

APPENDIX F

PROJECT WASTE DISCHARGE REQUIREMENTS – REGIONAL WATER QUALITY CONTROL  
BOARD



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## San Francisco Bay Regional Water Quality Control Board

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**NOTICE OF APPLICABILITY (NOA)  
FOR ENROLLMENT UNDER  
[Order No. 2004-0004-DWQ](#)  
Statewide General Waste Discharge Requirements for  
Dredged or Fill Discharges to Waters Deemed  
by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction**

**FOR THE**

**Diablo Road Trail Project  
Contra Costa County**

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*Sent via electronic mail: No hard copy to follow*

**Effective Date:** December 19, 2024  
**RM:** 451965  
**Place ID:** 887136  
**WDID No:** 2 CW451965

**Permittee:** Town of Danville  
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ALEXIS STRAUSS HACKER , CHAIR | EILEEN M. WHITE, EXECUTIVE OFFICER

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## NOA Coverage

This NOA is issued to the Town of Danville (Permittee) and authorizes the Diablo Road Trail Project (Project) for coverage under the *Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction, San Francisco Bay (Water Quality Order No. 2004-0004-DWQ)* (General WDRs).

Pursuant to the General WDRs, on March 16, 2023, the Permittee submitted a Notice of Intent (NOI) to the Water Board requesting coverage under the General WDRs. The following sections are based on information provided in the NOI and supplemental information received on June 25, September 13, and October 22, 2024.

### 1. Project Summary

The Project will construct a trail along the southern border of Diablo Road in the Town of Danville, Contra Costa County (lat. 37.833659, long. -121.965779). The Project will provide pedestrians and bicyclists with a safe alternative to Diablo Road and will help to close a multi-purpose trail gap between the existing Diablo Road Trail and access to Mount Diablo State Park.

#### 1.1 Site & Project Description

The Project site is immediately north of the East Branch of Green Valley Creek (Creek) and property belonging to the Magee Cattle Ranch, and south of single-family residential uses. The west end of the 0.9-mile trail will terminate just east of the intersection of Fairway Drive and Diablo Road and the east end of the trail will terminate approximately 400 feet west of the intersection of Avenue Nueva and Diablo Road. The trail alignment passes over the 12-foot diameter Alameda Diablo Culvert that conveys a tributary beneath Diablo Road into the Creek, and three smaller drainage areas that receive water from natural drainage of the steep slopes to the south of the Project site.

The trail will be constructed as shown on the plans *Town of Danville, Contra Costa County, California, Improvement Plans for Diablo Road Trail* (Engeo Inc., October 22, 2024). The first 0.2 miles of the trail will be alongside the Creek from Fairway Drive to the Alameda-Diablo Culvert, as shown in Figure 1 of the NOI. The remainder of the trail will follow an existing earthen trail alignment situated within open space primarily on the south side of the Creek and Diablo Road. Along the Creek the trail alignment is located in a narrow strip of land between Diablo Road and the Creek. The trail will have an 8-foot-wide paved section with 2-foot-wide gravel shoulders along each side. The paved section of the trail will consist of 2 inches of hot mix asphalt over 8 inches of aggregate base, and the shoulders will consist of 8 inches of aggregate base. Guard rails, fencing, and retaining walls will be constructed where the trail is constrained either by existing physical or topographical features, property lines, and easement boundaries.

Given the terrain and subsurface characteristics retaining walls will be constructed within the Creek top-of-bank (TOB) at four locations along the trail where necessary to maintain geotechnical stability. Wall 1 as shown on Sheet Number 11 of the plans will be 41.2 linear feet (LF) with 21 feet below the TOB, constructed with a mechanically stabilized earth (MSE) design (geogrid layers with soil and concrete facing). Walls 2 and 4 will be 62 LF (47 LF below TOB), and 141 LF (107.4 LF below TOB) respectively and will be typical soldier pile designs constructed with wood supported on cast-in-place piers that are drilled to an approximate 25-foot-depth. Wall 3 will be 193 LF (176.9 below TOB) and will be constructed with either the MSE

or soldier pile design. The exposed retaining wall areas at Walls 1 and 2 will be less than three feet tall and exposed wall areas at Walls 3 and 4 will extend from about three to ten feet tall within the Creek bank. Access to the construction site will occur from Diablo Road and adjacent roads. Staging will primarily occur within the trail alignment or within previously disturbed areas with bare, gravel, or paved surfaces.

Stormwater runoff on the site generally converges at topographic low points before being conveyed by vegetated or permeable swale and drainage features. Once constructed, portions of the trail adjacent to the Creek will sheet flow toward Diablo Road and follow the existing drainage pattern. The eastern portion of the trail alignment will discharge to adjacent permeable areas on open space land. Open space runoff from hillslopes to the south of the new trail will be collected and conveyed in concrete v-ditches that will direct runoff to the trail's cross-culverts for discharge into pervious areas south of Diablo Road.

## 2. Impacts to Waters of the State

The Water Board independently reviewed the Project record to analyze impacts to water quality and the environment and designated beneficial uses within the Project's watershed.

### 2.1 Fill, Discharge, and Vegetation

The Project will permanently impact approximately 0.033 acre (450 LF) of the Creek along the upper bank due to retaining wall construction and 0.38 acre mixed riparian woodland along the Creek where 25 trees will be removed (nine native coast live oaks, six native valley oaks, and ten non-native eucalyptuses). Four culvert pipe installations are planned along the open space section of the trail where the existing earthen trail crosses two small ephemeral drainages and where open space runoff sheet flows over the trail alignment. The culverts will convey the open space flows beneath the trail and eliminate existing erosive conditions at these locations (Sheets 7, 8, and 9).

Potential construction related temporary impacts could include discharge of soil to the downstream Creek reach during retaining wall installation. Other potential pollutants include oil and grease from vehicles and construction equipment, or any other chemicals used during the Project. Implementation of avoidance and minimization measures will help prevent these indirect impacts.

The retaining walls may alter existing drainage patterns on the site and will permanently restrict the Creek's hydrologic and fluvial dynamics on the right bank (facing downstream) at these locations. In areas where the trail is alongside the Creek, the trail remains mostly at or beyond the TOB and above the 100-year water surface elevations as shown on Figure 2 of the *Stormwater Control Plan, Diablo Road Trail* (Engeo, Inc., September 5, 2024) (SWCP). However, there are two areas where the trail edge will encroach into the 100-year water surface elevation and where Walls 3 and 4 will be constructed. A *Hydraulic Study and Stream Restoration Plan* (Engeo, Inc., May 3, 2024, revised October 21, 2024) was prepared to assess pre-and post-construction erosive flow conditions in the Creek. The study demonstrated that the post-construction water surface elevations and velocity profiles are consistent with the existing conditions and no significant impacts to water surface elevations are expected throughout the Creek alignment. For smaller recurrence interval storms, the Creek is expected to function the same as in the pre-Project condition.

### 2.2 Stormwater Runoff Impacts

During Project implementation, ground-disturbing activities may impact water quality by increasing erosion and sedimentation and discharging debris and other waste materials to

waters of the State. The Project will result in creation of approximately 57,000 square feet (SF) of new impervious surface area that may impact water quality by generating, collecting, concentrating, and discharging pollutants in stormwater runoff. The Project will provide a combination of in lieu and self-retaining treatment as described below. Two bioretention facilities will be located as shown on Figure 2 of the SWCP. Both areas are near the Creek and although their operation in these locations is not expected to cause Creek bank instability, over the long term there is potential for conflict with Creek evolution if channel widening occurs.

### 3. Mitigation

Mitigation for the Project’s impacts will be provided through implementation of the *Stream Restoration Plan* (Engeo, September 6, 2024) (Restoration Plan) and the SWCP. In addition to addressing Project impacts, the Restoration Plan will provide mitigation for impacts associated with the Diablo Road Emergency Culvert Replacement Project (Alameda Diablo Culvert, certified on November 22, 2023, RM 451130). The emergency project impacts included removal of about 13 riparian trees, and 900 SF of direct fill impact along 30 LF of the Creek for culvert extension and rock scour protection. The following table summarizes the impacts for the trail and culvert projects and mitigation measures are further described below:

**TABLE 1: Impact and Mitigation for the Trail and Culvert Projects**

IMPACT		MITIGATION
<b>DIRECT WATERS IMPACTS</b>	<ul style="list-style-type: none"> <li>Culvert Extension at Diablo Road Culvert (10 LF, 120 SF, 26 CY)</li> <li>Rock Riprap at Diablo Road Culvert (20 LF, 300 SF, 3.7 CY)</li> <li>Storm Drain Outfall Rock Riprap (6 LF, 18 SF, 2 CY)</li> <li>Fill Material and Walls (200 LF, 500 SF, 36 CY)</li> </ul>	<ul style="list-style-type: none"> <li>Mitigation Area 1 (70 LF, 2,240 SF, 178 CY)</li> <li>Mitigation Area 2 (110 LF, 4,400 SF, 180 CY)</li> <li>Removal of Concrete Rubble (20 LF, 40 SF, 0.74 CY)</li> </ul>
	Total (236 LF, 938 SF, 67.7 CY)	Total (200 LF, 6,680 SF, 358.74 CY)
<b>WALLS</b>	Retaining Walls (420 LF, 1,319 SF)	<ul style="list-style-type: none"> <li>Biotechnical Willow Planting at Walls (250 willows) (500 LF, 3,500 SF)</li> <li>Culvert Removal (8 LF, 80 SF)</li> </ul>
		Total (508 LF, 3,580 SF)
<b>TREES</b>	34 Trees	208 Trees - 108 hardwood species (Oak/Buckeye) (24,300 SF) plus 100 Willows near Mitigation Area Number 1 (4,500 SF)
		Total (28,800 SF)
<b>EXCLUSION FENCING</b>		Total fenced area below top-of-bank (2.53 acres)

