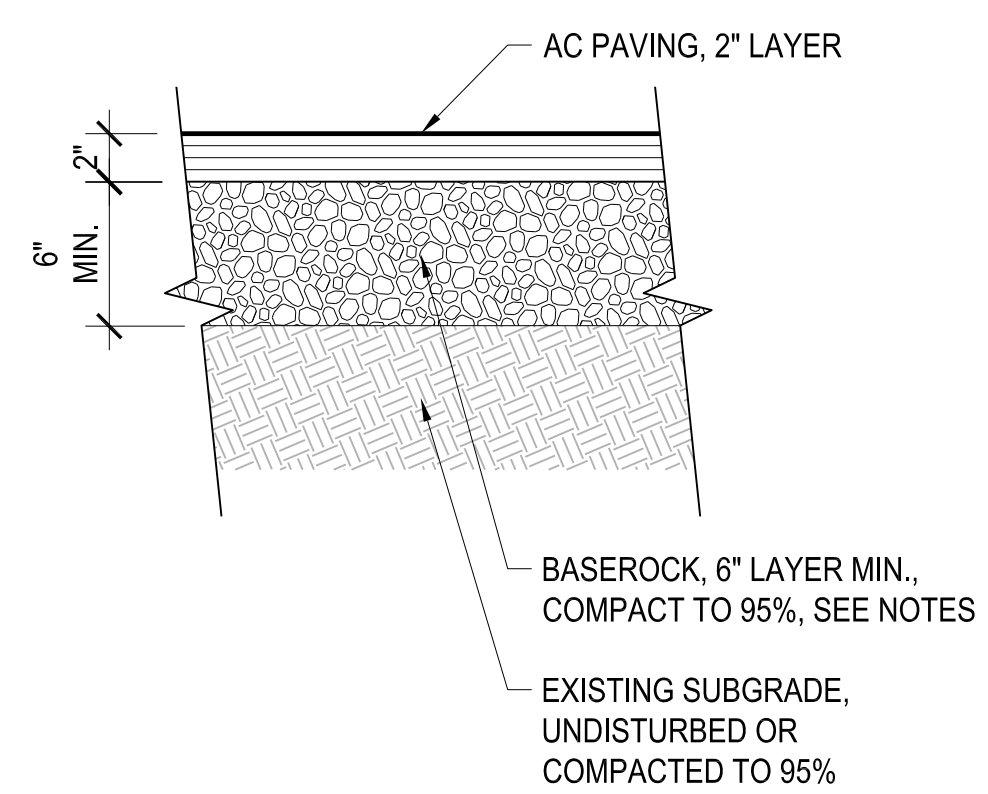


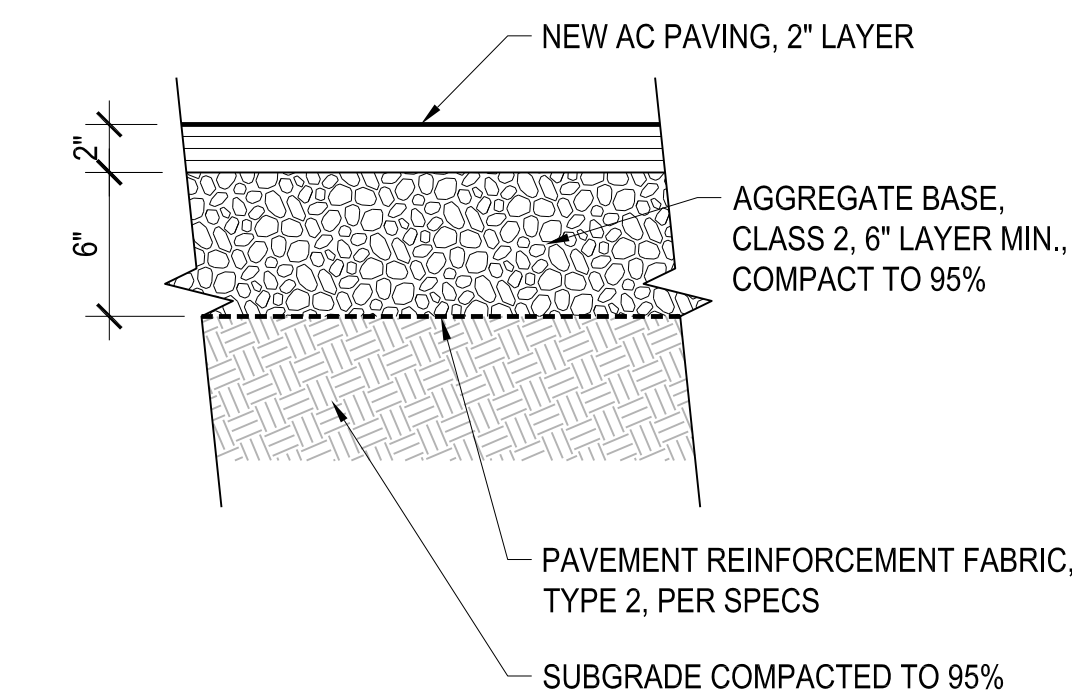
- NOTES**
- EXISTING AC SHALL BE SWEEP CLEAN PRIOR TO CONSTRUCTION OF OVERLAY
  - OVERALL THICKNESS OF AC OVERLAY SHALL BE GREATER THAN 2" WHERE NEEDED TO ACHIEVE 2% DRAINAGE TOWARD (E) V-DITCH
  - AC PAVING SHALL EXTEND TO FULL WIDTH OF EXISTING PAVING

**1 AC PAVING, TYPE 'A'**  
SECTION SCALE: 1 1/2" = 1'-0"



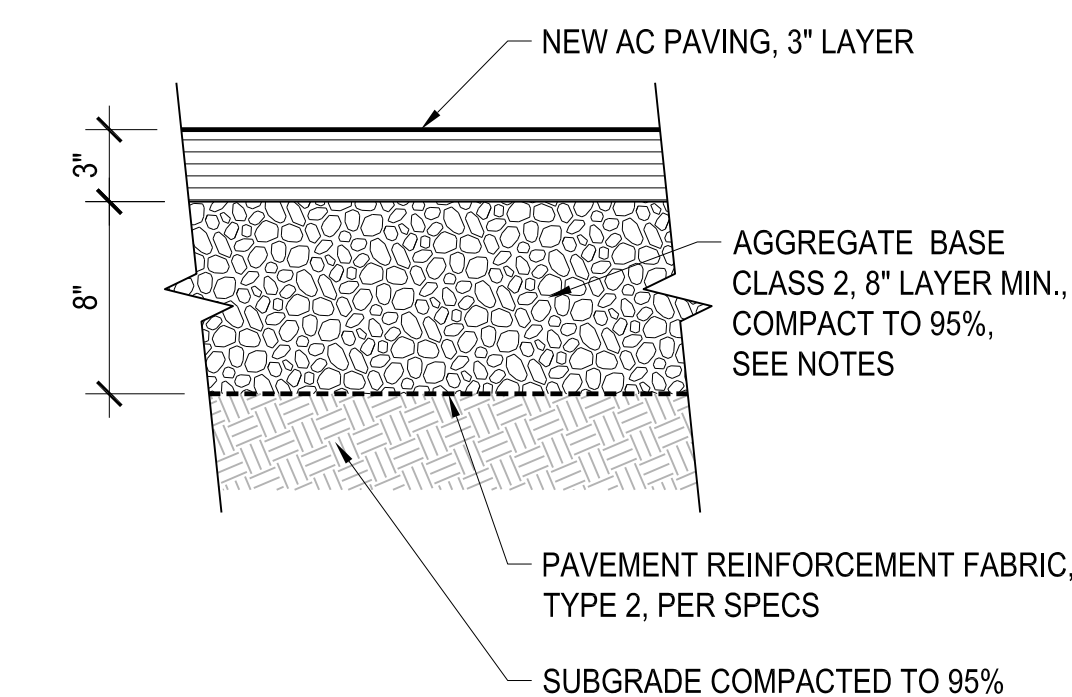
- NOTES**
- EXISTING PAVING SECTION IS APPROXIMATELY 2" AC OVER APPROXIMATELY 4" BASE ROCK.
  - EXISTING AC LAYER SHALL BE REMOVED
  - AT CONTRACTORS OPTION, EXISTING AC MAY BE PULVERIZED IN PLACE TO A MAXIMUM 3/4" SIZE, AND RE-USED AS BASEROCK. PULVERIZED AC SHALL NOT CONTAIN SUBSOIL.
  - BASEROCK LAYER SHALL BE COMPOSED OF PULVERIZED AC (AT CONTRACTORS OPTION), EXISTING BASEROCK, AND/OR NEW CLASS 2 AGGREGATE BASE.
  - NEW BASEROCK LAYER SHALL BE PROVIDED AS NECESSARY TO ACHIEVE MIN 6" THICKNESS AND TO PROVIDE POSITIVE DRAINAGE AT 2% TOWARDS V DITCH.
  - EXISTING SUBGRADE SHALL REMAIN IN UNDISTURBED CONDITION, SHOULD EX. SUBGRADE BE DISTURBED, IT SHALL BE RE-COMPACTED TO MINIMUM 95% RELATIVE DENSITY PRIOR TO APPLICATION OF BASEROCK.
  - AC PAVING SHALL EXTEND TO FULL WIDTH OF EXISTING PAVING

**2 AC PAVING, TYPE 'B'**  
SECTION SCALE: 1 1/2" = 1'-0"



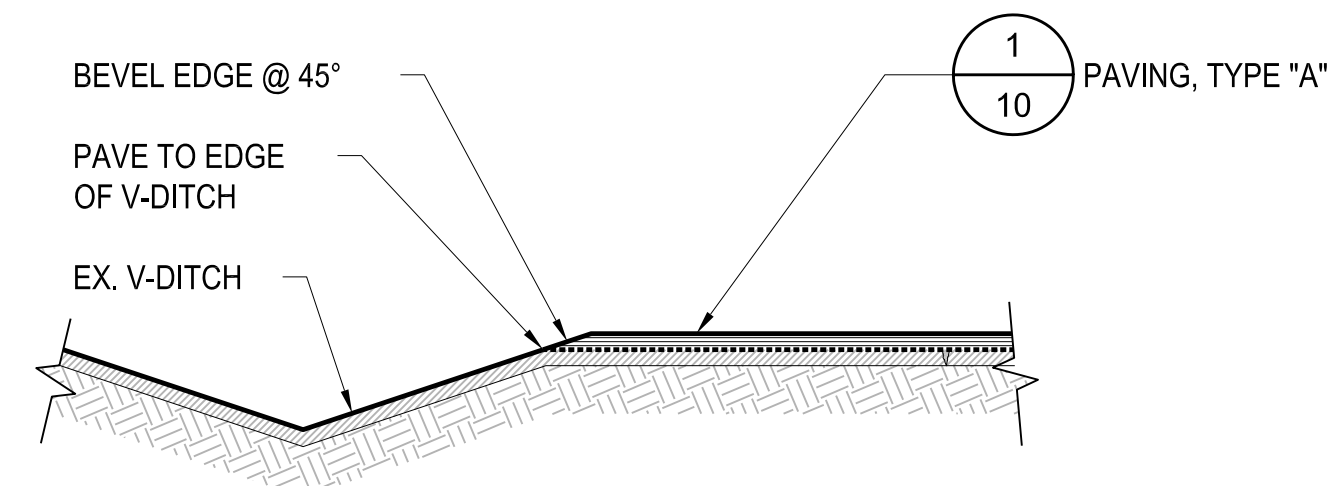
- NOTES:**
- FOR TYPE C PAVING, CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING AC AND BASE ROCK. EXISTING SECTION IS APPROXIMATELY 2" AC OVER 4" BASE ROCK.
  - NEW AGGREGATE BASE ROCK SHALL BE PROVIDED AS NECESSARY TO ACHIEVE MIN. 6" THICKNESS AND TO PROVIDE POSITIVE DRAINAGE AT 2% TOWARDS V DITCH.
  - AC PAVING SHALL EXTEND TO FULL WIDTH OF EXISTING PAVING

**3 AC PAVING, TYPE 'C' AND TYPE 'D'**  
SECTION SCALE: 1 1/2" = 1'-0"



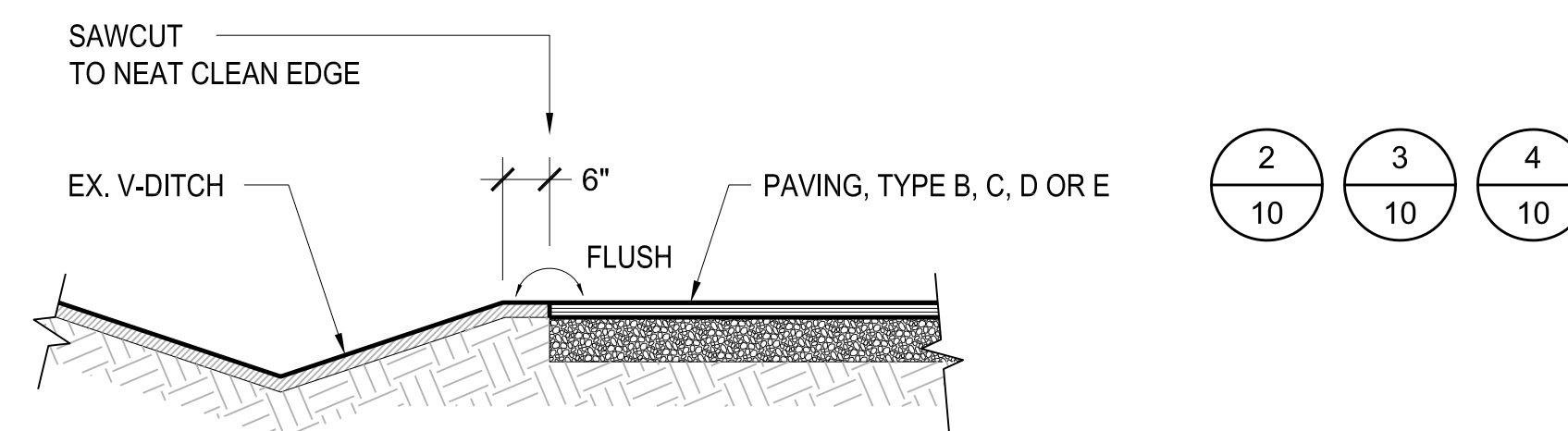
- NOTE**
- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING AC AND BASEROCK. EXISTING SECTION IS APPROXIMATELY 2" AC OVER 4" BASEROCK

