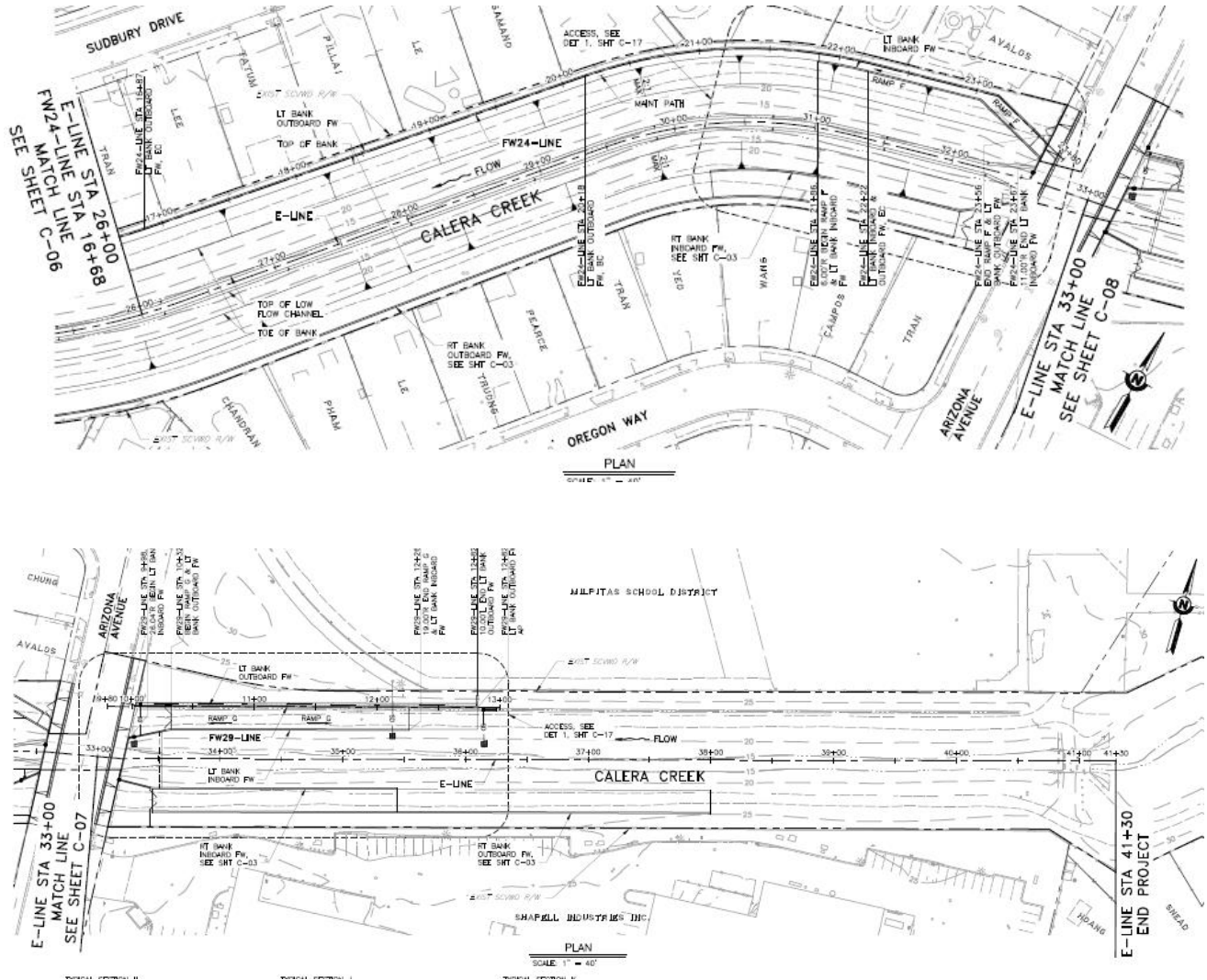


Figure 2 (concluded): Drawings Showing Civil Design of The Lower Calera Element





**Figure 3: Photographs of Existing U-frame in Reach A**



**Figure 4: Photographs of Reach B**