*Creek Mitigation:* Mitigation work within the Creek banks will involve creation of two hydrologic areas to offset the wall fill areas that extend into the floodway of the channel below the 100-year water surface. The hydrologic mitigation areas include creating a backwater channel near the start of the trail at Fairway Drive and a floodplain area immediately downstream of the Alameda Diablo Road Culvert. The total creation area will be 2,964 SF (358 cubic yards (CY) of additional

storage capacity below the calculated 100-year water surface elevations) along approximately 180 LF of the Creek at these two locations. The intent of these mitigation measures is to provide additional hydrologic capacity to offset the minor encroachment of walls into the Creek floodway and to create additional habitat features along the Creek. In addition, willows will be planted as shown on Figure 1 in the Restoration Plan, with focus at strategic locations to offset potential erosive conditions, including along the bank at the downstream end of Wall 3. Additional Creek mitigation will be provided through removal of approximately 40 SF of concrete that appears to have been placed in the channel for energy dissipation at an old outfall from an abandoned culvert system that historically discharged to the Creek. The culvert pipes will also be removed and the Creek bank restored as part of the trail construction.

*Tree Mitigation:* To account for impacts to approximately 34 mature trees from the trail and emergency culvert replacement projects, approximately 108 trees (oak and buckeye) will be planted in areas beyond the TOB. The above-described willow plantings in areas where bank erosion has been identified and where sunlight appears to be sufficient to establish the plants are expected to develop root systems that can extend into the channel and provide bed and bank stability. The addition of willows to this reach of the Creek will provide woody debris in to support Creek habitat over the long term. Additionally, invasive Chinese Pistache trees will be removed and replaced with native trees in several areas. Tree monitoring will be implemented as described in the *Revegetation Plan – Town of Danville Diablo Road Trail Project* (Sequoia Ecological Consulting, December 12, 2022). However, rather than five years of monitoring the trees will be assessed for a minimum period of ten years.

*Creek Fencing:* The Project will fence approximately 2 acres of area to exclude cattle from the Creek. The new fence will be situated on the south side of the Creek as shown on Figure 1 of the Restoration Plan.

*Stormwater Management:* The stormwater control measures have been designed around existing utilities along the southern side of Diablo Road. Working within these constraints, the stormwater facilities will take advantage of existing natural areas that are suitably level for bioretention facilities. Due to site constraints the Project will treat existing impervious areas of Diablo Road that currently flow onto the Project site, in lieu of treating portions of the new impervious trail surfaces. A total of 42,920 SF of impervious surface area (new trail and existing Diablo Road and adjacent areas) will be drain to Bioretention Areas 1 and 2 near the western end of the trail. The bioretention basins are sized to provide both treatment and flow control for runoff. Bioretention Area 2 may be lined to prevent oversaturation of the Creek bank. Where the slopes and space allow, runoff from 3,260 SF of the trail will be directed to self-retaining areas that total 4,200 SF along the trail.

The construction of the trail in this reach of Green Valley Creek will require substantial capturing and rerouting of stormwater from Diablo Road, which currently flows directly into the Creek via overland flow. Drainage inlets along the roadway will capture stormwater and route it to the bioretention areas. The addition of the stormwater management system should reduce bank erosion in several areas where under current conditions, concentrated stormwater flows off the road into the channel down the existing steep creek banks. The outfalls from the bioretention areas will be installed at the approximate ordinary high-water mark above the bottom of the Creek channel and stabilized with rock riprap. The stormwater facilities will be maintained by the Permittee and if the property is sold in the future, the maintenance responsibility will be transferred to the new owner. Maintenance and management will include modification of the treatment areas (reduced size as needed and provision of alternative in lieu stormwater management compliance) if future Creek migration or bank instability occurs.

Project planning and execution will follow the best management practices described below:

- a. Excavation and grading activities on the Creek bank will only be conducted during dry weather.
- b. Disturbance of existing vegetation in and around the work area will be minimized.
- c. The Permittee will ensure that the spread or introduction of invasive exotic plant species is avoided to the maximum extent possible.
- d. No plastic or monofilament erosion control material will be used in or near the Creek or within riparian habitat.
- e. The use or storage of petroleum-powered equipment will be accomplished in a manner to prevent the release of petroleum materials into waters of the State.

#### 4. CEQA Compliance

An Initial Study/Mitigated Negative Declaration (IS/MND) was prepared by the Permittee in August 2022 to address California Environmental Quality Act (CEQA) requirements for the Project. A Notice of Determination was filed with the Contra Costa County Clerk on December 21, 2022.

#### 5. R2-2004-0004 Authorization and NOA Conditions

I, Eileen White, Executive Officer, hereby issue this NOA verifying the proposed Project's activities are authorized under the General WDRs. Maintaining authorization and coverage requires compliance with the General WDRs' Eligibility, Application Requirements, and Discharge Requirements as well as following conditions:

##### 5.1 Regulatory Compliance

1. **Design Conformance.** The Project work shall be constructed in conformance with the NOI and as described herein. Any changes to these plans that may impact waters of the State must be accepted by the Executive Officer before they may be implemented. To request Executive Officer acceptance, the Permittee shall submit the proposed revisions, clearly marked and described, to the Water Board staff listed on the cover page of this NOA and to the 401 application mailbox at [RB2-401Application@Waterboards.ca.gov](mailto:RB2-401Application@Waterboards.ca.gov). The Permittee shall not implement the proposed revisions until notified that they have been accepted by the Executive Officer;

##### 5.2 Pre- and Post-Construction Reporting and Other Requirements

2. **Commencement of Construction.** The Permittee shall submit a Start of Construction Report at least seven days prior to the start of initial construction activities. Notification shall be via email to [RB2-401Reports@waterboards.ca.gov](mailto:RB2-401Reports@waterboards.ca.gov) or delivered written notice, or other verifiable means;
3. **Photo-Documentation Points.** Prior to the start of construction, the Permittee shall establish a minimum of 25 photo-documentation points to document pre- and post-construction conditions of the Project site. The points shall be used to document pre-construction, construction, and post-construction conditions with particular focus at the retaining wall locations, aquatic habitat creation and riparian planting sites, and stormwater treatment facilities. The Permittee shall prepare a site map with the photo-documentation points clearly marked. Following construction, including application of erosion control measures, plant installation, and completion of stormwater treatment

facilities, the Permittee shall photographically document the site. Each photograph shall include the date it was taken, a site-specific identifier, and a descriptive title. These pre- and post-construction photographs and map shall be submitted with the As-Built report specified in Condition 5;

4. **Best Management Practices.** The Permittee shall ensure compliance with all measures included in the Mitigation section of this NOA. Effective erosion and sediment controls shall be used throughout Project implementation to prevent the discharge of sediment and other construction related materials to the Creek;
5. **As-Built Report.** No later than 60 days after completing construction, the Permittee shall submit an As-Built report, acceptable to the Executive Officer, to the Water Board. The report shall document Project construction, including planting and implementation of erosion control measures and all best management practices, and shall include the photographs and map specified in Condition 3. The report shall include the 100 percent construction plans marked with the contractor's field notes that clearly depict any deviations from the design set made during construction. The As-Built report shall be submitted via email to [RB2-401Reports@waterboards.ca.gov](mailto:RB2-401Reports@waterboards.ca.gov) and the Water Board staff responsible for certifications in Contra Costa County. The submittal shall include **As-Built\_451965 Diablo Road Trail Project** in the Subject line of the email;
6. **Mitigation Monitoring & Maintenance.** The Permittee shall implement the mitigation measures described in the Restoration Plan and this NOA, including fence installation to the south of the Creek. The Permittee shall monitor the Project's willow and oak/buckeye mitigation planting areas for minimum periods of five, and ten years, respectively, or longer as needed to ensure successful development of a riparian corridor along the Creek. Geomorphic conditions within the Creek in the vicinity of the retaining walls and the hydrologic mitigation area shall be monitored and adaptively managed for a minimum five-year post-construction period. Particular focus shall be directed to vulnerable areas including the bank downstream of Wall 3. The oak and buckeye plantings shall be irrigated as needed to support survival and growth during the initial establishment years. No irrigation shall occur for the plantings during a minimum 3-year period before monitoring is terminated. Monitoring will evaluate survivorship and health/vigor of plantings, and survey for the presence of non-native invasive plant species. Conditions of trees pruned or otherwise impacted during construction shall also be assessed and if signs of distress are evident, remedial measures shall be proposed and implemented. Adaptive management measures shall be implemented to ensure successful development of the willows and riparian plantings. If monitoring indicates the plantings are not on a trajectory to meet the performance criteria at the end of five years (ten years for the oaks and buckeyes), adaptive management measures (e.g., replacement plantings and extension of the monitoring period) shall be implemented as needed to meet the performance criteria;
7. **Qualitative Monitoring.** Qualitative monitoring will be conducted in years one through five to assess the broader context of the site and its overall ecological condition, and to identify problems that may affect the ability of the planting sites to effectively meet the performance criteria, including weed invasion and erosion. During qualitative monitoring assessments, a qualified biologist or a qualified vegetation program specialist will walk the planting sites to assess the presence of naturally recruited native plants, occurrence of invasive species, signs of erosion, evidence of drought stress and supplemental irrigation effectiveness, signs of deer browse or disease, presence of trash/refuse, and signs of vandalism. Photos will be taken to document

changes in site conditions over time. Qualitative monitoring results for monitoring conducted in years two and four will be included in monitoring reports prepared for Years 3 and 5 or submitted in even monitoring years;