**4 AC PAVING, TYPE 'E'**  
SECTION SCALE: 1 1/2" = 1'-0"

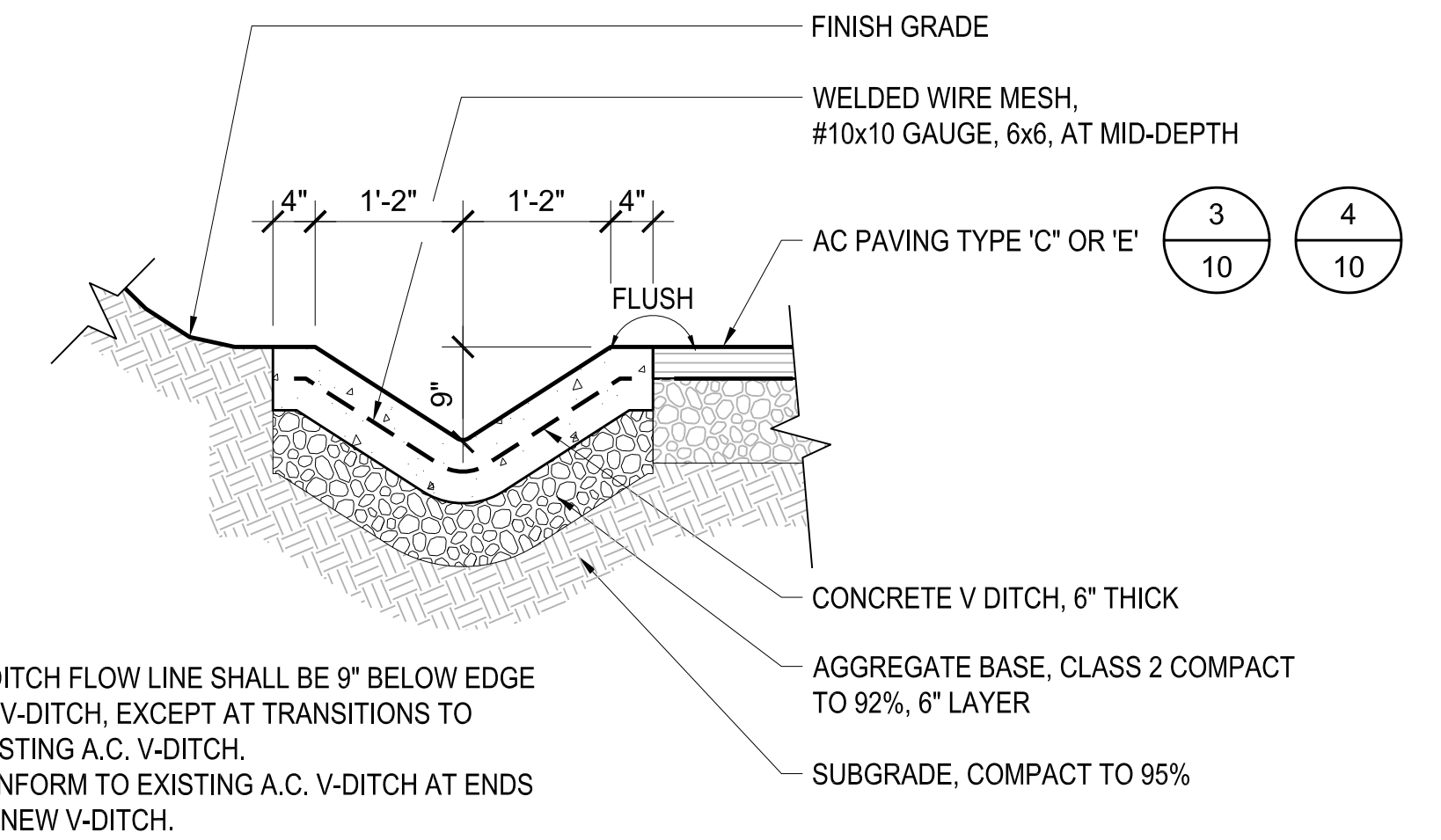


- NOTE:**  
EXISTING AC SHALL BE SWEEP CLEAN PRIOR TO CONSTRUCTION OF OVERLAY

**5 EDGE CONDITION @ EXISTING V-DITCH, TYPE 'A'**  
SECTION SCALE: 1/2" = 1'-0"

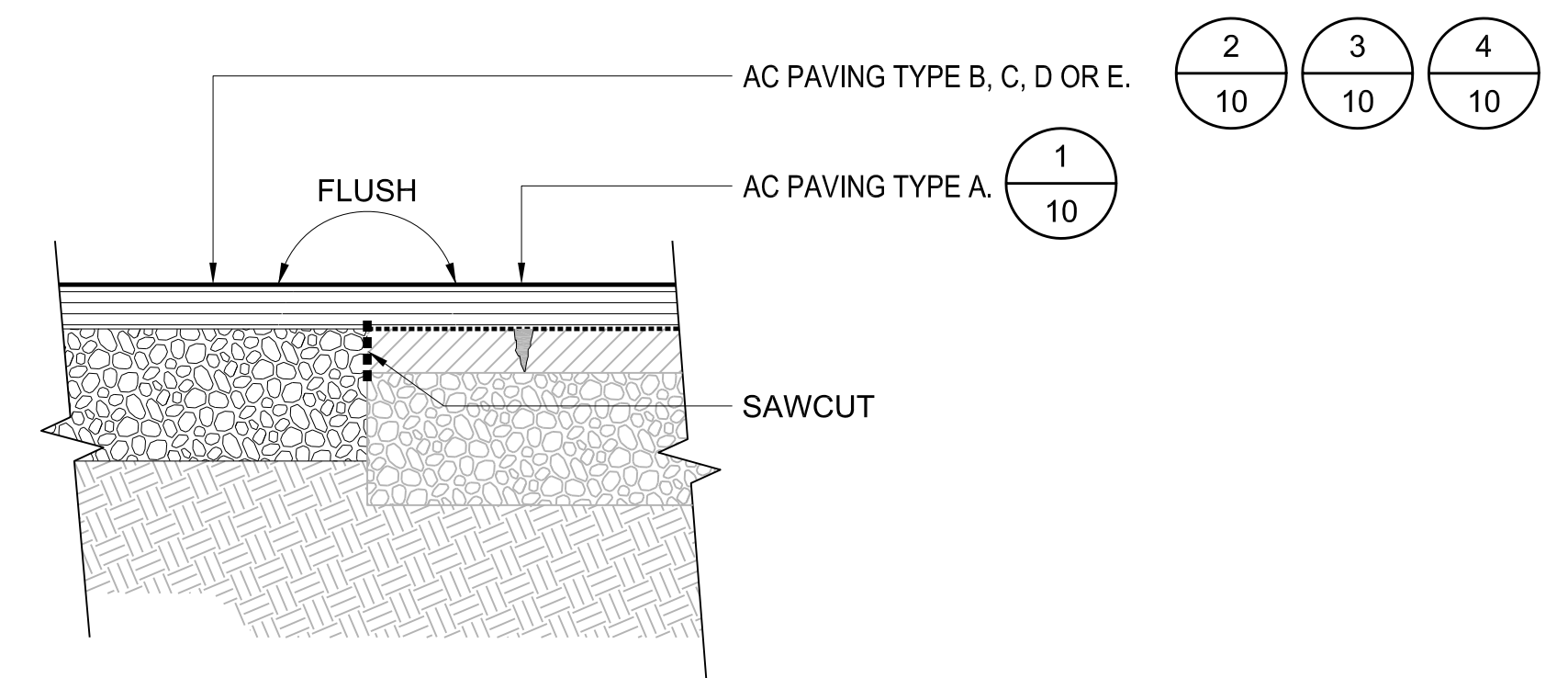


**6 EDGE CONDITION @ EXISTING V-DITCH, TYPE B, C, D OR E.**  
SECTION SCALE: 1/2" = 1'-0"



- NOTES**
- V-DITCH FLOW LINE SHALL BE 9" BELOW EDGE OF V-DITCH, EXCEPT AT TRANSITIONS TO EXISTING A.C. V-DITCH.
  - CONFORM TO EXISTING A.C. V-DITCH AT ENDS OF NEW V-DITCH.

**7 CONCRETE V-DITCH**  
SECTION SCALE: 3/4" = 1'-0"



**8 PAVING TRANSITION**  
LONGITUDINAL SECTION SCALE: 1 1/2" = 1'-0"

|                   |  |
|-------------------|--|
| APPROVED DATE     |  |
| DAVID HOLLAND     |  |
| DIRECTOR OF PARKS |  |

|   |  |
|---|--|
| APPROVED DATE                           |  |
| JAMES C. PORTER                         |  |
| DIRECTOR OF PUBLIC WORKS                |  |
| R.C.E. NO. C 48056 / EXPIRES 12-31-2011 |  |

Crystal Springs Trail Extension South of Highway 92

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San Mateo County Parks Department

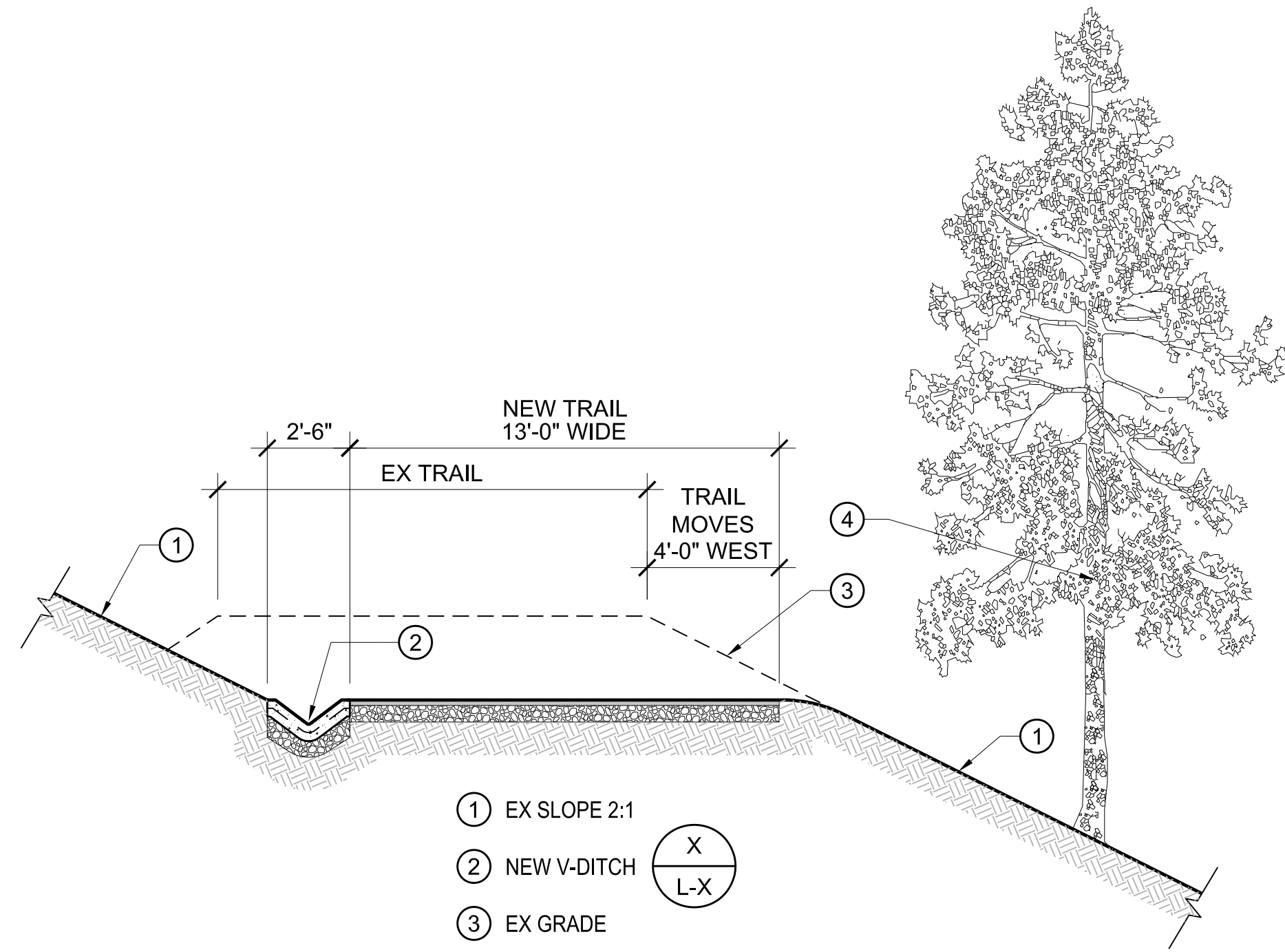
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**HARRIS DESIGN**  
Landscape Architecture  
Park and Recreation Planning  
Urban Design  
755 Folger Avenue  
Berkeley CA 94710  
Tel (510) 647-3792  
Fax (510) 647-3712

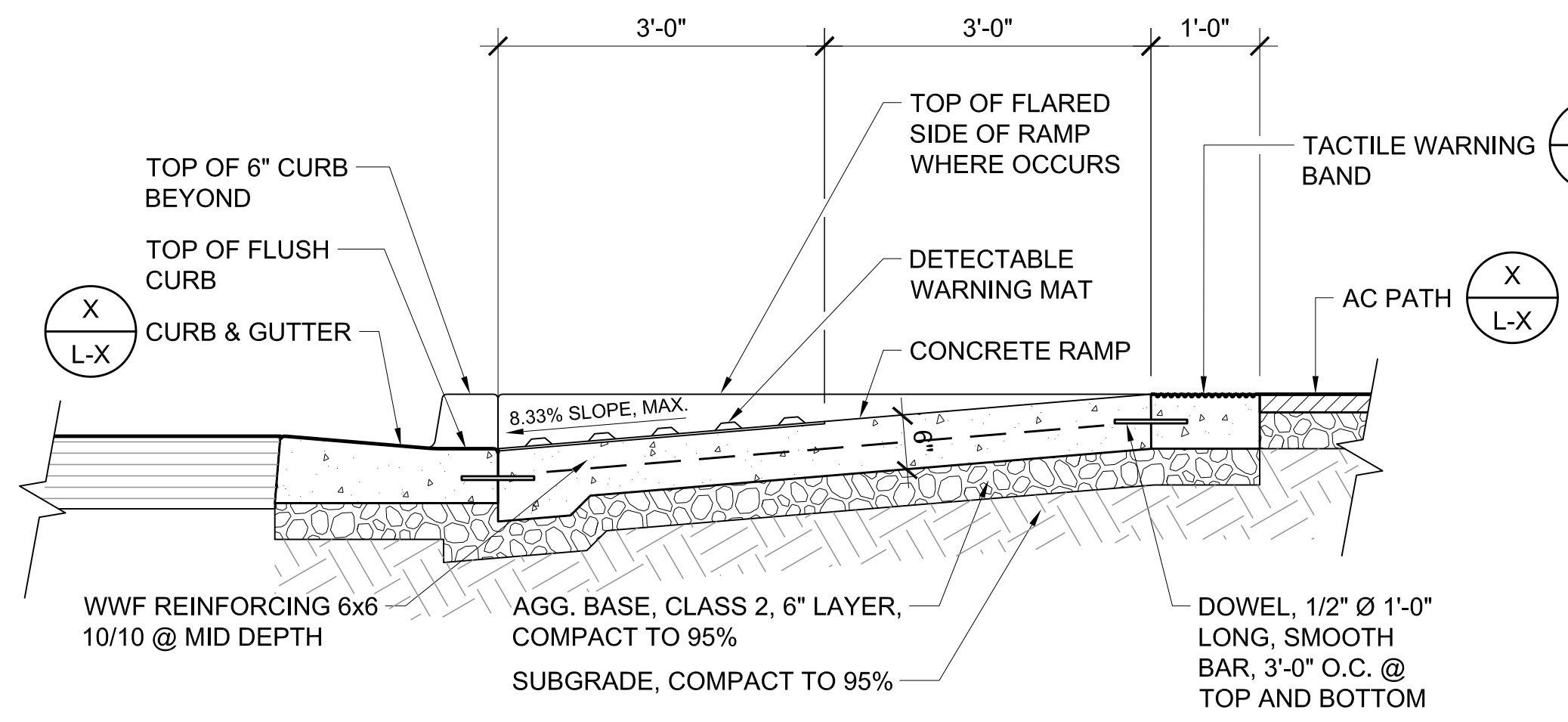
Seals and Signatures

Drawing Title : **CONSTRUCTION DETAILS**  
Date : SEPTEMBER 25, 2009  
Scale : AS NOTED  
Project Number : 08.07  
Sheet Number : **6**  
Sheet Number : 6 of 10

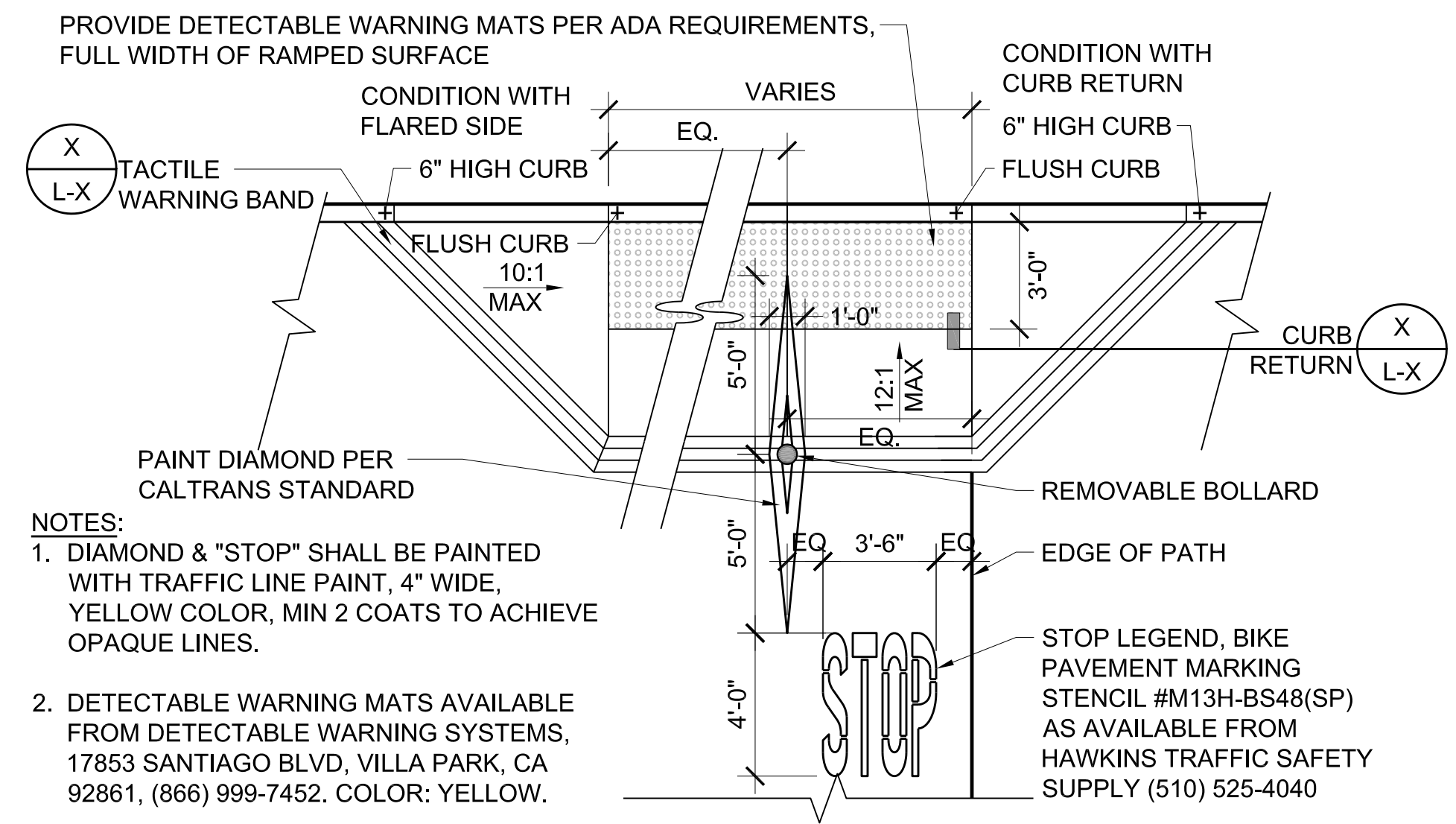
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Checked by : BH