8. **Annual Mitigation Monitoring Reports.** The Permittee shall submit annual monitoring reports, acceptable to the Executive Officer, by January 31 following monitoring years 1-5, 6, 8, and 10. The first monitoring year commences in the calendar year after completing the initial tree plantings. At the time of this NOA the mitigation planting completion is anticipated in 2025. Therefore, monitoring of mitigation areas shall begin in 2026, and the first annual monitoring report shall be due on January 31, 2027, unless the Project is completed at a different time. The first annual report shall include documentation of fence installation, unless otherwise provided in the As-Built report. The annual reports shall summarize each year's monitoring results and include detailed information on the plant survival and growth. The annual reports shall compare data to previous monitoring years and describe any need for adaptive management measures to achieve success. The annual reports shall include photographs taken from the photo documentation points specified in Condition 3. The annual reports shall reference **AMR\_451965\_Diablo Road Trail Project** and shall be submitted via email to [RB2-401Reports@waterboards.ca.gov](mailto:RB2-401Reports@waterboards.ca.gov) and the Water Board staff responsible for 401 certifications in Contra Costa County. Annual reports may also be submitted in hard copy to the attention of 401 Certifications Reports (see the address on the letterhead);
9. **Performance and Success Criteria.** Success criteria for the Project shall be as follows: (1) willow canopy cover at the end of five years shall be approximately 80 percent of the planted areas. Considering the significant number of planned willow installations, measuring percent survival may be difficult so canopy cover shall be used as a guide for success. Additional attention shall be given to willow growth in particularly vulnerable area along the bank, including the upstream and downstream ends of the retaining walls; (2) oak and buckeye riparian plantings shall achieve a 70 percent survival rate by the end of ten years; (3) non-native invasive species identified as "highly invasive" by the California Invasive Plant Council (Cal-IPC) (exclusive of non-native annual grasses) shall be documented and controlled if observed above 10 percent absolute cover. No new (i.e., species that are not already present in or around the Project site) invasive species designated as "high" by the California Invasive Plant Council (Cal-IPC) shall be present within the restoration area, and no more than 5 percent absolute cover of new invasive plants listed as "moderate" in the Cal-IPC Inventory surveys shall be present; and (4) no significant erosion and/or sedimentation that threatens habitat quality shall be present;
10. **Notice of Termination Report.** Pursuant to Provision 16 of the General WDRs, the Permittee shall provide the Water Board with a Notice of Termination (NOT) requesting un-enrollment from the General WDRs (Attachment 2 to General WDRs). The NOT shall be submitted to the Water Board no later than 60 days after Project mitigation monitoring is complete and shall demonstrate that the Project has been carried out in accordance with the Project description provided in the Application. The NOT shall include the As-Built report, including the map and photographs specified in Condition 3. The NOT shall reference **NOT\_451965\_Diablo Road Trail Project**, include the date that the first Project related work occurred and the date construction was completed, and be sent via email to [RB2-401Reports@waterboards.ca.gov](mailto:RB2-401Reports@waterboards.ca.gov), and by email to the Water Board staff responsible for 401 certifications in Contra Costa County;

### 5.3 Administrative and General Compliance

11. **Site Access.** The Permittee shall grant Water Board staff or an authorized representative, upon presentation of credentials and other documents as may be required by law, permission to: (1) enter upon the Project site or compensatory mitigation site(s) where a regulated facility or activity is located or conducted, or where records are kept; (2) have access to and copy any records that are kept and are relevant to the Project or the requirements of this NOA; (3) inspect any facilities, equipment, practices, or operations regulated or required under this NOA; and (4) sample or monitor for the purposes of assuring NOA compliance;
12. **Maintain General WDRs and NOA at Site.** A copy of the General WDRs and this NOA shall be provided to any consultants, contractors, and subcontractors working on the Project. Copies of the General WDRs and this NOA shall remain at the Project site for the duration of the Project. The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors;
13. **Submittal of Reports.** Where this NOA requires submittal of reports, including plans, reports, or related information, the submitted reports shall be acceptable to the Executive Officer;
14. **Expiration.** This NOA shall continue to have full force and effect regardless of the expiration or revocation of any federal license or permit issued for the Project;

### 5.4 Standard Conditions

15. **Application Fee.** This NOA is conditioned upon full payment of the required fee, including annual fees, as set forth in 23 CCR section 3833. The Project's required fee is \$2,734 based on the 2022/2023 Water Quality Certification Dredge and Fill Application Fee Calculator, Category A – Fill & Excavation Discharges. The fee was paid in full on March 24, 2023.
16. **Annual Fee.** In accordance with 23 CCR section 2200, the Permittee shall pay an annual fee to the Water Board each fiscal year (July 1 – June 30) until Project construction activities are completed and an acceptable Notice of Termination is received by the Water Board. Annual fees will be automatically invoiced to the Permittee. **The Permittee must notify the Water Board of Project completion with a final report in order to request to terminate annual invoicing. Notification should be sent to the Water Board staff responsible for 401 certifications in Contra Costa County (see our website for current staff) and to [RB2-401Reports@waterboards.ca.gov](mailto:RB2-401Reports@waterboards.ca.gov).** Water Board staff will verify conditions of the General Order have been met and may request a site visit at that time to confirm the Project's status and compliance with this NOA and the General Order.

This NOA applies to the Project as proposed in the application materials and designs referenced above. Be advised that failure to implement the Project in conformance with this NOA is a violation of the General WDRs. Any violation of the General WDRs is a violation of State law and subject to administrative civil liability pursuant to California Water Code (CWC) section 13350. Failure to meet any condition of this NOA or General WDRs may subject the Permittee to civil liability imposed by the Water Board to a maximum of \$5,000 per day of violation or \$10 for each gallon of waste discharged in violation of this action.

Also, any requirement for a report made as a condition to this NOA is a formal requirement pursuant to CWC section 13267, and failure or refusal to provide, or falsification of such

required report, is subject to civil liability as described in CWC section 13268. The burden, including costs, of these reports bears a reasonable relationship to the need for the report and the benefits to be obtained from them, protection of beneficial uses and the environment.

If you have any questions concerning this NOA, please contact the Water Board staff responsible for 401 certifications in Contra Costa County (see web page [certs | San Francisco Bay Regional Water Quality Control Board \(ca.gov\)](#)). All future correspondence regarding the Project should reference the RM number indicated at the top of this letter.

Sincerely,

---

for Eileen M. White, P.E.  
Executive Officer

Attachment & Enclosure: Project Location Map and Design, and [Order No. 2004-0004-DWQ](#)

cc: SWRCB, DWQ, [stateboard401@waterboards.ca.gov](mailto:stateboard401@waterboards.ca.gov) Water Board: Victor Aelion, [victor.aelion@waterboards.ca.gov](mailto:victor.aelion@waterboards.ca.gov)

CDFW:

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Engeo Inc., Jonathan Buck, [jbuck@engeo.com](mailto:jbuck@engeo.com)