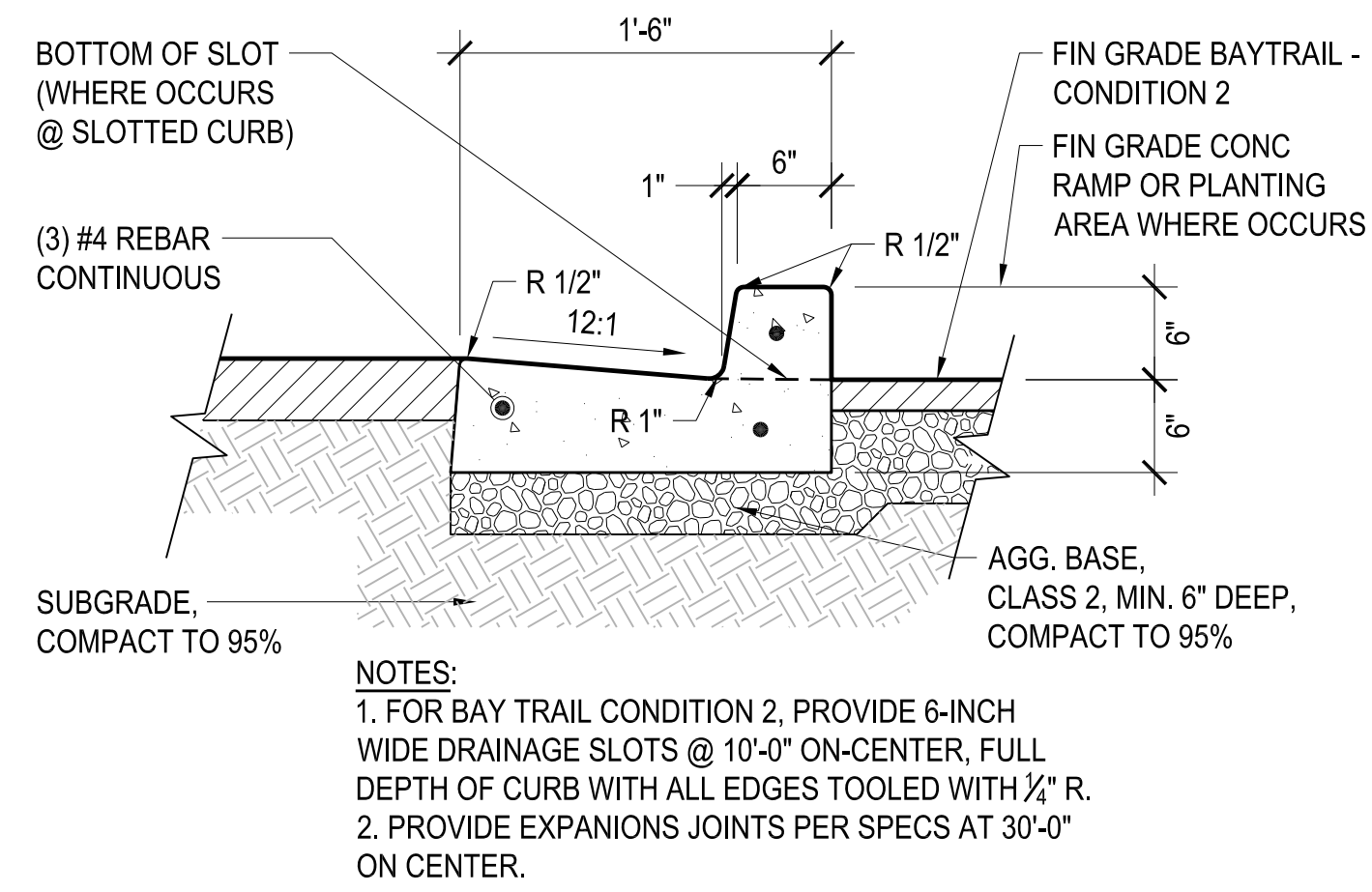
**1 TRAIL STRIPING**  
SECTION SCALE 1/4"=1'-0"



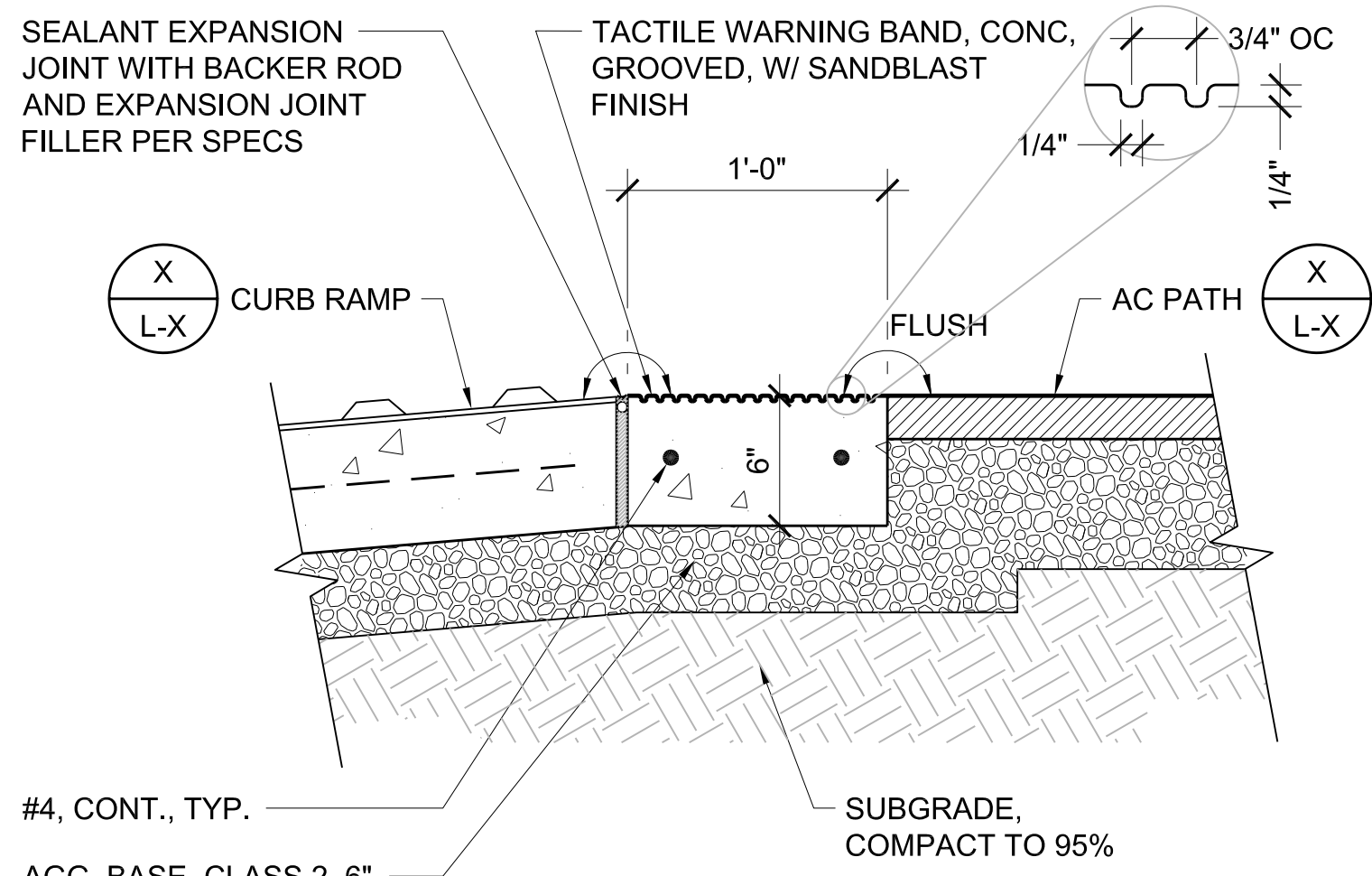
**2 CURB RAMP**  
SECTION SCALE 3/4"=1'-0"



**3 CURB RAMP PLAN**  
PLAN SCALE 1/4"=1'-0"



**4 CONCRETE CURB AND GUTTER**  
SECTION SCALE 1"=1'-0"



**5 TACTILE WARNING BAND**  
SECTION SCALE 1 1/2"=1'-0"

|                   |   |
|-------------------|---|
| APPROVED DATE     | APPROVED DATE                           |
| DAVID HOLLAND     | JAMES C. PORTER                         |
| DIRECTOR OF PARKS | DIRECTOR OF PUBLIC WORKS                |
|                   | R.C.E. NO. C 48056 / EXPIRES 12-31-2011 |

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Drawing Title : **CONSTRUCTION DETAILS**

Date : SEPTEMBER 25, 2009

Scale : AS NOTED

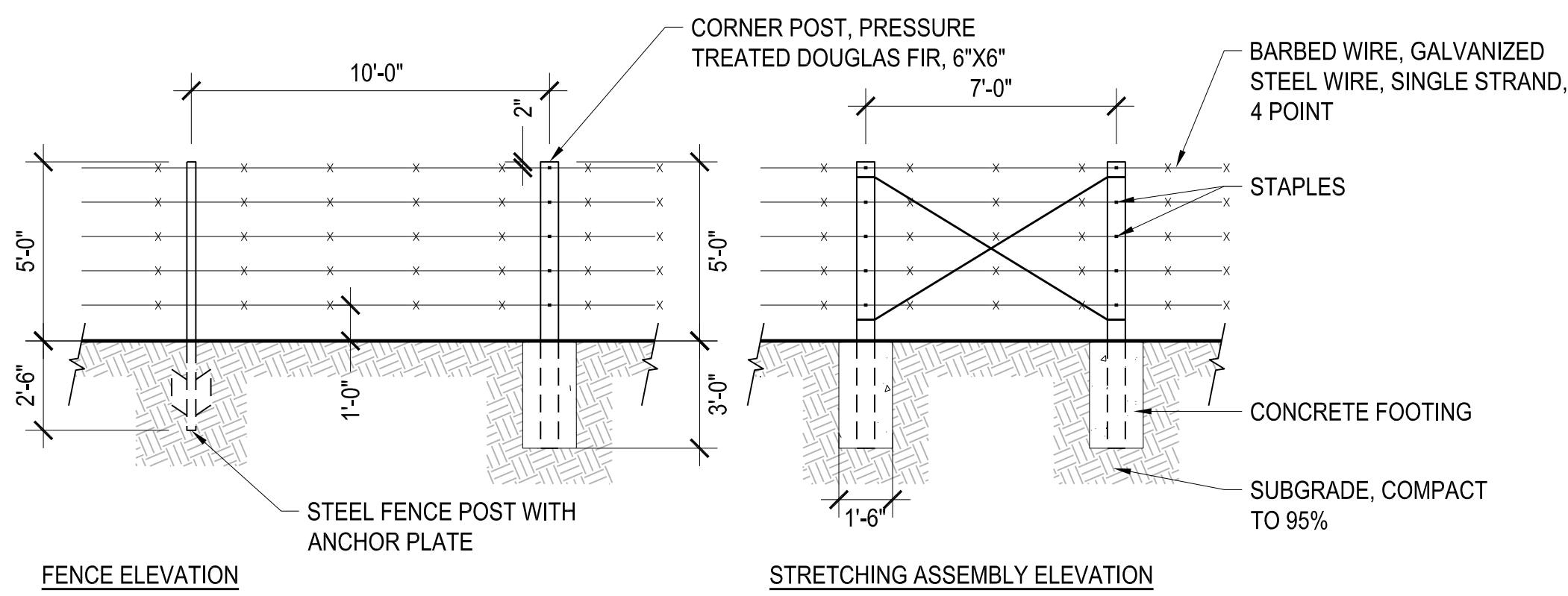
Project Number : 08.07

Sheet Number : **7**

Sheet Number : 7 of 10

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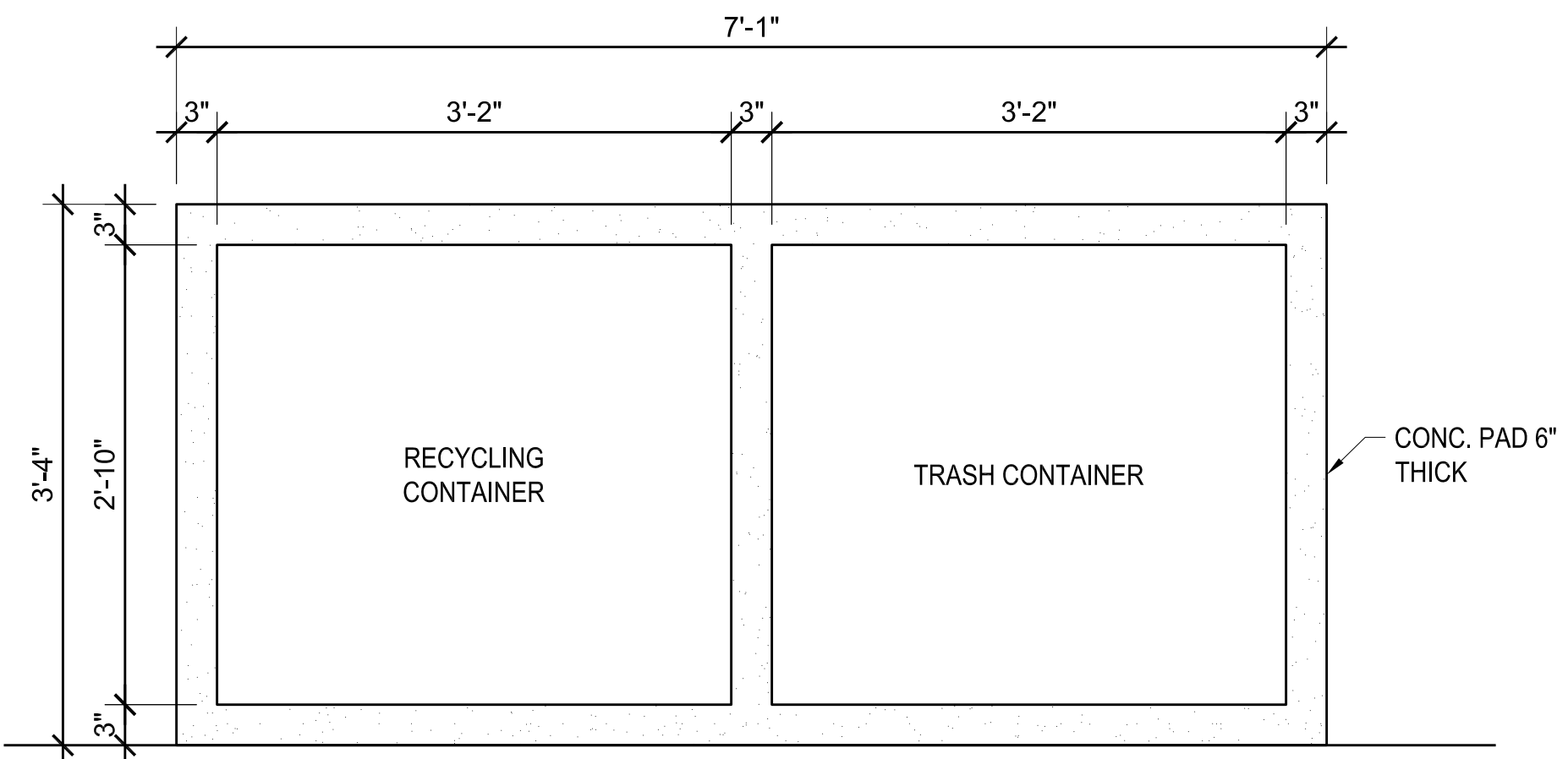
Checked by : BH



- NOTES:  
 1. BARBED WIRE FENCE SHALL CONFORM TO TYPE BW PER CALTRANS STANDARD PLAN A86.  
 2. CORNER POSTS TO BE SET AT ALL CORNERS AND BENDS.  
 3. CORNER TYPE ANCHOR POSTS TO BE SET EVERY 300 FT.  
 4. STRETCHING ASSEMBLIES TO BE INSTALLED EVERY 1000 FT.

**1 BARB WIRE FENCE**

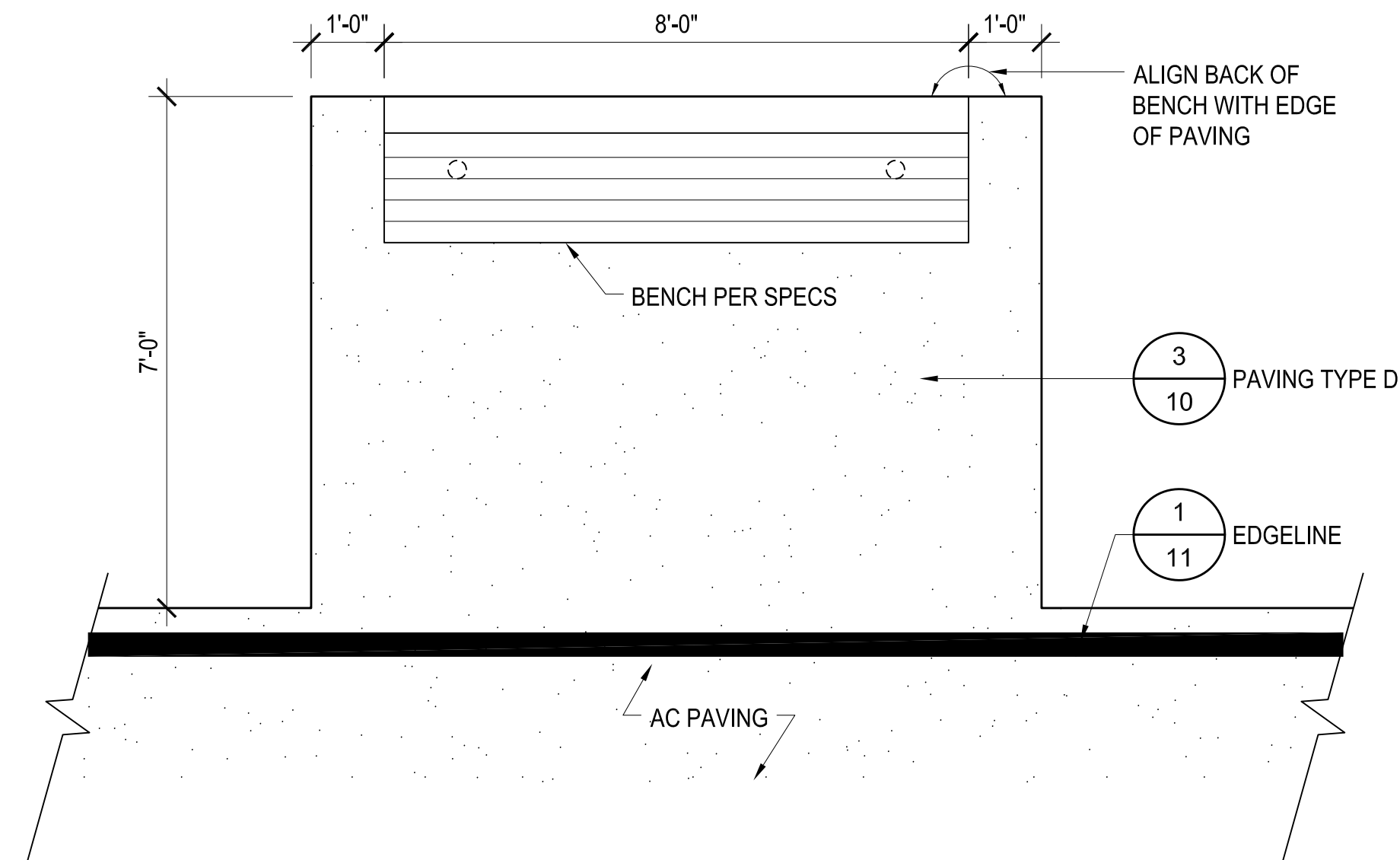
SECTION SCALE 1/4"=1'-0"



- NOTES:  
 1. INSTALL RECEPTACLES PER MANUFACTURER'S RECOMMENDATIONS.  
 2. PROVIDE REBAR AND ANCHOR BOLTS PER MANUFACTURER'S RECOMMENDATIONS.  
 3. THICKEN CONCRETE PAD AS NECESSARY AT BOLT LOCATIONS.

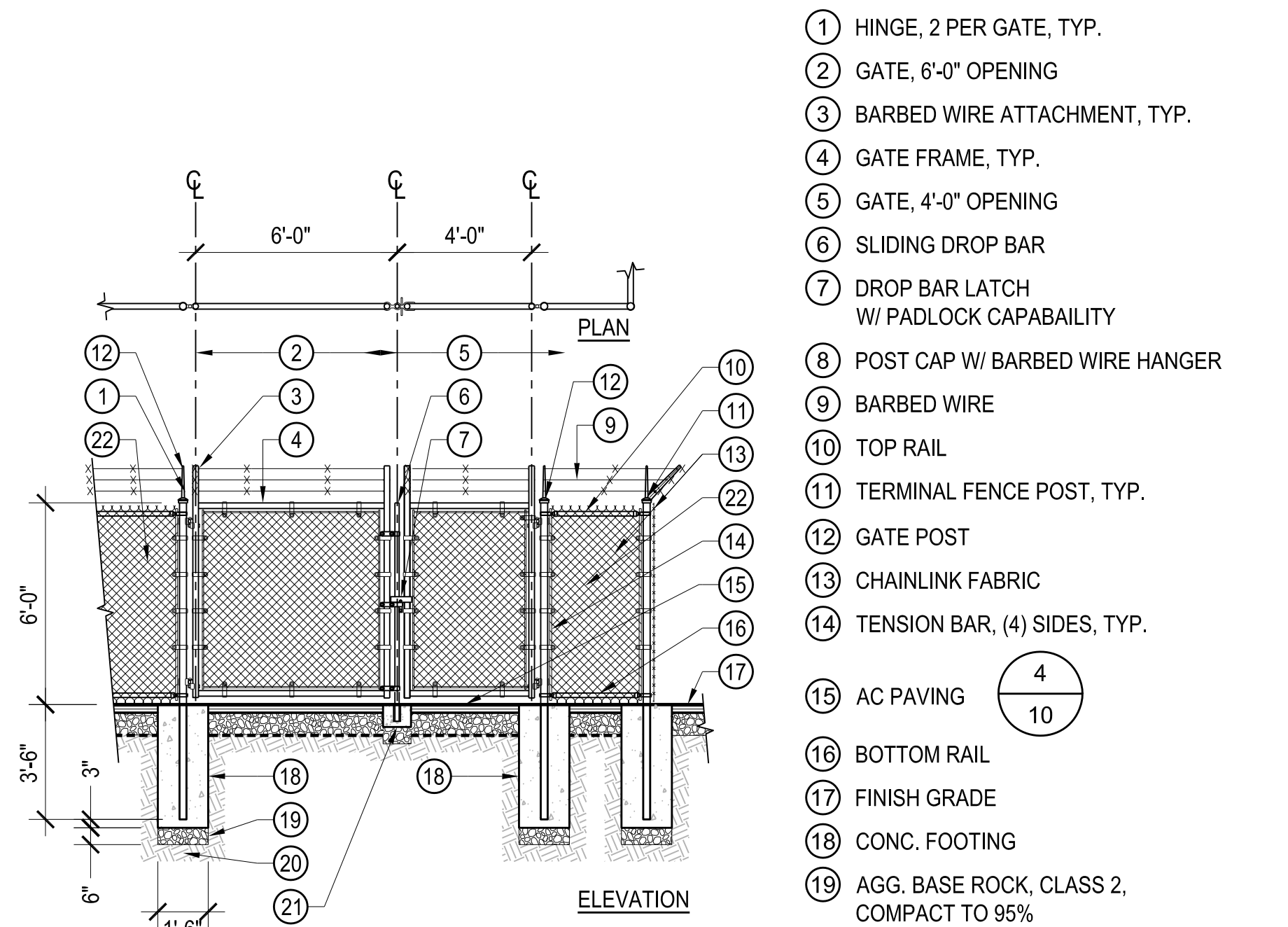
**2 TRASH AND RECYCLING RECEPTACLES - N.I.C.**

PLAN SCALE 1"=1'-0"



**3 BENCH - N.I.C.**

PLAN SCALE 1/2"=1'-0"

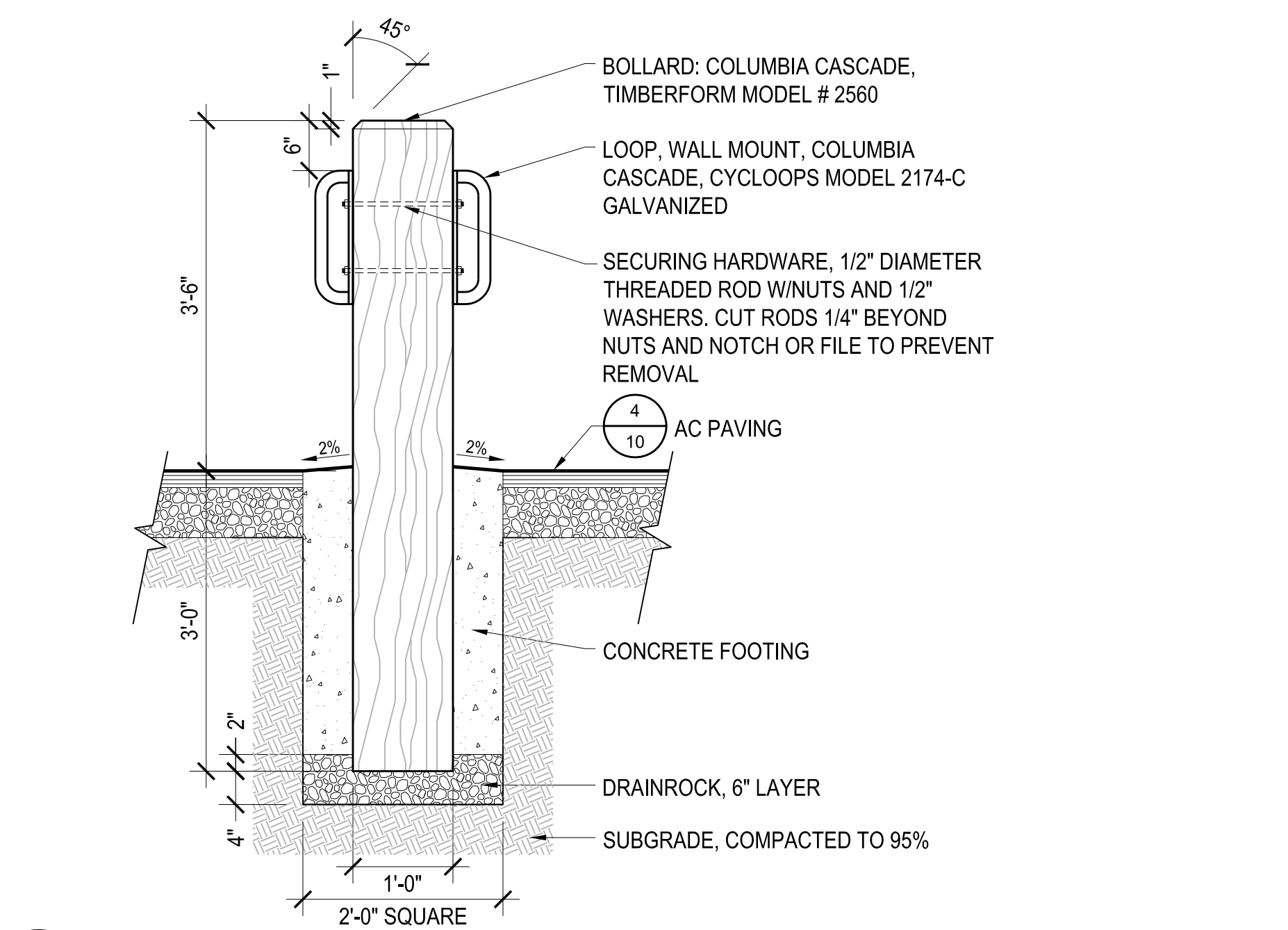


- ① HINGE, 2 PER GATE, TYP.
- ② GATE, 6'-0" OPENING
- ③ BARBED WIRE ATTACHMENT, TYP.
- ④ GATE FRAME, TYP.
- ⑤ GATE, 4'-0" OPENING
- ⑥ SLIDING DROP BAR
- ⑦ DROP BAR LATCH W/ PADLOCK CAPABILITY
- ⑧ POST CAP W/ BARBED WIRE HANGER
- ⑨ BARBED WIRE
- ⑩ TOP RAIL
- ⑪ TERMINAL FENCE POST, TYP.
- ⑫ GATE POST
- ⑬ CHAINLINK FABRIC
- ⑭ TENSION BAR, (4) SIDES, TYP.
- ⑮ AC PAVING (4/10)
- ⑯ BOTTOM RAIL
- ⑰ FINISH GRADE
- ⑱ CONC. FOOTING
- ⑲ AGG. BASE ROCK, CLASS 2, COMPACT TO 95%
- ⑳ SUBGRADE, COMPACT TO 95%
- ㉑ CONC. FOOTING W/ METAL SLEEVE TO RECEIVE DROP BAR, DRILL HOLE TO DRAIN WATER
- ㉒ CYCLONE FENCE (5/11)

NOTE:  
 SEE SPECS FOR SIZES OF GATE MEMBERS

**4 CHAINLINK VEHICLE AND PEDESTRIAN GATE**

SCALE 1/4"=1'-0"



**5 BICYCLE BOLLARD - N.I.C.**

SECTION SCALE 3/4"=1'-0"

|                   |   |
|-------------------|---|
| APPROVED DATE     | APPROVED DATE                           |
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| DIRECTOR OF PARKS | DIRECTOR OF PUBLIC WORKS                |
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 Checked by : BH

Drawing Title :  
**CONSTRUCTION DETAILS**

Date : SEPTEMBER 25, 2009

Scale : AS NOTED

Project Number : 08.07

Sheet Number : **8**

Sheet Number : 8 of 10







**3.0 ENVIRONMENTAL ANALYSIS**

Any controversial answers or answers needing clarification are explained on an attached sheet. For source, refer to pages 11 and 12.