# **ATTACHMENT**

**Notice of Applicability (NOA)  
State Water Resources Control Board  
Water Quality Order No. 2004-0004-DWQ**

**Town of Danville  
Diablo Road Trail Project**

**Contra Costa County**

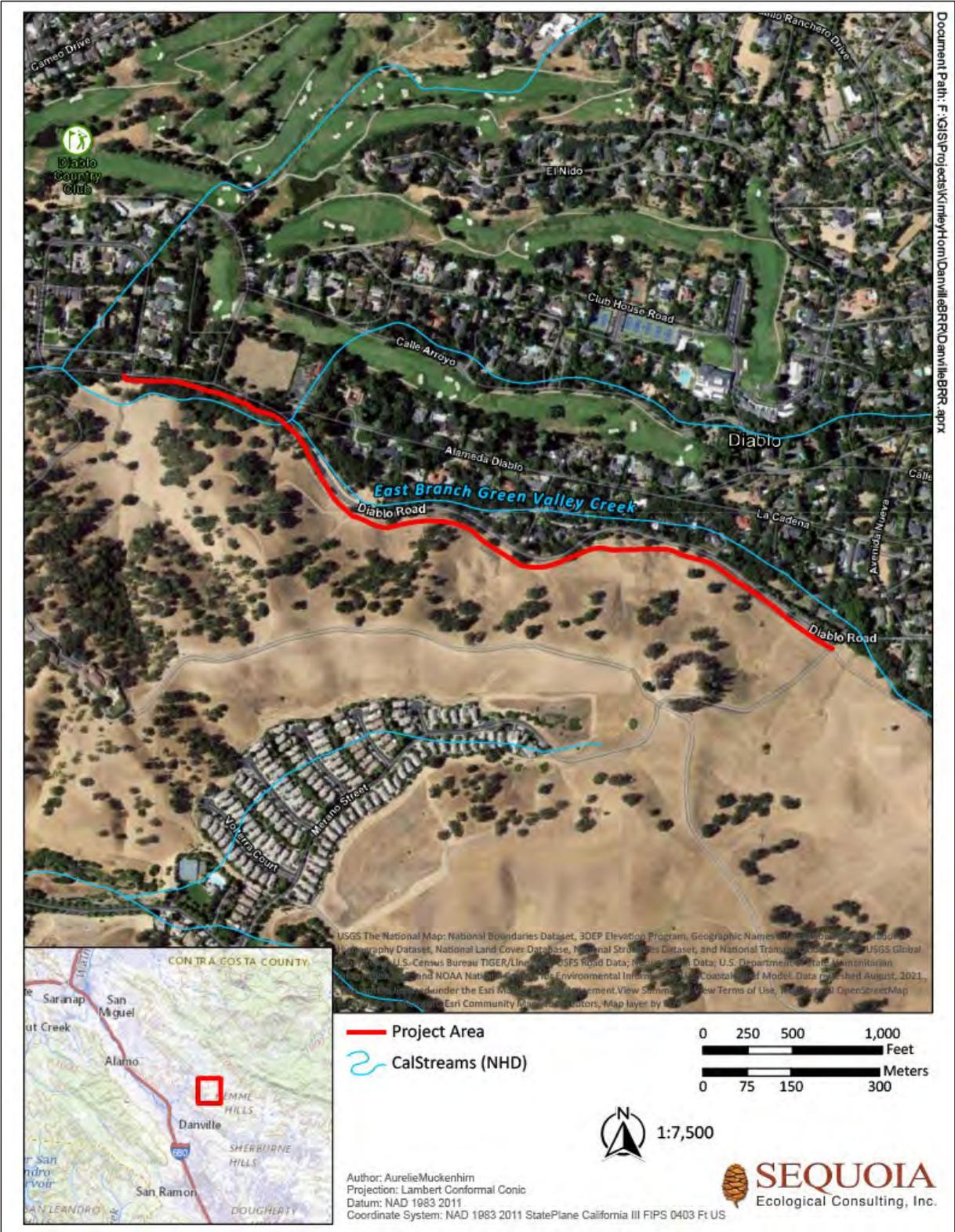
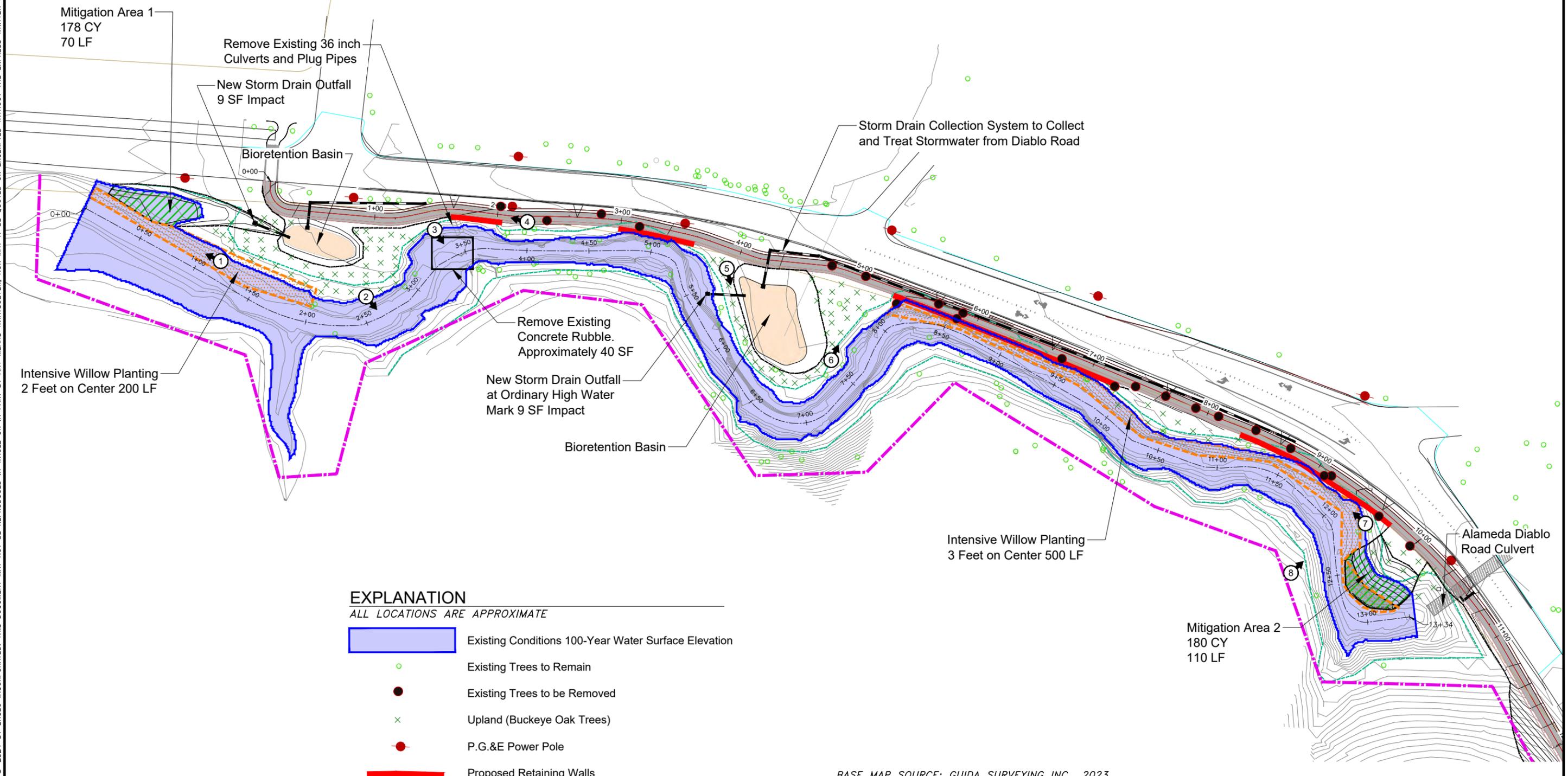


Figure 2. Diablo Road Trail Project Setting

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**EXPLANATION**

ALL LOCATIONS ARE APPROXIMATE

- Existing Conditions 100-Year Water Surface Elevation
- Existing Trees to Remain
- Existing Trees to be Removed
- Upland (Buckeye Oak Trees)
- P.G.&E Power Pole
- Proposed Retaining Walls
- Proposed Cattle Exclusion Fence
- Photo-Documentation Point and Direction



BASE MAP SOURCE: GUIDA SURVEYING INC., 2023



**STREAM RESTORATION PLAN**  
 DIABLO ROAD TRAIL  
 DANVILLE, CALIFORNIA

PROJECT NO.: 8870.000.011	FIGURE NO.
SCALE: AS SHOWN	<b>1</b>
DRAWN BY: CC	



MATCHLINE A-A (SEE SHEET 3)

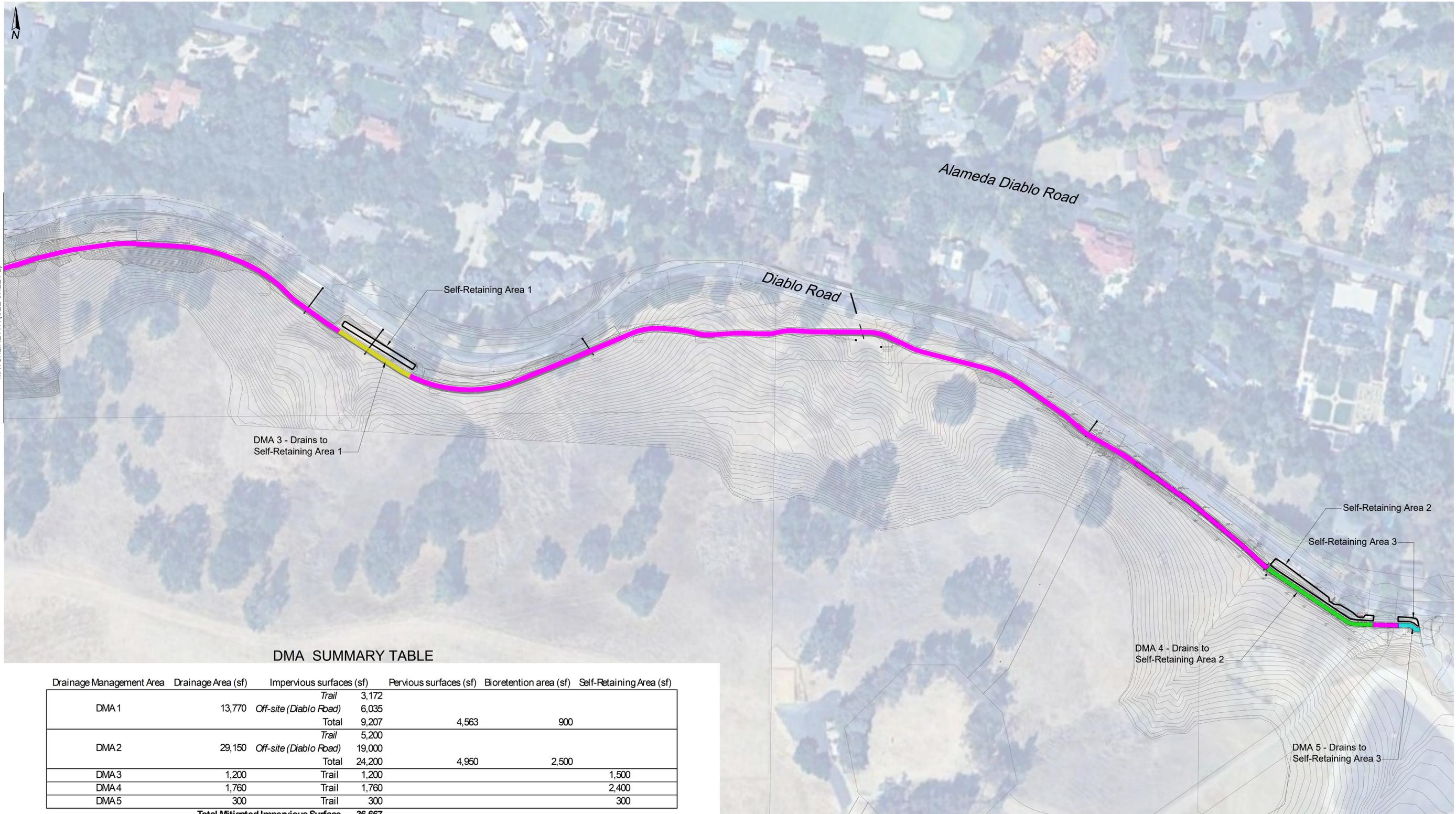
**EXPLANATION**

ALL LOCATIONS ARE APPROXIMATE

- 
- DMA 1
- 
- Trail Impervious Surface  
Offset by Offsite Mitigation
- 
- DMA 2



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DMA SUMMARY TABLE

Drainage Management Area	Drainage Area (sf)	Impervious surfaces (sf)	Pervious surfaces (sf)	Bioretention area (sf)	Self-Retaining Area (sf)
DMA 1	13,770	Trail	3,172		
		Off-site (Diablo Road)	6,035		
		Total	9,207	4,563	900
DMA 2	29,150	Trail	5,200		
		Off-site (Diablo Road)	19,000		
		Total	24,200	4,950	2,500
DMA 3	1,200	Trail	1,200		1,500
DMA 4	1,760	Trail	1,760		2,400
DMA 5	300	Trail	300		300
<b>Total Mitigated Impervious Surface</b>			<b>36,667</b>		

DMA 4 - Drains to Self-Retaining Area 2

Self-Retaining Area 2

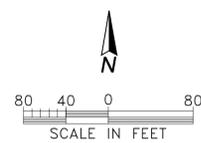
Self-Retaining Area 3

DMA 5 - Drains to Self-Retaining Area 3

**EXPLANATION**

ALL LOCATIONS ARE APPROXIMATE

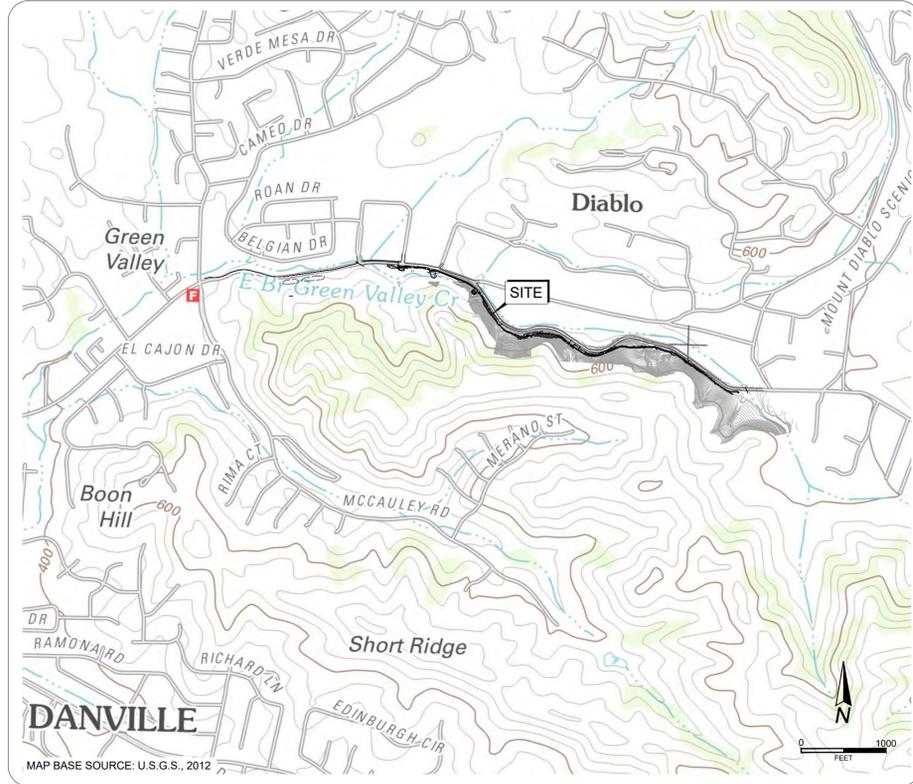
- DMA 3
- DMA 5
- DMA 4
- Trail Impervious Surface Offset by Offsite Mitigation



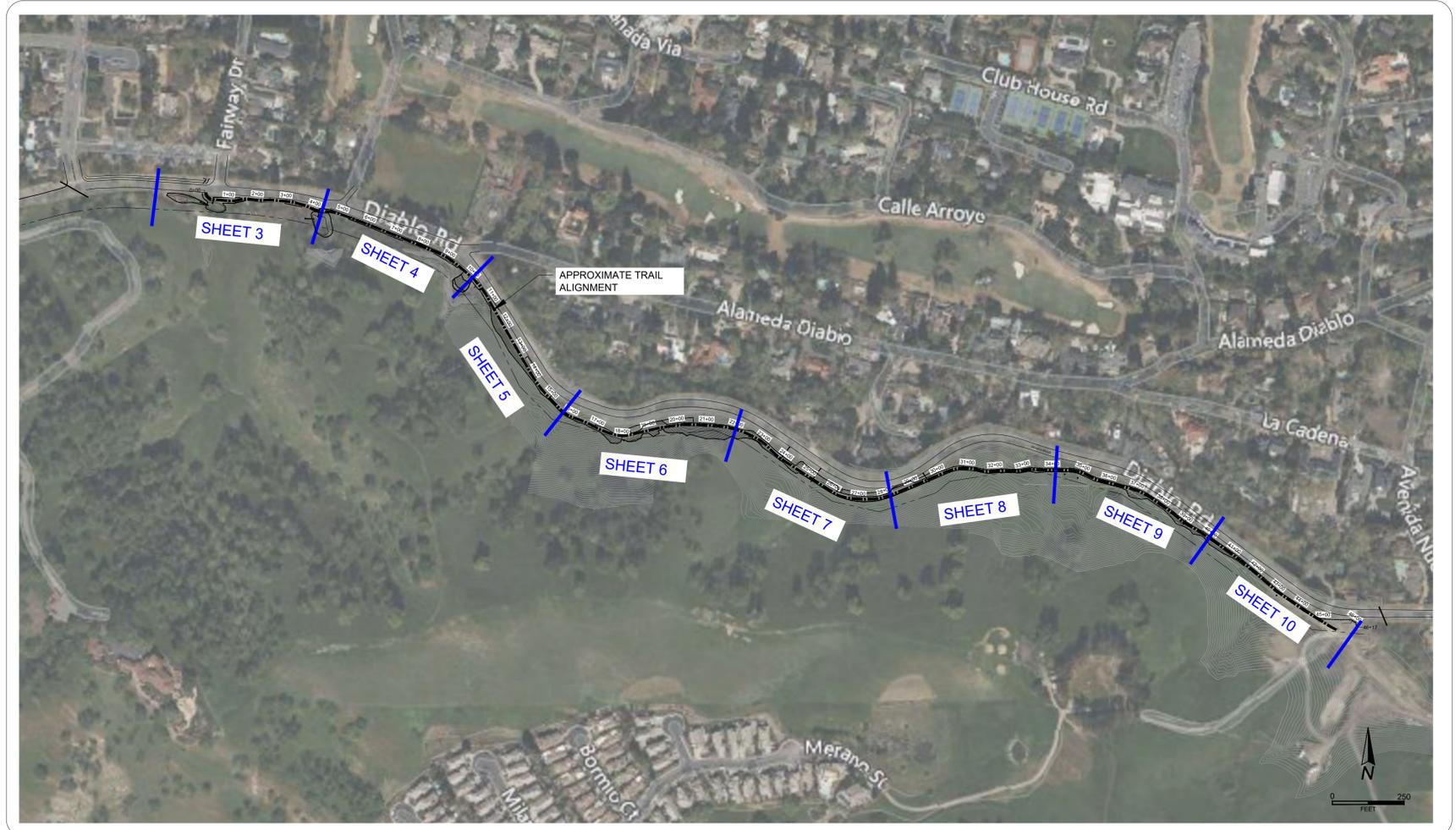
# TOWN OF DANVILLE

## CONTRA COSTA COUNTY, CALIFORNIA

### IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL



VICINITY MAP



SITE PLAN

#### SHEET INDEX

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#### TOPOGRAPHIC SURVEY NOTES