|  | IMPACT |                 |                              |             |            | SOURCE |
|--|--------|-----------------|------------------------------|-------------|------------|--------|
|  | NO     | YES             |                              |             |            |        |
|  |        | Not Significant | Significant Unless Mitigated | Significant | Cumulative |        |
| <b>1. LAND SUITABILITY AND GEOLOGY</b>   |        |                 |                              |             |            |        |
| Will (or could) this project:  |        |                 |                              |             |            |        |
| a. Involve a unique landform or biological area, such as beaches, sand dunes, marshes, tidelands, or San Francisco Bay?          |        |                 | X                            |             |            |        |
| b. Involve construction on slope of 15% or greater?  |        | X               |                              |             |            |        |
| c. Be located in an area of soil instability (subsidence, landslide or severe erosion)?  |        | X               |                              |             |            |        |
| d. Be located on, or adjacent to a known earthquake fault?   |        | X               |                              |             |            |        |
| e. Involve Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts? | X      |                 |                              |             |            |        |
| f. Cause erosion or siltation?   |        | X               |                              |             |            |        |
| g. Result in damage to soil capability or loss of agricultural land?   | X      |                 |                              |             |            |        |
| h. Be located within a flood hazard area?  |        | X               |                              |             |            |        |
| i. Be located in an area where a high water table may adversely affect land use?   | X      |                 |                              |             |            |        |

|   | IMPACT |                 |                              |             |            | SOURCE |
|---|--------|-----------------|------------------------------|-------------|------------|--------|
|   | NO     | YES             |                              |             |            |        |
|   |        | Not Significant | Significant Unless Mitigated | Significant | Cumulative |        |
| j. Affect a natural drainage channel or streambed, or watercourse?  | X      |                 |                              |             |            |        |
| <b>2. <u>VEGETATION AND WILDLIFE</u></b><br><br>Will (or could) this project:   |        |                 |                              |             |            |        |
| a. Affect federal or state listed rare or endangered species of plant life in the project area?   |        |                 | X                            |             |            |        |
| b. Involve cutting of heritage or significant trees as defined in the County Heritage Tree and Significant Tree Ordinance?  |        |                 | X                            |             |            |        |
| c. Be adjacent to or include a habitat food source, water source, nesting place or breeding place for a federal or state listed rare or endangered wildlife species?                          |        |                 | X                            |             |            |        |
| d. Significantly affect fish, wildlife, reptiles, or plant life?  |        |                 | X                            |             |            |        |
| e. Be located inside or within 200 feet of a marine or wildlife reserve?  |        | X               |                              |             |            |        |
| f. Infringe on any sensitive habitats?  |        |                 | X                            |             |            |        |
| g. Involve clearing land that is 5,000 sq. ft. or greater (1,000 sq. ft. within a County Scenic Corridor), that has slopes greater than 20% or that is in a sensitive habitat or buffer zone? |        |                 | X                            |             |            |        |
| <b>3. <u>PHYSICAL RESOURCES</u></b><br><br>Will (or could) this project:  |        |                 |                              |             |            |        |

|   | IMPACT |                 |                              |             |            | SOURCE |
|---|--------|-----------------|------------------------------|-------------|------------|--------|
|   | NO     | YES             |                              |             |            |        |
|   |        | Not Significant | Significant Unless Mitigated | Significant | Cumulative |        |
| a. Result in the removal of a natural resource for commercial purposes (including rock, sand, gravel, oil, trees, minerals or topsoil)?   | X      |                 |                              |             |            |        |
| b. Involve grading in excess of 150 cubic yards?  |        | X               |                              |             |            |        |
| c. Involve lands currently protected under the Williamson Act (agricultural preserve) or an Open Space Easement?  | X      |                 |                              |             |            |        |
| d. Affect any existing or potential agricultural uses?  | X      |                 |                              |             |            |        |
| <b>4. <u>AIR QUALITY, WATER QUALITY, SONIC</u></b>  |        |                 |                              |             |            |        |
| Will (or could) this project:   |        |                 |                              |             |            |        |
| a. Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area? |        | X               |                              |             |            |        |
| b. Involve the burning of any material, including brush, trees and construction materials?  | X      |                 |                              |             |            |        |
| c. Be expected to result in the generation of noise levels in excess of those currently existing in the area, after construction?   |        | X               |                              |             |            |        |
| d. Involve the application, use or disposal of potentially hazardous materials, including pesticides, herbicides, other toxic substances, or radioactive material?                      | X      |                 |                              |             |            |        |
| e. Be subject to noise levels in excess of levels determined appropriate according to the County Noise Ordinance or other standard?   | X      |                 |                              |             |            |        |



|   | IMPACT |                 |                              |             |            | SOURCE |
|---|--------|-----------------|------------------------------|-------------|------------|--------|
|   | NO     | YES             |                              |             | Cumulative |        |
|   |        | Not Significant | Significant Unless Mitigated | Significant |            |        |
| f. Generate noise levels in excess of levels determined appropriate according to the County Noise Ordinance standard?                                       | X      |                 |                              |             |            |        |
| g. Generate polluted or increased surface water runoff or affect groundwater resources?   |        | X               |                              |             |            |        |
| h. Require installation of a septic tank/leachfield sewage disposal system or require hookup to an existing collection system which is at or over capacity? | X      |                 |                              |             |            |        |
| <b>5. <u>TRANSPORTATION</u></b><br><br>Will (or could) this project:  |        |                 |                              |             |            |        |
| a. Affect access to commercial establishments, schools, parks, etc.?  | X      |                 |                              |             |            |        |
| b. Cause noticeable increase in pedestrian traffic or a change in pedestrian patterns?  |        |                 | X                            |             |            |        |
| c. Result in noticeable changes in vehicular traffic patterns or volumes (including bicycles)?  |        | X               |                              |             |            |        |
| d. Involve the use of off-road vehicles of any kind (such as trail bikes)?  | X      |                 |                              |             |            |        |
| e. Result in or increase traffic hazards?   |        | X               |                              |             |            |        |
| f. Provide for alternative transportation amenities such as bike racks?   | X      |                 |                              |             |            |        |

|   | IMPACT |                 |                              |             | SOURCE |            |
|---|--------|-----------------|------------------------------|-------------|--------|------------|
|   | NO     | YES             |                              |             |        |            |
|   |        | Not Significant | Significant Unless Mitigated | Significant |        | Cumulative |
| g. Generate traffic which will adversely affect the traffic carrying capacity of any roadway?   | X      |                 |                              |             |        |            |
| <b>6. <u>LAND USE AND GENERAL PLANS</u></b><br><br>Will (or could) this project:  |        |                 |                              |             |        |            |
| a. Result in the congregating of more than 50 people on a regular basis?  |        | X               |                              |             |        |            |
| b. Result in the introduction of activities not currently found within the community?   | X      |                 |                              |             |        |            |
| c. Employ equipment which could interfere with existing communication and/or defense systems?   | X      |                 |                              |             |        |            |
| d. Result in any changes in land use, either on or off the project site?  |        | X               |                              |             |        |            |
| e. Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?                             | X      |                 |                              |             |        |            |
| f. Adversely affect the capacity of any public facilities (streets, highways, freeways, public transit, schools, parks, police, fire, hospitals), public utilities (electrical, water and gas supply lines, sewage and storm drain discharge lines, sanitary landfills) or public works serving the site? | X      |                 |                              |             |        |            |

|   | IMPACT |                 |                              |             |            | SOURCE |
|---|--------|-----------------|------------------------------|-------------|------------|--------|
|   | NO     | YES             |                              |             | Cumulative |        |
|   |        | Not Significant | Significant Unless Mitigated | Significant |            |        |
| g. Generate any demands that will cause a public facility or utility to reach or exceed its capacity?               | X      |                 |                              |             |            |        |
| h. Be adjacent to or within 500 feet of an existing or planned public facility?                                     | X      |                 |                              |             |            |        |
| i. Create significant amounts of solid waste or litter?   |        | X               |                              |             |            |        |
| j. Substantially increase fossil fuel consumption (electricity, oil, natural gas, coal, etc.)?                      | X      |                 |                              |             |            |        |
| k. Require an amendment to or exception from adopted general plans, specific plans, or community policies or goals? | X      |                 |                              |             |            |        |
| l. Involve a change of zoning?  | X      |                 |                              |             |            |        |
| m. Require the relocation of people or businesses?  | X      |                 |                              |             |            |        |
| n. Reduce the supply of low-income housing?   | X      |                 |                              |             |            |        |
| o. Result in possible interference with an emergency response plan or emergency evacuation plan?                    | X      |                 |                              |             |            |        |
| p. Result in creation of or exposure to a potential health hazard?  | X      |                 |                              |             |            |        |
| <b>7. <u>AESTHETIC, CULTURAL AND HISTORIC</u></b>   |        |                 |                              |             |            |        |
| Will (or could) this project:   |        |                 |                              |             |            |        |

|   | IMPACT |                 |                              |             |            | SOURCE |
|---|--------|-----------------|------------------------------|-------------|------------|--------|
|   | NO     | YES             |                              |             |            |        |
|   |        | Not Significant | Significant Unless Mitigated | Significant | Cumulative |        |
| a. Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?              |        | X               |                              |             |            |        |
| b. Obstruct scenic views from existing residential areas, public lands, public water body, or roads?    | X      |                 |                              |             |            |        |
| c. Involve the construction of buildings or structures in excess of three stories or 36 feet in height? | X      |                 |                              |             |            |        |
| d. Directly or indirectly affect historical or archaeological resources on or near the site?            |        | X               |                              |             |            |        |
| e. Visually intrude into an area having natural scenic qualities?                                       |        | X               |                              |             |            |        |

## EXPLANATION OF ENVIRONMENTAL IMPACTS

### 1. Land Suitability and Geology

*Will (or could) this project:*

#### a. Involve a unique landform or biological area, such as beaches, sand dunes, marshes, tidelands, or San Francisco Bay?

**Significant Unless Mitigated.** Serpentine grasslands are found throughout the project site along the proposed trail corridor. This is a unique soil type and plant association as few non-native plant species can tolerate the low-nutrient, toxic character of serpentine soils. As such, native plant communities typically dominate serpentine areas and serpentine grasslands often serve as a refuge for special status plant species that have been unable to compete with exotics under normal soil conditions.

The area between the SFWD service road and Canada Road where new trail construction/ground disturbance is proposed supports serpentine grassland habitat. Species present here are all herbaceous, aside from occasional coyote brush. Areas of mixed soil types support a greater density of annual grasses (wild oat (*Avena fatua*) is most common), where areas dominated by serpentine soils support a variety of native, serpentine plants. The rare plants that have the potential to be present include white-rayed pentachaeta (*Pentachaeta bellidiflora*), fragrant fritillary (*Fritillaria liliacea*), Marin dwarf flax (*Hesperolinon congestum*), San Mateo wooly sunflower (*Eriophyllum latilobum*), Crystal Springs



lessingia (*Lessingia arachnoidea*), and Crystal Springs fountain thistle (*Cirsium fontinale* var. *fontinale*). In addition, dwarf plantain (*Plantago erecta*), host plant for the federally threatened Bay checkerspot butterfly (*Euphydryas editha bayensis*), is present wherever serpentine soils are present. The Bay Checkerspot butterfly previously existed at Edgewood Park, four miles to the southeast of the project site. The species has not been observed at Edgewood Park since 2003.

As shown in the Project Plans (Figures 4-12 of this document), replacement of existing fencing would be required at the Highway 92 trail entrance and possibly along the newly constructed portion of the trail near Canada Road. Fence removal may require workers to walk through serpentine areas and dig out the existing fence posts. New fence installation would require workers to once again walk through serpentine areas, using old fence postholes where possible but likely also digging new postholes. In addition, grading would occur within serpentine grassland along the 520-foot section of trail that is constructed between the service road and Canada Road. The following mitigation measure would avoid or reduce the impacts to serpentine grasslands to less than significant levels.

**Mitigation Measure BIO-1:** Prior to project construction in serpentine grassland habitat, a rare plant survey will be conducted to determine the presence of rare plants, as defined by the California Native Plant Society or the California Natural Diversity Database. A fence or fences shall be erected around any rare plants found on site to prevent inadvertent damage during trail construction work and/or fence installation. Any plants found that cannot be avoided, should be assessed for possible salvage. If salvage is not possible then the species shall be used in the revegetation of the unofficial trails.

**b. Involve construction on slope of 15% or greater?**

**Not Significant.** The completed trail project, in keeping with the Americans with Disabilities Act of 1991, would not exceed a slope of 8.33%. To avoid exceeding this maximum, two portions of the trail that exceed 8.3% would be re-graded, including a small segment of trail just after it leaves Highway 92 and drops down to the SFWD service road and a 370-foot section that would connect the existing service road to Canada Road.

**c. Be located in an area of soil instability (subsidence, landslide or severe erosion)?**

**Not Significant.** The underlying bedrock at the proposed trail location is classified as serpentinite, greenstone, and sheared rock (mélange) (Brabb et al. 1998), which means that it is relatively stable. The project area is characterized as having “few landslides” by the USGS (1997) and a “very low” susceptibility to liquefaction in the case of a San Andreas Fault Zone earthquake (ABAG 2001). Also, since most of the trail would be installed within an existing road prism, there is little risk that unstable soils would be encountered.

**d. Be located on, or adjacent to, a known earthquake fault?**

**Not Significant.** The San Andreas Fault runs directly under Crystal Springs Reservoir and therefore is located just west of the proposed trail segment (ABAG 2007). The Modified Mercalli Intensity Shaking Severity Level system is used by the Association of Bay Area Governments (ABAG) to describe the intensity of shaking associated with various earthquake scenarios from “very violent” to “light”. Shaking along the

proposed trail segment is characterized predominately as “very violent” if the Peninsula portion, or the entirety of the San Andreas Fault, were to experience a strong earthquake. If the San Andreas Fault in Santa Cruz or north of the Golden Gate were to rupture, shaking at the proposed trail segment would be “moderate” (ABAG 2007).

The National Earthquake Hazards Reduction Program (NEHRP) has defined five soil types based on their shear-wave velocity (Vs). The proposed trail segment is classified under the NEHRP as “c” meaning it includes some Quaternary sands, sandstones and mudstones, some Upper Tertiary sandstones, mudstones and limestone, some Lower Tertiary mudstones and sandstones, and Franciscan melange and serpentinite. Somewhat significant amplification of shaking by these soils is generally expected. The Expansion Index for the proposed trail’s soils was not calculated because the project is not proposing the creation of any new buildings. Since there are no buildings, steep cliffs, or other natural features in the landscape adjacent to the trail that would normally cause serious injury as a result of an earthquake event, the potential impact is considered not to be significant.

**e. Involve Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?**

**No Impact.** The soils mentioned in item d. above are not conducive to agricultural production.

**f. Cause erosion or siltation?**

**Not Significant.** Construction of the 0.9-mile trail segment would take place entirely within unincorporated San Mateo County. This project is being prepared to County Department of Public Works (DPW) design standards as a biddable project. No Building or Grading Permit will be secured. The County Watershed Protection Maintenance Standards will be met. The majority of the trail will take place on the existing SFWD road, and the only place that the project will disturb native soil is the new path leading from the SFWD road to Canada Road. In this area, a total of 15,400 square feet (0.35 acre) of native soil will be disturbed. Therefore, since the project will not disturb more than 1 acre, no construction permit will be required from the San Francisco Bay Regional Water Quality Control Board.

The existing pavement would be removed, the road and adjacent shoulder would be re-graded, and then resurfaced with asphaltic concrete. The existing road has strategically placed culverts and a v-shaped ditch along the uphill side of the road to control the movement of water and thus minimize erosive impacts. A visual inspection of the roadway found no evidence of significant erosion. Since the new trail would be almost exclusively placed in the footprint of the existing road, little change in erosion potential is expected. In addition, the trail design includes the preservation or reconstruction of culverts and v-shaped ditches along the roadway.

Erosion control during construction will be accomplished with coir rolls and other methods as appropriate, to be determined at the time the contractor prepares the SWPPP. Permanent erosion control measures will consist of hydroseeding with native grasses and forbs. The hydroseed process will include a standard mulch slurry material.

A 520-foot length of new trail would be constructed through undisturbed grassland. Short-term, construction-related erosion and/or siltation could occur during construction of this trail section. The San Mateo County Public Works Department has created the following list of conservation

principles that would be integrated into a system of control measures and management techniques to control erosion and reduce off-site sediment:

- Minimize the extent and duration of exposure: Schedule construction activities to minimize the exposed area and the duration of exposure. Stabilize disturbed areas as quickly as possible.
- Protect areas to be disturbed from stormwater runoff: Use berms, diversions, pumps, and barriers to intercept runoff and divert it away from excavations and other disturbed areas. Install these measures before beginning maintenance activities.
- Stabilize disturbed areas: Removing the vegetative cover and altering the soil structure by clearing the surface increase an area's susceptibility to erosion. Apply stabilizing measures after the land is disturbed and implement temporary or permanent vegetation, mulches, or other CMPs to correspond with maintenance activities. During the winter season, November through April, no soils shall remain exposed and unworked for more than 2 days. During the summer season, May through October, no soils shall remain exposed and unworked for more than 7 days. This condition applies to all soils on site, whether at final grade or not.
- Minimize runoff velocities: Clearing existing vegetation reduces the surface roughness and infiltration rate and thereby increases runoff velocities and volumes. Use measures that break the slopes to reduce the problems associated with concentrated flow volumes and runoff velocities.
- Retain sediment on the site: Even with careful planning some erosion is unavoidable. The resulting sediment must be trapped on the site. Plan the location where sediment deposition will occur and maintain access for cleanout.
- Inspect and maintain control measures: Inspection and maintenance are vital to the performance of erosion and sedimentation BMPs. Failure of a BMP may be hazardous or damaging to roadway infrastructure, habitat, people and/or property. It is essential to inspect all BMPs to ensure that they are working properly and to ensure that problems are corrected as soon as they develop.