- ALL DISTANCES SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.
- PHYSICAL ITEMS SHOWN ON THIS SURVEY ARE LIMITED TO THOSE SURFACE ITEMS VISIBLE AS OF THE DATE OF THIS SURVEY. SUBSURFACE OBJECTS NOT SHOWN MAY INCLUDE, BUT ARE NOT LIMITED TO, CONCRETE FOOTINGS, SLABS, SHORING, STRUCTURAL PILES, UTILITY VAULTS, PIPING, UNDERGROUND TANKS, AND ANY OTHER SUBSURFACE STRUCTURES NOT REVEALED BY A SURFACE INSPECTION OR PER SITE IMPROVEMENT PLANS.
- DIMENSIONAL TIES TO IMPROVEMENTS ARE 90° TO THE PROPERTY LINES UNLESS NOTED OTHERWISE.
- THE FIELD DATA FOR THIS SURVEY WAS COLLECTED USING A LEICA RTC 360 LASER SCANNER AND THE TRIMBLE SS 1 SECOND TOTAL STATION.
- THE TOPOGRAPHIC POINTS AND LINE WORK SHOWN HEREON WERE MAPPED FROM THE LASER SCAN POINT CLOUD.
- POINT ELEVATIONS ARE FOR THE FEATURE DESCRIBED AND DO NOT CORRESPOND PRECISELY TO THE ADJACENT HORIZONTAL LOCATION. PRECISE LINE WORK WAS DERIVED FROM THE LASER SCAN POINT CLOUD.

#### PROJECT SURVEY CONTROL

THE PROJECT CONTROL IS BASED ON THE SURVEY BY GUIDA SURVEYING INC. JOB NUMBER 0220-00386 AS SHOWN BELOW:

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN POINT 10000 AND POINT 10001, BEING N33°51'53"W, AS DERIVED BY REAL TIME NETWORK MEASUREMENT BASED UPON THE CALIFORNIA COORDINATE SYSTEM 1983 (CCS83), ZONE III, NORTH AMERICAN DATUM OF 1983 (NA2011, EPOCH 2011.00)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
10000	2129890.56'	6138040.34'	482.51'	SET MAG AC ALAMEDA DIABLO & DIABLO RD
10001	2129588.56'	6138243.01'	500.01'	SET MAG AC DIABLO RD
10002	2129934.20'	6138060.40'	485.36'	SET MAG SPK ALAMEDA DIABLO RD
11000	2129924.40'	6138013.93'	482.84'	FND 1.5" OPEN IP NONE DOWN 2"

ELEVATIONS SHOWN HEREON ARE BASED ON THE PUBLISHED ELLIPSOID HEIGHTS OF THE C.O.R.S. STATIONS CALCULATING THE GEOID SEPARATION TO DERIVE ELEVATIONS FOR NAVD 88 (GEOID2012A), PER RECORDS ON FILE WITH THE CALIFORNIA SPATIAL REFERENCE CENTER.

#### BENCHMARK:

ELEVATIONS SHOWN HEREON ARE BASED ON THE PUBLISHED ELLIPSOID HEIGHTS OF THE C.O.R.S. STATIONS CALCULATING THE GEOID SEPARATION TO DERIVE ELEVATIONS FOR NAVD 88 (GEOID2012A), PER RECORDS ON FILE WITH THE CALIFORNIA SPATIAL REFERENCE CENTER.



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DRAWN BY: JDB  
CHECKED BY: JDB  
DATE: MAY 2024  
SCALE: AS SHOWN



COVER SHEET  
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER  
**1**  
OF 20 SHEETS  
PROJECT NO.  
8870.000.011

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**GENERAL NOTES:**

- ALL WORK IS TO BE DONE UNDER THE OVERSIGHT OF THE ENGINEER.
- IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORK HOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF PROPER SHORING OF EXCAVATIONS IN ACCORDANCE WITH THE LATEST OCCUPATIONAL SAFETY LAWS. THE DUTIES OF THE ENGINEER DO NOT INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY IN, ON, OR NEAR THE CONSTRUCTION SITE.
- CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING STRUCTURES AND/OR UTILITIES DURING CONSTRUCTION. PROPER REPAIR SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER AND THE RESPECTIVE UTILITY COMPANY.
- ALL PIPELINES AND OTHER UNDERGROUND UTILITIES MAY NOT BE SHOWN, AND WHERE SHOWN, ARE APPROXIMATELY LOCATED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES IN THE FIELD. CALL "UNDERGROUND SERVICE ALERT" AT 800-227-2600 AT LEAST 48 HOURS BEFORE EXCAVATION OR DEMOLITION FOR IMPROVEMENTS. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY LOCATIONS, ELEVATIONS, ETC. OF EXISTING FACILITIES AND TO IMMEDIATELY NOTIFY THE ENGINEER OF ANY FIELD CONFLICTS OR OMISSIONS.
- ALL CONSTRUCTION MUST CONFORM TO CALTRANS STANDARD PLANS & SPECIFICATIONS DATED 2023 AND TOWN OF DANVILLE STANDARD PLANS DATED MARCH 1989. ALL CONSTRUCTION MUST BE ACCEPTED BY THE PUBLIC WORKS INSPECTOR. TYPICAL DETAILS REFERRED TO ON THESE DRAWINGS ARE DERIVED FROM THESE STANDARD PLANS (AND ANY ADDENDUM THERETO), AND ARE AVAILABLE AT THE OFFICE OF THE PUBLIC WORKS INSPECTOR.
- CONTRACTOR IS RESPONSIBLE FOR MAKING ALL ARRANGEMENTS FOR SITE INSPECTIONS AND SHALL ENSURE THAT ALL CURRENT TOWN OF DANVILLE STANDARDS ARE OBSERVED PRIOR TO BEGINNING OF ANY PHASE OF CONSTRUCTION WORK.
- DUST CONTROL DURING ALL PHASES OF CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
- WATER USED FOR DUST CONTROL AND COMPACTION MAY BE PURCHASED FROM EAST BAY MUD PRIOR TO THE START OF ANY WORK. ANY FEES OR DEPOSITS ARE THE CONTRACTOR'S RESPONSIBILITY.
- ANY DAMAGE TO THE EXISTING FACILITIES INCLUDING, TREES, AND FENCES SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE.
- CONTRACTOR IS RESPONSIBLE TO MEET WITH TOWN OF DANVILLE AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION AND PROVIDE 24 HOURS NOTICE ON ALL INSPECTIONS.
- HAUL ROUTES SHALL BE ONLY ON STREETS AS PRE-APPROVED BY THE CITY ENGINEER.
- TESTING AND OBSERVATION FOR THE PROJECT SHALL BE IN CONFORMANCE WITH THE TOWN OF DANVILLE QUALITY ASSURANCE PROGRAM DATED MAY 2022.
- THE CONTRACTOR SHALL MONITOR AND MAINTAIN RECORDS OF THE NATIONAL WEATHER SERVICE 72-HOUR FORECAST ON A DAILY BASIS AND BE PREPARED TO IMPLEMENT EMERGENCY EROSION CONTROL MEASURES IN THE EVENT OF RAIN OR IF THE PREDICTION FOR RAIN EXCEEDS 20 PERCENT, ALL CONSTRUCTION ACTIVITIES SHALL CEASE AND ALL REASONABLE EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO THE ONSET OF PRECIPITATION.
- ALL ELEVATIONS SHOWN ARE FINISHED ELEVATIONS UNLESS STATED OTHERWISE.
- CONTRACTOR SHALL LAY OUT ALL WORK, ESTABLISH ALL NECESSARY MARKERS, BENCH MARKS, GRADING STAKES, AND OTHER STAKES AS REQUIRED TO ACHIEVE DESIGN GRADES.
- PLAN BASED ON TOPOGRAPHIC SURVEY PROVIDED BY THE TOWN, DATED DECEMBER 2, 2020 AND CHAPELL GEOMATRIX DATED APRIL, 2024 AND AUGUST, 2024.

**LEGEND:**

- FOUND MONUMENT
- GUIDA CONTROL
- ASPH ASPHALT CONCRETE
- CONC CONCRETE
- DWY DRIVEWAY
- BARBED WIRE FENCE
- WOOD FENCE
- CONCRETE WALL
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- POST INDICATOR VALVE
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- LIGHT
- GUY ANCHOR
- JUNCTION POLE
- POWER POLE
- TRAFFIC SIGNAL WITH ARM
- GATE POST
- GUARD POST
- SIGN
- TREE
- SEWER MANHOLE
- UTILITY PULL BOX

**ABBREVIATIONS**

- AB AGGREGATE BASE
- ACP ASBESTOS CEMENT PIPE
- AS AGGREGATE SUBBASE
- BW BACK OF SIDEWALK
- C&G CURB AND GUTTER
- CL CENTER LINE
- CL CLEARANCE
- CMP CORRUGATED METAL PIPE
- DIA DIAMETER
- DET DETAIL
- DI DROP INLET
- DWG DRAWING
- E ELECTRIC
- ELEV ELEVATION
- EP EDGE OF PAVEMENT
- EX EXISTING
- FC FACE OF CURB
- FL FLOW LINE
- G GAS LINE
- GA GAUGE
- GALV GALVANIZED
- HMA HOT MIX ASPHALT
- ID INSIDE DIAMETER
- INV INVERT GRADE ELEVATION
- LT LEFT
- MAX MAXIMUM
- MH MANHOLE
- MIN MINIMUM
- MON MONUMENT
- NTS NOT TO SCALE
- OC ON CENTER
- OD OUTSIDE DIAMETER
- PCC PORTLAND CEMENT CONCRETE
- PED PEDESTRIAN
- PG&E PACIFIC GAS & ELECTRIC CO.
- P/L PROPERTY LINE
- PVMT PAVEMENT
- R RADIUS
- RCP REINFORCED CONCRETE PIPE
- RR RAILROAD
- RT RIGHT
- R/W RIGHT-OF-WAY
- S SLOPE
- SD STORM DRAIN
- SS SANITARY SEWER
- STA STATION
- STD STANDARD
- T TELEPHONE
- TC TOP OF CURB
- TYP TYPICAL
- W WATER
- Δ DELTA (ANGLE OF CURVATURE)



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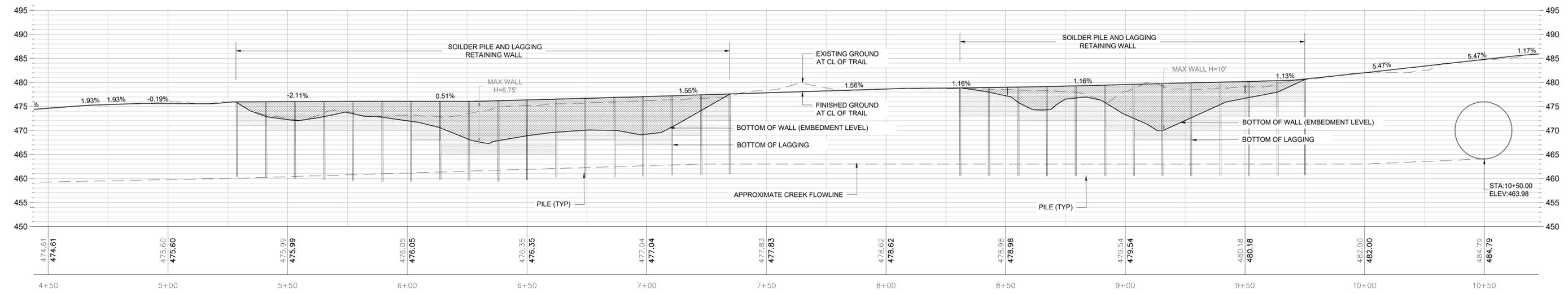
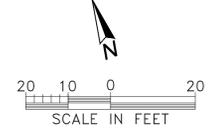
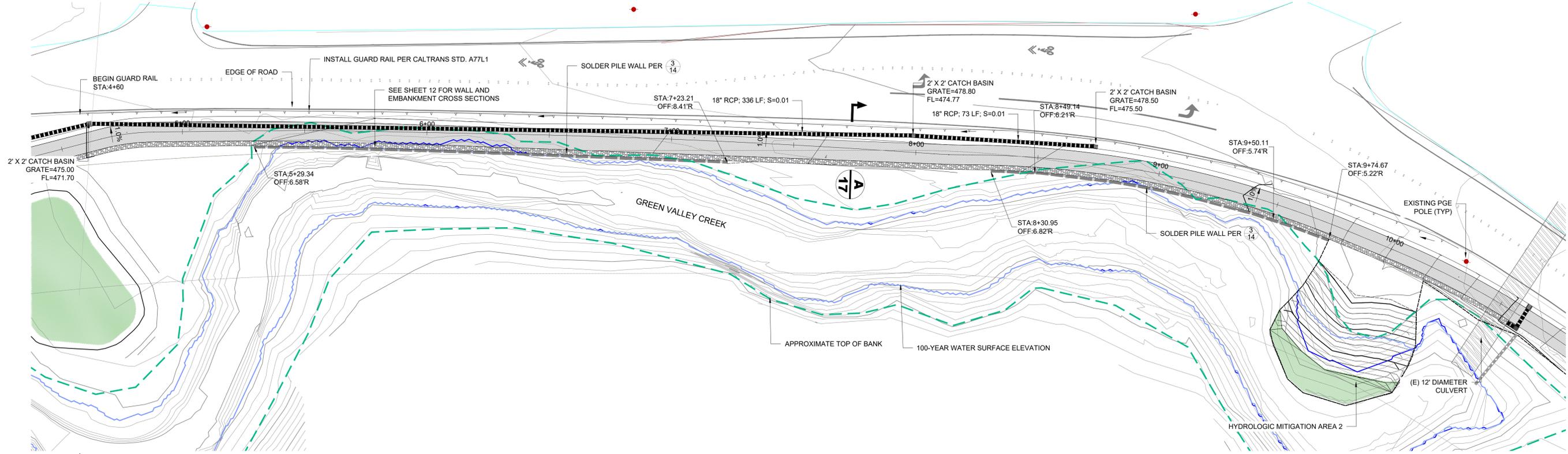


**NOTES, LEGEND, AND ABBREVIATIONS**  
 IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
 TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER
2
OF 20 SHEETS
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8870.000.011



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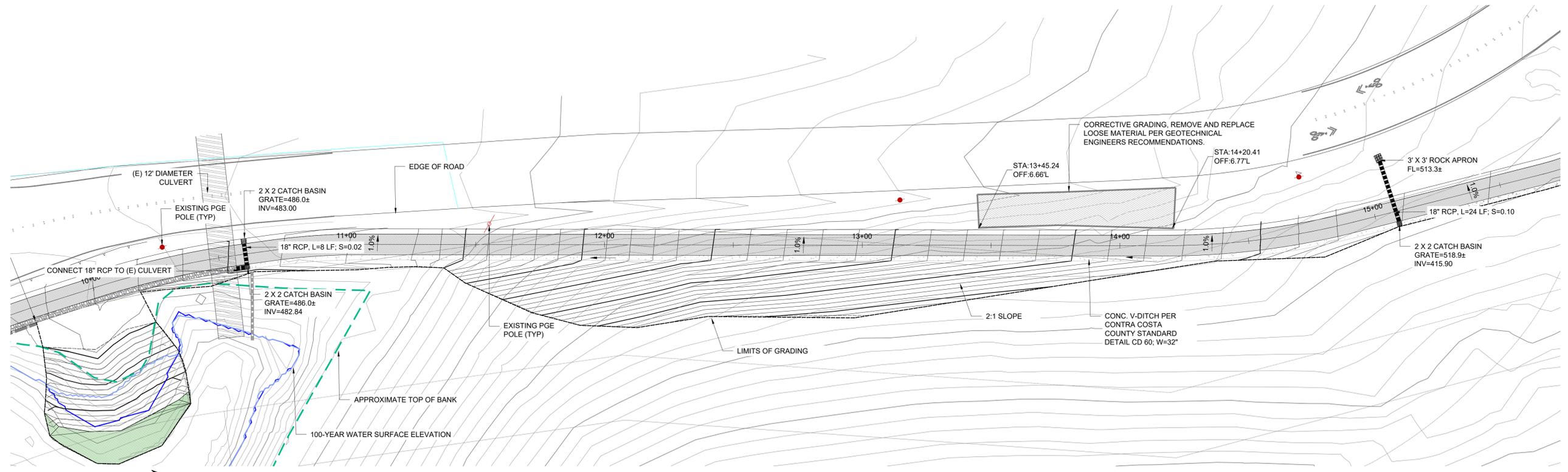
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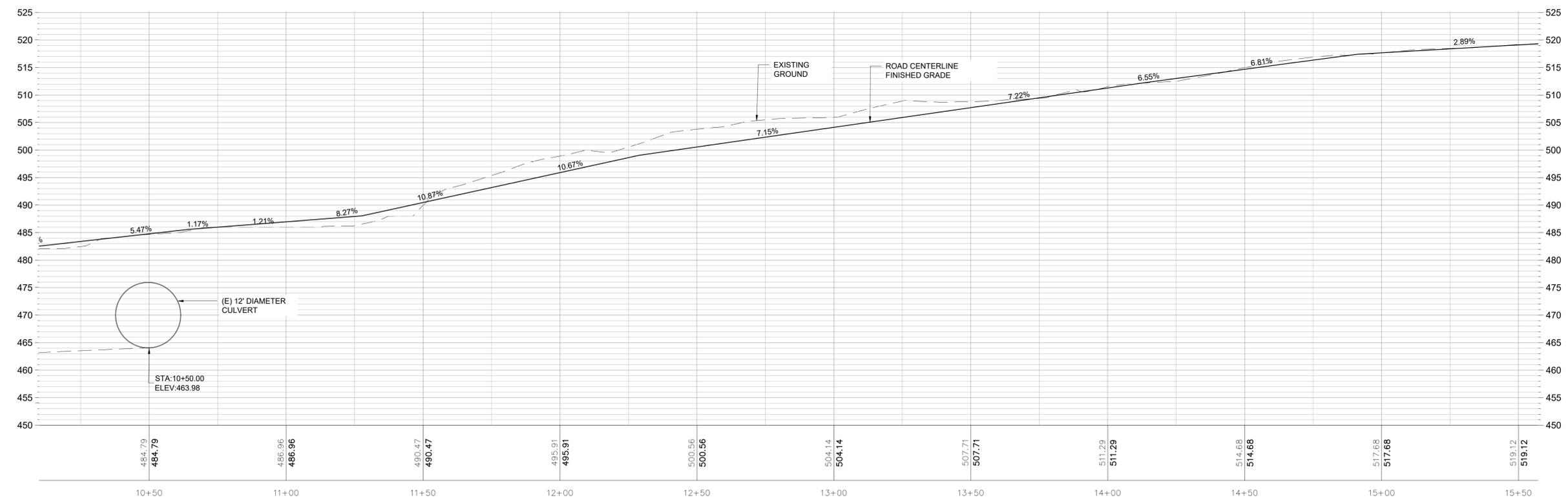
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 IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
 TOWN OF DANVILLE, CALIFORNIA