**g. Result in damage to soil capability or loss of agricultural land?**

**No Impact.** This project would not result in damage to soil capability or cause the loss of agricultural land as no agricultural land is within the project area.

**h. Be located within a flood hazard area?**

**Not Significant.** Lower Crystal Springs Reservoir, and the area surrounding it, is labeled as "Zone D" on the Federal Insurance Rate Map (NFIP 2009). Zone D areas are those of undetermined, but possible, flood hazard. The elevation of the spillway on Lower Crystal Springs Reservoir is 284 feet (NFIP 2009). Because the entirety of the project site is located above 325 feet in elevation (see project plans) and the proposed project does not include the building of permanent structures that may put human life or property at risk, the potential impacts from flooding are considered not to be significant.

**i. Be located in an area where a high water table may adversely affect land use?**

**No Impact.** This proposed trail segment is not located in an area where a high water table may affect land use.

**j. Affect a natural drainage channel or streambed, or watercourse?**

**No Impact.** No watercourses cross the existing SFWD service road (USGS Quad San Mateo) or the section of new trail to be construction through grassland. There are no blue-line (perennial) streams within the project area.

**2. Vegetation And Wildlife**

*Will (or could) this project:*

**a. Affect federal or state listed rare or endangered species of plant life in the project area?**

**Significant Unless Mitigated.** No federal or state listed plant species have the potential to occur within the project area nor were any found during rare plant surveys conducted by TRA Senior Biologist Autumn Meisel (see Appendix A for memo detailing rare plant survey efforts). However, the following rare plant species, as defined by the California Native Plant Society (CNPS), have identified as having potential to occur within the project area based on habitat requirements, species range, and known, historical occurrences: white-rayed pentachaeta (*Pentachaeta bellidiflora*, CNPS 1B.1), Marin dwarf flax (*Hesperolinon congestum*, CNPS 1B.1), fragrant fritillary (*Fritillaria liliacea*, CNPS 1B.2), San Mateo wooly sunflower (*Eriophyllum latilobum*, CNPS 1B.1), Crystal Springs lessingia (*Lessingia arachnoidea*, CNPS 1B.2) and Crystal Springs fountain thistle (*Cirsium fontinale* var. *fontinale*, CNPS 1B.1). Of these identified rare plants, only the Crystal Springs lessingia was found to occur within the project site.

Crystal Springs lessingia is common within the project site and was found to be dominant in areas of serpentine soils, including those areas that would be disturbed for the creation of the 520-foot section of new trail. Crystal Springs lessingia is a CNPS 1B.2 plant. List 1B.2 plants are rare throughout their range, generally endemic to California, and fairly threatened in California (CNPS 2009). Implementation of Mitigation Measure BIO-1 included in 1.a. above, and BIO-2 listed below would avoid or reduce project impacts to Crystal Springs lessingia to less than significant levels.

**Mitigation Measure BIO-2:** The revegetation project shall include the use of topsoil taken from the trail construction area. This soil, which includes Crystal Springs lessingia and other native plant seeds, should be scraped from the serpentine area and then be placed on top of the rototilled soil of the former compacted, degraded unofficial trail sites.

**b. Involve cutting of heritage or significant trees as defined in the County Heritage Tree and Significant Tree Ordinance?**

**Significant Unless Mitigated.** Demolition of the existing roadways and construction of the proposed trail segment would create the need to cut down trees within 2 feet of the existing roadway. As stated in the Project Description of this document, five trees will be removed and four trees will be pruned. The trees to be removed include a 6" pine, 8" oak, 5" pine, 16" oak and 3" pine. The trees to be pruned include a 6" oak, 10" oak, 9" oak, and a 36" multi-trunk oak. All measurements are at Diameter at Breast Height (DBH). In addition, branches that hang over the trail would be pruned on two coast live oaks, one on Highway 92 and one along the existing service road. None of the trees proposed for removal are



“significant” or “heritage” trees as defined by County of San Mateo Ordinance Sections 11,000 and 12,000. In order to mitigate the impact of the loss of native trees, the following mitigation measure is recommended:

**Mitigation Measure BIO-3:** The County of San Mateo shall replace any coast live oaks, or other native trees or shrubs removed during project construction at a ratio of 1:1, using 5 or 15-gallon, nursery grown coast live oak trees as replacements. All trees shall be planted along the trail segment corridor under the direction of San Mateo County Department of Parks staff.

**c. Be adjacent to or include a habitat food source, water source, nesting place or breeding place for a federal or state listed rare or endangered wildlife species?**

**Significant Unless Mitigated.** Two listed species, the California red-legged frog (*Rana draytonii*, Federal Threatened, State Candidate) and San Francisco garter snake (*Thamnophis sirtalis tetrataenia*, State and Federal Endangered) have potential to occur in the vicinity of the project area. California red-legged frog and San Francisco garter snake have been recorded in the Crystal Springs Reservoir (CNDDDB 2009; USFWS 2006). The project area itself includes upland habitat along and adjacent to an existing road. Upland habitat adjacent to aquatic features is an important habitat component for both red-legged frog and SF garter snake. The project site at its nearest proximity is approximately 225 feet from the edge of the reservoir. The average distance of the project site to the reservoir is 400 feet. The project area does not support breeding habitat for either of these species. Due to the location of Highways 92 and 280 just east of the project area, the likelihood of these species moving from the reservoir and crossing through the project area is small as there is no suitable destination for these species east of the project area. However, there is a small potential for these species to utilize upland habitat within or adjacent to the project area. The majority of the project site within which construction is proposed is already paved or is within close proximity to trails used recreationally, thus the potential for use by CA red-legged frog or SF garter snake is extremely low. Construction activities may impact upland habitat in those areas where the existing footprint of the road will be widened by two feet, particularly in those areas located on the west side (downslope to the reservoir) of the existing road.

Therefore, Mitigation Measures BIO-4, BIO-5 and BIO- 6 would avoid or reduce project impacts to California red-legged frog and San Francisco garter snake to less than significant levels.

**Mitigation Measure BIO-4:** Project construction shall be limited to the dry season (June 1- November 1) when California red-legged frog and SF garter snake are highly unlikely to be moving to and from aquatic sites.

**Mitigation Measure BIO-5:** All construction staff shall receive training from a qualified biologist on identification, avoidance, and project measures and conditions related to California red-legged frog and San Francisco garter snake. Staff shall not begin work on the project until the training has been completed.

**Mitigation Measure BIO-6:** A qualified biologist shall conduct a pre-construction survey of the project area prior to the start of work. In addition, daily monitoring of the site in the morning prior to the start of work will be conducted at the discretion of the biologist. Work within the

open, serpentine grassland would not require a monitor, while trail work along the existing road in the vicinity of willows and other wetland vegetation would require daily monitoring prior to any vegetation removal.

**d. Significantly affect fish, wildlife, reptiles, or plant life?**

**Significant Unless Mitigated.** Aside from the issues listed above, the project would not result in any significant effect to fish, wildlife, or reptiles. The majority of the project is within or alongside an existing road. The project is not within an aquatic area and would not result in erosion or run-off, and thus fish would not be affected by the project. Wildlife, including reptiles, California red-legged frog, and San Francisco garter snake may be temporarily impacted during construction due to presence in the area, noise disturbance and ground vibration. With the implementation of the Mitigation Measures BIO-4, BIO-5, and BIO-6, no temporary construction-related impacts are expected. No permanent impacts are expected after the construction phase has been completed.

Some plant life will be permanently impacted by the expansion of the existing road. Areas of temporary disturbance will be restored with native seeds. In addition, existing trails that are not official will be closed and restored. Mitigation for impacts to Crystal Springs lessingia is described under Mitigation Measures BIO-1 and BIO-2 above.

**e. Be located inside or within 200 feet of a marine or wildlife reserve?**

**Not Significant.** The proposed trail extension would be located on San Francisco Water Department watershed lands. The watershed acts as a wildlife reserve and is monitored by the California Department of Fish and Game. In order to prevent trespass into the watershed, fencing would be placed parallel to the trail, on both the upslope and downslope sides, to ensure trail use is restricted to permitted areas.

**f. Infringe on any sensitive habitats?**

**Significant Unless Mitigated.** As discussed above in Section 2.a and 2.b, serpentine areas surround the proposed trail segment and have the potential to be impacted by temporary construction and permanent operational activities related to the proposed trail segment. Permanent impacts would be minimized through the use of an exclusionary fence that would keep trail users on the trail and out of sensitive serpentine habitat and other watershed lands. Furthermore, as stated in the Project Description section of this document, the project includes restoration of approximately 0.35 acre of disturbed serpentine grassland, which could result in a net gain of serpentine grassland. Finally, Mitigation Measure BIO-1, discussed above in Section 1.a., minimizes construction-related impacts on a sensitive serpentine plant a less than significant level.

**g. Involve clearing land that is 5,000 sq. ft. or greater (1,000 sq. ft. within a County Scenic Corridor), that has slopes greater than 20% or that is in a sensitive habitat or buffer zone?**

**Significant Unless Mitigated.** Construction of the proposed trail would require the clearing, grading, and paving of 15,400 square feet of serpentine grassland. Of this only 4,800 square feet (0.11 acre) would be permanently disturbed. Slopes in this area are less than 20%.

Furthermore, the project includes restoration of approximately one-half acre of disturbed serpentine grassland, which would result in a net gain of serpentine grassland. Mitigation Measure BIO-1, discussed above in Section 1.a, minimizes or avoids construction-related impacts to a sensitive serpentine plant to less than significant levels.

### 3. Physical Resources

*Will (or could) this project:*

**a. Result in the removal of a natural resource for commercial purposes (including rock, sand, gravel, oil, trees, minerals or topsoil)?**

**No Impact.** The proposed trail project would not remove any natural resource (e.g., rock, sand, gravel, oil, trees, minerals or topsoil) for commercial purposes.

**b. Involve grading in excess of 150 cubic yards?**

**Not Significant.** The project involves removing 184 cubic yards of material, including 31 cubic yards of asphalt and base rock, and 65 cubic yards of subgrade soils on the existing service road. It also involves the removal of 88 cubic yards of existing soil at the new southern connection to Canada Road. As stated in the Project Description section of this document, this project is being prepared to County Department of Public Works (DPW) design standards as a biddable project. No Building or Grading Permit will be secured. The County Watershed Protection Maintenance Standards will be met. The majority of the trail will take place on the existing SFWD road, and the only place that the project will disturb native soil is the new path leading from the SFWD road to Canada Road. In this area, a total of 15,400 square feet (0.35 acre) of native soil will be disturbed. Therefore, since the project will not disturb more than 1 acre, no construction permit will be required from the San Francisco Bay Regional Water Quality Control Board.

**c. Involve lands currently protected under the Williamson Act (agricultural preserve) or an Open Space Easement?**

**No Impact.** The site is not protected under the Williamson Act, nor are any portions of the site in an Open Space Easement. A recreational easement was assigned to the trail segment by the SFPUC in order to allow recreational use the public.

**d. Affect any existing or potential agricultural uses?**

**No Impact.** The project area is not currently used for agriculture nor does it support appropriate soils suitable for agricultural production or use.

#### 4. Air Quality, Water Quality, Sonic

*Will (or could) this project:*

- a. **Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area?**

**Not Significant.** Construction of the 0.9-mile trail segment would generate temporary, construction-related emissions of Criteria Air Pollutants and Greenhouse Gases in the form of dust from grading and ground clearing activities and diesel fuels from heavy equipment use. The proposed Crystal Spring Trail would not generate any long-term emissions. The Bay Area Air Quality Management District (BAQMD) regulates short-term, construction-related activities as they pertain to air quality. The BAAQMD sets forth thresholds of significance for construction-related activities in the form of Best Management Practices (BMPs) for Criteria Air Pollutants and Precursors and Greenhouse Gases (BAAQMD 2009). The County of San Mateo would strictly apply all of the BMPs listed in Section 2.5.1 above through the inclusion of these BMPs in the construction specifications, therefore, the impacts to local air quality are not considered significant (BAAWMD 2009).

- b. **Involve the burning of any material, including brush, trees and construction materials?**

**No Impact.** The proposed project would not involve the burning of any material, including brush, trees, or construction material.

- c. **Be expected to result in the generation of noise levels in excess of those currently existing in the area, after construction?**

**Not Significant.** Upon completion of the construction, the proposed trail would support an increased number of visitors using the area for recreation. This could slightly increase background noise levels in the area of the trail. However, given the proximity of the trail to Highways 92 and 280, and the fly-over traffic from the San Francisco International Airport, existing background noise is expected to far exceed any noise generated by the bicyclists, hikers, and joggers using the trail.

- d. **Involve the application, use or disposal of potentially hazardous materials, including pesticides, herbicides, other toxic substances, or radioactive material?**

**No Impact.** With the exception of the use of asphaltic oil in the paving of the roadbed, the project would not involve the application, use, or disposal of potentially hazardous materials. The asphaltic oil would have been premixed in the asphaltic concrete and contained in a haul truck, therefore, the likelihood of a spill is remote.

- e. **Be subject to noise levels in excess of levels determined appropriate according to the County Noise Ordinance or other standard?**



**No Impact.** Although the trail is near major highways and is subject to aircraft overflight, the proposed project would not expose trail users to noise levels that exceed noise standards of the County of San Mateo's Noise Ordinance (2715) for the type of use proposed.

**f. Generate noise levels in excess of levels determined appropriate according to the County Noise Ordinance standard?**

**No Impact.** The proposed trail would increase noise levels during construction, however, there are no sensitive receptors in the vicinity of the project area that would be affected by the temporary increased noise levels. Furthermore, the project would not generate permanent noise levels that exceed noise standards of County of San Mateo's Noise Ordinance (2715).

**g. Generate polluted or increased surface water runoff or affect groundwater resources?**

**Not Significant.** The proposed trail would result in the creation and or replacement of approximately 47,520 square feet (0.9 miles of 10 foot-wide trail) of impervious surface. The proposed project would result in a total of 55,528 square feet of temporary ground disturbance (0.9 miles of 10 foot-wide trail plus four total feet of rock shoulder). In order to minimize the short-term and long-term water quality and runoff impacts to less than significant levels, the County of San Mateo must meet or exceed those requirements set forth in the Municipal Regional Stormwater NPDES Permit (BARWQCB 2007). These requirements include: 1.) Implementing construction site BMPs; 2.) Filing a Notice of Intent with the State Water Quality Control Board; 3.) Creating a site-specific Stormwater Pollution Prevention Program; and 4.) Complying with Provision C.3 of the Municipal Regional Stormwater NPDES permit. The County fully intends to meet all of the requirements of the BARWQCB for this project. The requirements will be set forth in the construction specifications for the project. For a full explanation of the regulatory framework and compliance requirements of the San Mateo Countywide NPDES permit, see Section 2.5.2.

**h. Require installation of a septic tank/leach field sewage disposal system or require hookup to an existing collection system which is at or over capacity?**

**No Impact.** The restroom facility planned for the project would be a self-contained vault toilet that does not require a new septic tank/leach field or sewage disposal system (See Sheet 4).

**5. Transportation**

*Will (or could) this project:*

**a. Affect access to commercial establishments, schools, parks, etc.?**

**No Impact.** The proposed trail project would not affect access to any commercial establishments, schools, parks or any other facility. The SFWD service road would continue to be used by the SFPUC for access to the Watershed as needed.

**b. Cause noticeable increase in pedestrian traffic or a change in pedestrian patterns?**

**Significant Unless Mitigated.** The proposed trail segment is likely to increase pedestrian traffic between the parking area at the intersection of Highway 92 and Skyline Boulevard and the trailhead alongside Highway 92, as well as along Canada Road, where pedestrians would cross Canada Road to access the Ralston Trail trailhead. In order to reduce potential safety hazards on pedestrians the following mitigation measure is recommended:

**Mitigation Measure TRAF-1.** The County of San Mateo shall consult with the County and Caltrans traffic engineers to determine the best methods for preventing pedestrian safety hazards related to the road crossings. Such methods may or may not include: installing painted crosswalks, use of visual and audible countdown pedestrian lights, pedestrian light controls, or flashing pedestrian crosswalk lights, and installing pedestrian signs at critical intersections or crossings.

**c. Result in noticeable changes in vehicular traffic patterns or volumes (including bicycles)?**

**Not Significant.** Although the creation of a new trail is likely to slightly increase vehicular and bicycle traffic above existing conditions, it is not expected to exceed the vehicular or parking capacity of Highway 92 or Canada Road. It should also improve safety for bicyclists, as some recreationists will be able to use the trail instead of traveling on Canada Road.

**d. Involve the use of off-road vehicles of any kind (such as trail bikes)?**

**No Impact.** Off-road vehicle use would not be allowed on the trail.

**e. Result in or increase traffic hazards?**

**Not Significant.** The only potentially significant traffic hazard created by this project is the increase in pedestrian crossings at Highway 92 and Canada Road. See Mitigation Measure TRAF-1 above for more information. The only other potential traffic hazard is the increase in pedestrian traffic alongside Highway 92, between Skyline Boulevard and where the trail veers away from the road. As part of the project design, protective k-railing would be placed at Highway 92 along the portion of the trail that is adjacent to the road. All other hiking and bicycling traffic would be set away from the road and would not pose any additional traffic hazard. With the installation of the k-rail, the potential for traffic hazards are not considered significant.

**f. Provide for alternative transportation amenities such as bike racks?**

**No Impact.** Since there are no trailhead features and or amenities proposed, no bicycle racks are necessary.

**g. Generate traffic which will adversely affect the traffic carrying capacity of any roadway?**

**No Impact.** Although the creation of this new trail segment may slightly increase vehicular traffic to the area, none of the major roads in the area are at or near carrying capacity and therefore this potential impact is not considered significant. Furthermore, most traffic generated by the project would occur on weekends when traffic levels are typically lower.

**6. Land Use and General Plans**

*Will (or could) this project:*

**a. Result in the congregating of more than 50 people on a regular basis?**

**Not Significant.** Congregations of 50 or more people are possible along this 0.9-mile reach of trail, particularly on weekends. However, since this is a through trail with no picnic areas suitable for large groups or organized special events, people would only congregate for short periods of time, if at all.

**b. Result in the introduction of activities not currently found within the community?**

**No Impact.** All of the activities that are allowed on the new trail segment would be those that are already allowed on the adjacent trail segments.

**c. Employ equipment which could interfere with existing communication and/or defense systems?**

**No Impact.** The rehabilitation of the existing SFWD service road as a recreational trail and the construction and use of the new trail segment connecting the SFWD service road to Canada Road would not employ any equipment that could interfere with existing communication or defense systems. Traditional construction equipment would be used including backhoes and dumptrucks.

**d. Result in any changes in land use, either on or off the project site?**

**Not Significant.** The new trail segment would not change any land uses as the area is already used heavily by bicyclists and lightly by hikers and walkers. However, the new trail segment would expand the regional trail system in the area, so it may bring in more recreationalists. Since this trail segment is only 0.9 miles long and does not offer any picnic facilities or other gathering places, the project would not create a significant change in land use.

**e. Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?**

**No Impact.** The trail traverses an area currently owned by SFWD and managed for water storage. Directly to the west of the trail corridor is Lower Crystal Springs Reservoir and to the east is Canada Road and State Highway 280. Although a recreational trail is an appropriate use for these lands, urban development is not. The trail project does not require the expansion of public utilities that could accommodate additional changes in land use, particularly new development. As stated above, the area currently accommodates recreational activities, so use of the proposed trail is not a new use of the area.

- f. Adversely affect the capacity of any public facilities (streets, highways, freeways, public transit, schools, parks, police, fire, hospitals), public utilities (electrical, water and gas supply lines, sewage and storm drain discharge lines, sanitary landfills) or public works serving the site?**

**No Impact.** The construction and operation of the 0.9-mile trail segment would not tax the capacities of public facilities, public utilities, or public works. The trail segment would be operated in conjunction with the longer trail and existing police, fire and medical services would not need to be expanded to meet the demand of additional users. The bathroom is a self-contained unit that would be periodically pumped. The project would not require the expansion of water lines and there are no phone or wireless hookups proposed as part of the project. No additional electricity would be needed to serve the project.

- g. Generate any demands that will cause a public facility or utility to reach or exceed its capacity?**

**No impact.** Refer to response to f. above.

- h. Be adjacent to or within 500 feet of an existing or planned public facility?**

**No Impact.** The trail segment is not located within 500 feet of an existing or planned public facility. The nearest public facility is the San Mateo County Juvenile Hall, located at 21 Tower Road, San Mateo, CA, which is approximately 1,000 feet to the west of Canada Road and the trail corridor.

- i. Create significant amounts of solid waste or litter?**

**Not Significant.** The proposed trail segment is expected to increase recreational user-ship on all portions of the trail. Increased user-ship would likely lead to the generation of more trash, but this increase is not expected to be significant, and garbage bins would be installed along the new trail segment.

- j. Substantially increase fossil fuel consumption (electricity, oil, natural gas, coal, etc.)?**

**No Impact.** The trail project is being constructed to increase the use of non motor vehicle recreation and does not involve a substantial use of fossil fuels.

**k. Require an amendment to or exception from adopted general plans, specific plans, or community policies or goals?**

**No Impact.** The project does not require an amendment to or exception from adopted general plans, specific plans or community policies.

**l. Involve a change of zoning?**

**No Impact.** The project would not require any changes to the San Mateo County Zoning Ordinance.

**m. Require the relocation of people or businesses?**

**No Impact.** The trail project would be sited on SFWD lands that do not support housing or businesses, therefore, no people or businesses would need to be relocated as a result of this project.

**n. Reduce the supply of low-income housing?**

**No Impact.** The trail project area does not support low-income housing, nor is it designated for future low income housing.

**o. Result in possible interference with an emergency response plan or emergency evacuation plan?**

**No Impact.** The trail project would not cause any interference with an emergency response or evacuation plan.

**p. Result in creation of or exposure to a potential health hazard?**

**No Impact.** The trail project would not create or expose recreationalists to potential health hazards, except those related to traffic as discussed in Section 5.b. above.

**7. Aesthetic, Cultural and Historic**

*Will (or could) this project:*

**a. Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?**

**Not Significant.** State Highway 280 is a State listed scenic road and is located east and up-slope from the proposed trail segment. However, Highway 280 is far enough upslope from the proposed trail that motorists traveling in either direction of the Highway cannot observe the trail. Canada Road is a County scenic road located parallel to the entire portion of the proposed trail. Short-term, construction-related visual impacts may be experienced from motorists traveling southbound along Canada Road. However, the existing trail is mostly hidden from the road

due to the angle of the slope. Pedestrians using the trail would be able to be seen from some portions of Canada Road. Pedestrian traffic is not considered a significant impact as it is not expected to significantly degrade the visual character of the vista from Canada Road.

**b. Obstruct scenic views from existing residential areas, public lands, public water body, or roads?**

**No Impact.** The proposed trail extension would not obstruct scenic views from existing residential areas, public lands, public water bodies, or roads.

**c. Involve the construction of buildings or structures in excess of three stories or 36 feet in height?**

**No Impact.** No buildings would be constructed as a result of this trail project, with the exception of a small self-contained restroom.

**d. Directly or indirectly affect historical or archaeological resources on or near the site?**

**Not Significant.** Since most of the trail would be constructed along an existing roadway, the chance of encountering historical or archaeological resources during construction is remote. Furthermore, the project includes a provision that in the event cultural resources are encountered during construction, all activities within 50 feet must stop and the County shall be notified. An archaeologist would be called in to determine how to deal with the find.

**e. Visually intrude into an area having natural scenic qualities?**

**Not Significant.** As stated above, the proposed trail project would introduce recreationalists into a trail corridor that does not currently support such a use. However, numerous bike lanes and walking trails exist in the area, so while this area has significant natural scenic qualities, the project would not introduce a new use into the area. Further, most of the trail is not visible from Highway 280 or Canada Road, and there are no sensitive visual receptors across Lower Crystal Springs Reservoir to the west. At the northern end of the trail segment, motorists from Highway 92 would be able to view trail users, but motorists viewing recreationalists on a trail is not considered a visual intrusion.

**4.0 RESPONSIBLE AGENCIES.** Check what agency has permit authority or other approval for the Project.

| AGENCY   | YES | NO | TYPE OF APPROVAL  |
|--|-----|----|---|
| U.S. Army Corps of Engineers (CE)                                |     | X  | Not Applicable  |
| State Water Resources Control Board                              |     | X  | Preparation of a Storm Water Pollution Prevention Plan (SWPPP) for compliance with the State of California's NPDES General Permit for Storm Water Discharges Associated with construction Activity. |
| Regional Water Quality Control Board                             |     | X  | Preparation of a Storm Water Pollution Prevention Plan (SWPPP) for compliance with the State of California's NPDES General Permit for Storm Water Discharges Associated with construction Activity. |
| State Department of Public Health                                |     | X  | Not Applicable  |
| San Francisco Bay Conservation and Development Commission (BCDC) |     | X  | Permit for intertidal grading work and project development on land within 100 feet of the Bay shoreline.  |
| U.S. Environmental Protection Agency (EPA)                       |     | X  | Not Applicable  |
| County Airport Land Use Commission (ALUC)                        |     | X  | Not Applicable  |
| CalTrans   | X   |    | Any changes proposed to state roadways must be approved by Caltrans. An encroachment permit would be required for work along the Highway 92 shoulder.   |
| Bay Area Air Quality Management District                         |     | X  | The project must include BMPs related to construction related air quality emissions.  |
| U.S. Fish and Wildlife Service                                   |     | X  | Not Applicable  |
| Coastal Commission   |     | X  | Not Applicable  |
| City   |     | X  | Not Applicable  |
| Sewer/Water District:  |     | X  | Not Applicable  |
| Other:   |     |    | NONE  |

**5.0 MITIGATION MEASURES**

Mitigation measures have been proposed in project application.

| <u>Yes</u>       | <u>No</u>         |
|------------------|-------------------|
| <u>    X    </u> | <u>          </u> |

Other mitigation measures are needed.

|                  |                   |
|------------------|-------------------|
| <u>    X    </u> | <u>          </u> |
|------------------|-------------------|

The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

**Mitigation Measure BIO-1:** Prior to project construction in any areas that support serpentine grassland habitat, a rare plant survey shall be conducted to determine if they are present in the area to be affected by trail construction. Fences shall be erected around any rare plants found to prevent inadvertent damage during trail construction work and/or fence installation. Any plants found that cannot be avoided, should be assessed for possible salvage, or if not practical, then the species shall be used in the revegetation of the unofficial trails.

**Mitigation Measure BIO-2:** The revegetation project shall include the use of top soil taken from the trail construction area. This soil, which includes Crystal Springs lessingia and other native plant seeds, should be scraped from the serpentine area and then be placed on top of the rototilled soil of the former compacted, degraded unofficial trail sites.

**Mitigation Measure BIO-3:** The County of San Mateo shall replace any coast live oaks, or other native trees or shrubs removed during project construction at a ratio of 1:1, using 5 or 15-gallon, nursery grown coast live oak trees as replacements. All trees shall be planted along the trail segment corridor under the direction of San Mateo County Department of Parks staff.

**Mitigation Measure BIO-4:** Project construction shall be limited to the dry season (June 1- November 1) when California red-legged frog and SF garter snake are highly unlikely to be moving to and from aquatic sites.

**Mitigation Measure BIO-5:** All construction staff shall receive training from a qualified biologist on identification, avoidance, and project measures and conditions related to California red-legged frog and San Francisco garter snake. Staff shall not begin work on the project until the training has been completed.

**Mitigation Measure BIO-6:** A qualified biologist shall conduct a pre-construction survey of the project area prior to the start of work. In addition, daily monitoring of the site in the morning prior to the start of work will be conducted at the discretion of the biologist. Work within the open, serpentine grassland would not require a monitor, while trail work along the existing road in the vicinity of willows and other wetland vegetation would require monitoring.

**Mitigation Measure TRAF-1.** The County of San Mateo shall consult with the County and Caltrans traffic engineers to determine the best methods for preventing pedestrian safety hazards related to the road crossings. Such methods may or may not include: installing painted crosswalks; use of visual and audible countdown pedestrian lights, pedestrian light controls, or flashing pedestrian crosswalk lights, and installing pedestrian signs at critical intersections or crossings.



**6.0 MANDATORY FINDINGS OF SIGNIFICANCE**

|  | Yes | No |
|--|-----|----|
| 1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal, or eliminate important examples of the major periods of California history or prehistory? |     | X  |
| 2. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?   |     | X  |
| 3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable?   |     | X  |
| 4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?   |     | X  |

On the basis of this initial evaluation:

\_\_\_\_\_ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Current Planning Section.

  X   I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because of the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

\_\_\_\_\_ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

\_\_\_\_\_  
(Sign)

\_\_\_\_\_ Date

\_\_\_\_\_  
(Title)

## 7.0 **SOURCE LIST**

- A. Field Inspection
- B. County General Plan 1986
  - a. General Plan Chapters 1-16
  - b. Local Coastal Program (LCP) (Area Plan)
  - c. Skyline Area General Plan Amendment
  - d. Montara-Moss Beach-El Granada Community Plan
  - e. Emerald Lake Hills Community Plan
- C. County Ordinance Code
- D. Geotechnical Maps
  - 1. USGS Basic Data Contributions
    - a. #43 Landslide Susceptibility
    - b. #44 Active Faults
    - c. #45 High Water Table
  - 2. Geotechnical Hazards Synthesis Maps
- E. USGS Quadrangle Maps, San Mateo County 1970 Series (See F. and H.)
- F. San Mateo County Rare and Endangered Species Maps, or Sensitive Habitats Maps
- G. Flood Insurance Rate Map – National Flood Insurance Program
- H. County Archaeologic Resource Inventory (Prepared by S. Dietz, A.C.R.S.) Procedures for Protection of Historic and Cultural Properties – 36 CFR 800 (See R.)
- I. Project Plans or EIF
- J. Airport Land Use Committee Plans, San Mateo County Airports Plan
- K. Aerial Photography or Real Estate Atlas – REDI
  - 1. Aerial Photographs, 1941, 1953, 1956, 1960, 1963, 1970
  - 2. Aerial Photographs, 1981

- 3. Coast Aerial Photos/Slides, San Francisco County Line to Año Nuevo Point, 1971
- 4. Historic Photos, 1928-1937

L. Williamson Act Maps

M. Soil Survey, San Mateo Area, U.S. Department of Agriculture, May 1961

N. Air Pollution Isopleth Maps – Bay Area Air Pollution Control District

O. California Natural Areas Coordinating Council Maps (See F. and H.)

P. Forest Resources Study (1971)

Q. Experience with Other Projects of this Size and Nature

R. Environmental Regulations and Standards:

|         |  |                         |
|---------|--|-------------------------|
| Federal | – Review Procedures for CDBG Programs            | 24 CFR Part 58          |
|         | – NEPA 24 CFR 1500-1508                          |                         |
|         | – Protection of Historic and Cultural Properties | 36 CFR Part 800         |
|         | – National Register of Historic Places           |                         |
|         | – Floodplain Management                          | Executive Order 11988   |
|         | – Protection of Wetlands                         | Executive Order 11990   |
|         | – Endangered and Threatened Species              |                         |
|         | – Noise Abatement and Control                    | 24 CFR Part 51B         |
|         | – Explosive and Flammable Operations             | 24 CFR 51C              |
|         | – Toxic Chemicals/Radioactive Materials          | HUD 79-33               |
|         | – Airport Clear Zones and APZ                    | 24 CFR 51D              |
| State   | – Ambient Air Quality Standards                  | Article 4, Section 1092 |
|         | – Noise Insulation Standards                     |                         |

S. Consultation with Departments and Agencies:

- a. County Health Department
- b. City Fire Department
- c. California Department of Forestry
- d. Department of Public Works
- e. Disaster Preparedness Office
- f. Other

(1/22/07)

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**8.0**    **REPORT PREPARERS**

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## **APPENDIX A**

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## Memo

**To:** Bill Harris, Harris Design  
Sam Herzberg, San Mateo County  
**From:** Autumn Meisel, Sr. Biologist  
**Job Code:** ECST  
**Subject:** Crystal Springs Trail: Chronological Account of TRA's Consultation with the  
USFWS on Special Status Species Potentially Present at the Project Site  
**Date:** January 22, 2010

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This memo summarizes our communication with the USFWS regarding the Crystal Springs Trail Project. *Plantago erecta*, host plant for the federal threatened Bay checkerspot butterfly (*Euphydryas editha bayensis*) occurs within the project area, as identified during my visits to the site in the spring and summer of 2009. The proposed project would result in impact to this plant due to grading. The plant is protected where the butterfly is present. The nearest, extant, location of Bay checkerspot butterfly is south of San Jose.

We had sent you both a memo documenting the issues on May, 27, 2009 (attached at the end of this document). We had asked for an additional \$3,000 of budget to address these issues. This budget was spent on meeting a representative of the United States Fish and Wildlife Service (USFWS) on site, and ongoing communication with USFWS staff. This memo serves as our work product for the budget augmentation, documenting the process TRA performed in addressing the issues.

I first contacted Angela Picco, San Mateo County contact at the USFWS in May 2009, to discuss proposed impacts to plantago. I sent Ms. Picco information on the project and she consulted with USFWS entomologist Mr. Nagano Nagano, Chief- Endangered Species Division, ((916) 414-6600). Mr. Nagano verbally stated to Ms. Picco that the USFWS would consider the project site to be potential Bay checkerspot butterfly habitat, and would thus regulate any impact to the butterfly's host plant. However, Mr. Nagano provided no formal consultation or response, and it is not clear that he ever reviewed the project information. I left Mr. Nagano several voice messages to discuss these issues, but Mr. Nagano never replied. From the months of June to August, I persisted in trying to get someone at the USFWS to review and comment on this project. I spoke with USFWS staff person Melisa Helton in July, who was our contact on other TRA projects. As Ms. Helton was changing positions, she could not take on this project, but she did put pressure on USFWS Supervisor Ryan Olah to have the project assigned. Mr. Olah

assigned Ben Solvesky, another biologist working for Mr. Nagano at the Sacramento USFWS office, to this project in August.

On September 10, 2009 Mr. Solvesky met Bill Harris, Sam Herzberg, Christine Schneider and myself at the project site. Prior to our meeting, I had sent Mr. Solvesky the current project plans and discussed the project purpose over the phone. We walked the site of new trail construction where plantago occurs. Mr. Solvesky stated to the group that he was not concerned about impacts to Bay checkerspot butterflies at this site. He stated that he wanted to see avoidance measures for red-legged frog and SF garter snake. He stated he would then provide us with these avoidance measures for the frog and snake. However, to this date, avoidance measures have not been provided.

I prepared a Biological Assessment (BA) for this project (dated October 6, 2009), and sent it to Mr. Solvesky on that date. On October 7, Mr. Solvesky sent me an email that acknowledged receipt of the BA, but questioned our requirement of project approval from the USFWS. I replied in an email on that date that *"We actually don't; it is just due diligence. The project does require CEQA review, and based on Mr. Nagano's initial reaction to this project; we would like to ensure that the USFWS has no concerns. We need no formal approval or consultation; a letter would suffice."* On the same day, Mr. Solvesky replied back to this email stating *"I plan to write a "no take" letter, but it may not get signed that way."*

On October 20, 2009, Mr. Solvesky sent another email asking for clarification on the project, and stating that he *"was willing to attempt to write a "no take" letter for the 520 foot trail construction, but that he was "not willing to write the letter for the entire project without a lot more information about repaving the access road."* I replied on October 26, 2009 with the following:

*"We do not need the USFWS to address the whole length if you are not comfortable doing this as an Initial Study is being prepared and the project is being addressed in the Initial Study Checklist (IS) under CEQA. Our purpose of contacting the USFWS was to discuss the impact to Plantago erecta, as, unlike with San Francisco garter snake and red-legged frog, there is not clear policy on how host plants are treated that are outside of the current range of the Bay checkerspot. I understood from our meeting that we were on the same page in feeling that as the nearest population is located south of San Jose, the plantago on site does not provide habitat for the species [Bay checkerspot]. As an additional item, you offered to suggest avoidance measures for the red legged frog and SF garter snake. These species are already being addressed in the IS, although we would appreciate your input into how to write these measures. TRA has boiler plate avoidance measures for SF garter snake and red legged frog that have been developed over the years with input from the USFWS and the California Department of Fish and Game (CDFG), but it is always useful to receive more and updated advice, and guidance does change as new research and understanding into these species' life history is obtained.*

*It would suffice for you to treat only the area of new trail. The remainder of the trail was actually addressed in 1994 in a previous IS for the entire Crystal Springs Trail; the reason for reopening the*



*project is that the area of newly constructed trail that would be ADA accessible is a new feature and was not included in the older project description. Hence a new IS is being prepared that includes this feature."*

I have not received any further communication from Mr. Solvesky or anyone else at the USFWS since this time. We have done our due diligence in providing the USFWS with information on the project and giving them an opportunity to respond early to the project. The IS addresses all listed species considered for their potential to occur on site, including the Bay Checkerspot butterfly, red legged frog and SF garter snake. The USFWS will have an opportunity to comment on the project during the IS comment period, and TRA will respond to comments as part of our existing contract.



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## Memo

**To:** Bill Harris, Harris Design  
**From:** Autumn Meisel, Sr. Biologist  
Christine Schneider, Sr. Project Manager  
**Job Code:** ECST  
**Subject:** Crystal Springs Trail: Presence of rare plant (*Plantago erecta*, or dwarf  
plantain) at serpentine slope at site  
**Date:** May 27, 2009

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Our scope of work to prepare the CEQA environmental review (Initial Study/Mitigated Negative Declaration, or IS/MND) included a survey of the project area to assess the potential for special-status plants to occur along the segment. The rare plants that have the potential to be present include the dwarf plantain, Marin dwarf flax (*Hesperolinon congestum*), San Mateo wooly sunflower (*Eriophyllum latilobum*), Crystal Springs lessingia (*Lessingia arachnoidea*) and Crystal Springs fountain thistle (*Cirsium fontinale* var. *fontinale*). We allotted a total of 20 hours for this effort. Autumn has now gone to the site three times, and will have to go back in June to complete her surveys. We still have remaining money to perform the rare plant survey report that will provide our findings, and to address the presence/absence of rare plants within the trail corridor in the biology section of the IS Checklist.

However, on Autumn's field surveys she has discovered that the dwarf plantain plants within the proposed trail corridor occur everywhere within the area of new trail that would connect the existing trail with the Ralston Trail at Canada Road. Dwarf plantain is the host plant for the Bay Checkerspot butterfly (*Euphydryas editha bayensis*), which is listed as Threatened on the federal Endangered Species List. The Bay Checkerspot butterfly previously existed at Edgewood Park, four miles to the southeast of the project site. The species disappeared from Edgewood Park in 2003.

Due to the project site's close proximity to previously occupied habitat, guidance from the United States Fish and Wildlife Service (USFWS) with respect to potential impacts to this plant resulting from trail construction is required. Autumn has spoken to Angela Picco at the USFWS who consulted with Mr. Nagano Nagano, the USFWS entomologist for the San Francisco Bay

region. Mr. Nagano stated that the USFWS would consider the project site to be potential Bay Checkerspot butterfly habitat, and would thus regulate any impact to the butterfly's host plant. Mr. Nagano strongly recommended avoidance, and stated that the USFWS may require a take permit if impacts to the plant will occur.

If the USFWS wants to assume presence of the dwarf plantain, this could be seen as a significant unmitigable impact, and if so, an EIR would need to be prepared instead of an IS/MND.

While our scope of work does not include USFWS consultation, we would like to offer this service to you and to the County of San Mateo Parks Department. We could spend 24 hours, or \$3,000 to work with Mr. Nagano and Sam Herzberg of the Parks Department. These hours would include coordination with USFWS staff, a site visit with Mr. Nagano, Mr. Herzberg and yourself, and a writeup of any determination by USFWS staff. How would you like us to proceed?

## **APPENDIX B**

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## Appendix B.

### Mitigation, Monitoring and Reporting Plan Crystal Springs Trail South of Highway 92 Project

This Mitigation, Monitoring and Reporting Plan (MMRP) has been prepared pursuant to CEQA Guidelines, which state the following:

“In order to ensure that the mitigation measures and project revisions identified in the Initial Study/Mitigated Negative Declaration are implemented, the Lead Agency (San Mateo County Parks Department) shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.” (§15097(a)) and;

“The Lead Agency may choose whether its program will monitor mitigation, report on mitigation, or both. “Reporting” generally consists of a written compliance review that is presented to the decision making body or authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. “Monitoring” is generally an ongoing or periodic process of project oversight. There is often no clear distinction between monitoring and reporting and the program best suited to ensuring compliance in any given instance will usually involve elements of both.” (§15097 (c))

Table 1, on the next page, lists the Impacts, Mitigation Measures, and Timing of the Mitigation Measure (when the measure will be implemented) related to the Crystal Springs Trail Project. All of the mitigation measures listed here will be implemented by the District or by their appointees.

According to CEQA Guidelines Section 15126.4 (a) (2), “Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments. In the case of the adoption of a plan, policy, regulation, or other public project, mitigation measures can be incorporated into the plan, policy, regulation, or project design.” Therefore, all mitigation measures as listed in this MMRP will be adopted by the San Mateo County Parks Director when the project is approved.

| Impact  | Mitigation Measure   | Implementation & Timing   | Monitoring Responsibility  | Verified Implementation                                 |
|---|--|---|--|---|
| <p><b>Impact BIO-1:</b> Fence removal may require workers to walk through serpentine areas and dig out the existing fence posts. New fence installation would require workers to once again walk through serpentine areas, using old fence postholes where possible but likely also digging new postholes. In addition, grading would occur within serpentine grassland along the 520-foot section of trail that is constructed between the service road and Canada Road.</p> | <p><b>Mitigation Measure BIO-1:</b> Prior to project construction in any areas that support serpentine grassland habitat, a rare plant survey shall be conducted to determine if they are present in the area to be affected by trail construction. Fences shall be erected around any rare plants found to prevent inadvertent damage during trail construction work and/or fence installation. Any plants found that cannot be avoided, should be assessed for possible salvage, or if not practical, then the species shall be used in the revegetation of the unofficial trails.</p> | <p><b>Implementation:</b> The San Mateo County Parks Department shall incorporate this measure into building/grading permit plans and all construction contracts; San Mateo County Parks Department staff shall implement these measures</p> <p><b>Timing:</b> Add mitigation language to project plans or contracts prior to approval of final plans.</p> <p>San Mateo County Parks Department staff to ensure pre-construction measures occur before start of construction.</p> | <p><b>Monitoring:</b> San Mateo County Parks Department staff to make site inspections during construction to ensure contractor is implementing construction measures.</p> | <p><b>Initials:</b> _____</p> <p><b>Date:</b> _____</p> |

| Impact   | Mitigation Measure   | Implementation & Timing  | Monitoring Responsibility   | Verified Implementation                                 |
|--|--|--|---|---|
| <p><b>Impact BIO-2:</b> Crystal Springs lessingia (<i>Lessingia arachnoidea</i>, CNPS 1B.2) is common within the project site and was found to be dominant in areas of serpentine soils, including those areas that would be disturbed for the creation of the 520-foot section of new trail. The proposed project includes rototilling and revegetating unofficial trails in the project vicinity that may impact this plant.</p> | <p><b>Mitigation Measure BIO-2:</b> The revegetation project shall include the use of top soil taken from the trail construction area. This soil, which includes Crystal Springs lessingia and other native plant seeds, should be scraped from the serpentine area and then be placed on top of the rototilled soil of the former compacted, degraded unofficial trail sites.</p>                 | <p><b>Implementation:</b> San Mateo County Parks Department staff shall ensure that this item is contained in the construction specifications.</p> <p><b>Timing:</b> Before final construction specifications are completed.</p> | <p><b>Monitoring:</b> San Mateo County Parks Department staff shall ensure that this limitation is included in the construction specifications.</p> | <p><b>Initials:</b> _____</p> <p><b>Date:</b> _____</p> |
| <p><b>Impact BIO-3:</b> Five trees will be removed and four trees will be pruned. The trees to be removed include a 6" pine, 8" oak, 5" pine, 16" oak and 3"pine. The trees to be pruned include a 6" oak, 10" oak, 9" oak, and a 36" multi-trunk oak.</p>   | <p><b>Mitigation Measure BIO-3:</b> The County of San Mateo shall replace any coast live oaks, or other native trees or shrubs removed during project construction at a ratio of 1:1, using 5 or 15-gallon, nursery grown coast live oak trees as replacements. All trees shall be planted along the trail segment corridor under the direction of San Mateo County Department of Parks staff.</p> | <p><b>Implementation:</b> San Mateo County Parks Department staff shall ensure that this item is contained in the construction specifications.</p> <p><b>Timing:</b> Before final construction specifications are completed.</p> | <p><b>Monitoring:</b> Site visit check by San Mateo County Parks Department staff after construction is completed.</p>                              | <p><b>Initials:</b> _____</p> <p><b>Date:</b> _____</p> |
| <p><b>Impact BIO-4:</b> Construction activities may impact upland habitat for California red-legged frog (<i>Rana draytonii</i>, Federal Threatened, State Candidate) and San Francisco garter snake</p>   | <p><b>Mitigation Measure BIO-4:</b> Project construction shall be limited to the dry season (June 1- November 1) when California red-legged frog and SF garter snake are highly unlikely to be moving to and from aquatic sites.</p>   | <p><b>Implementation:</b> San Mateo County Parks Department staff shall ensure that this item is contained in the construction</p>   | <p><b>Monitoring:</b> San Mateo County Parks Department staff shall ensure that this limitation is included in the construction</p>                 | <p><b>Initials:</b> _____</p> <p><b>Date:</b> _____</p> |

| Impact   | Mitigation Measure   | Implementation & Timing   | Monitoring Responsibility   | Verified Implementation                                 |
|--|--|---|---|---|
| <p>(<i>Thamnophis sirtalis tetrataenia</i>, State and Federal Endangered) particularly in those areas located on the west side (downslope to the reservoir) of the existing SFWD road.</p>   |  | <p>specifications.</p> <p><b>Timing:</b> Before final construction specifications are completed.</p>                              | <p>specifications.</p>  |   |
| <p><b>Impact BIO-5:</b> Construction activities may impact upland habitat for California red-legged frog (<i>Rana draytonii</i>, Federal Threatened, State Candidate) and San Francisco garter snake (<i>Thamnophis sirtalis tetrataenia</i>, State and Federal Endangered) particularly in those areas located on the west side (downslope to the reservoir) of the existing SFWD road.</p> | <p><b>Mitigation Measure BIO-5:</b> All construction staff shall receive training from a qualified biologist on identification, avoidance, and project measures and conditions related to California red-legged frog and San Francisco garter snake. Staff shall not begin work on the project until the training has been completed.</p>  | <p><b>Implementation:</b> San Mateo County Parks Department staff</p> <p><b>Timing:</b> Prior to start of construction period</p> | <p><b>Monitoring:</b> San Mateo County Parks Department staff shall note that this training has been performed.</p> | <p><b>Initials:</b> _____</p> <p><b>Date:</b> _____</p> |
| <p><b>Impact BIO-6:</b> Construction activities may impact upland habitat for California red-legged frog (<i>Rana draytonii</i>, Federal Threatened, State Candidate) and San Francisco garter snake (<i>Thamnophis sirtalis tetrataenia</i>, State and Federal Endangered) particularly in those areas located on the west side (downslope to the reservoir) of the existing SFWD road.</p> | <p><b>Mitigation Measure BIO-6:</b> A qualified biologist shall conduct a pre-construction survey of the project area prior to the start of work. In addition, daily monitoring of the site in the morning prior to the start of work will be conducted at the discretion of the biologist. Work within the open, serpentine grassland would not require a monitor, while trail work along the existing road in the vicinity of willows and other wetland vegetation would require monitoring.</p> | <p><b>Implementation:</b> San Mateo County Parks Department staff</p> <p><b>Timing:</b> Prior to start of construction period</p> | <p><b>Monitoring:</b> San Mateo County Parks Department staff shall ensure that this survey has been performed.</p> | <p><b>Initials:</b> _____</p> <p><b>Date:</b> _____</p> |
| <p><b>Impact TRA-1:</b> The proposed trail segment is likely to increase</p>   | <p><b>Mitigation Measure TRA-1:</b> The County of San Mateo shall consult with the County and Caltrans</p>   | <p><b>Implementation:</b> San Mateo County</p>  | <p><b>Monitoring:</b> San Mateo County Parks</p>  | <p><b>Initials:</b> _____</p>                           |



| Impact  | Mitigation Measure   | Implementation & Timing  | Monitoring Responsibility | Verified Implementation |
|---|--|--|---------------------------|-------------------------|
| pedestrian traffic along Highway 92, as well as along Canada Road, where pedestrians would cross Canada Road to access the Ralston Trail trailhead. | traffic engineers to determine the best methods for preventing pedestrian safety hazards related to the road crossings. Such methods may or may not include: installing painted crosswalks; use of visual and audible countdown pedestrian lights, pedestrian light controls, or flashing pedestrian crosswalk lights, and installing pedestrian signs at critical intersections or crossings. | Parks Department staff<br><br><b>Timing:</b> Prior to start of construction period | Department staff.         | <b>Date:</b> _____      |