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PLAN VIEW  
SCALE: 1"=20'



PROFILE VIEW  
SCALE: 1"=20' (HORIZONTAL); 1"=10' (VERTICAL)



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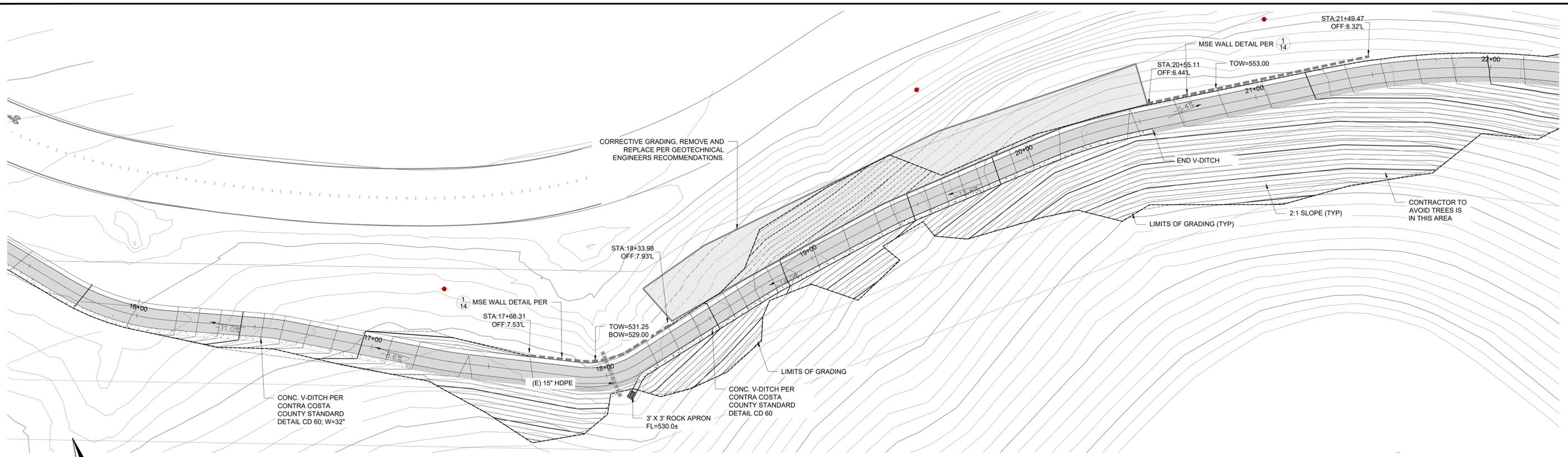
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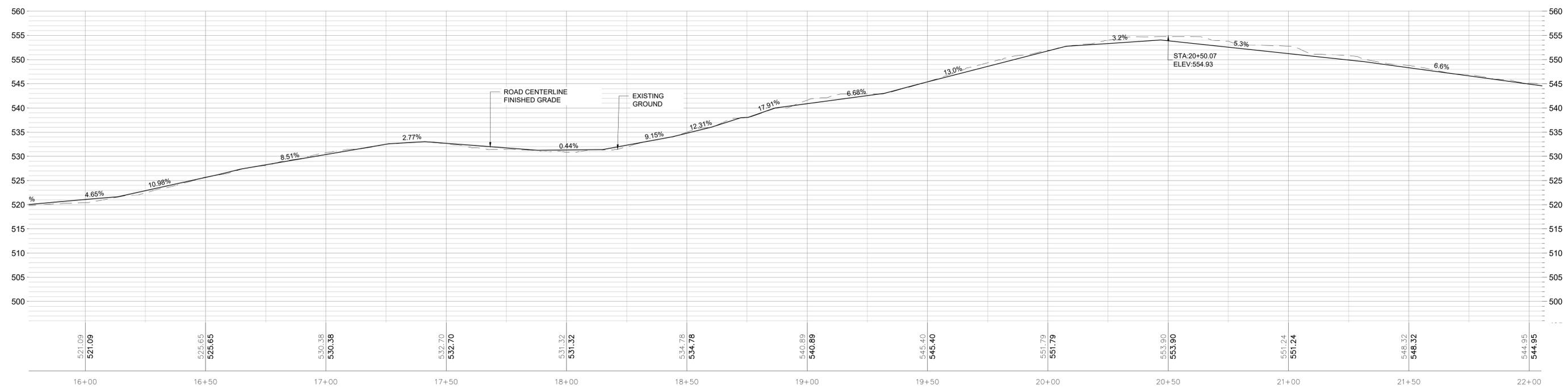
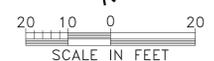
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 IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
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PROFILE VIEW  
SCALE: 1"=20' (HORIZONTAL); 1"=10' (VERTICAL)



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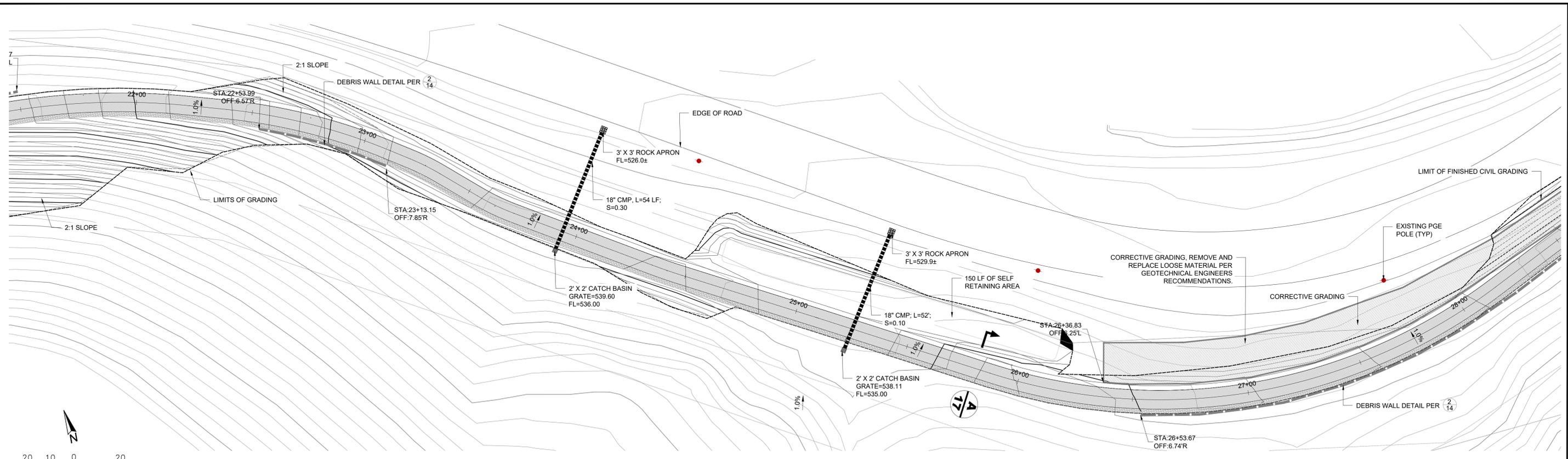
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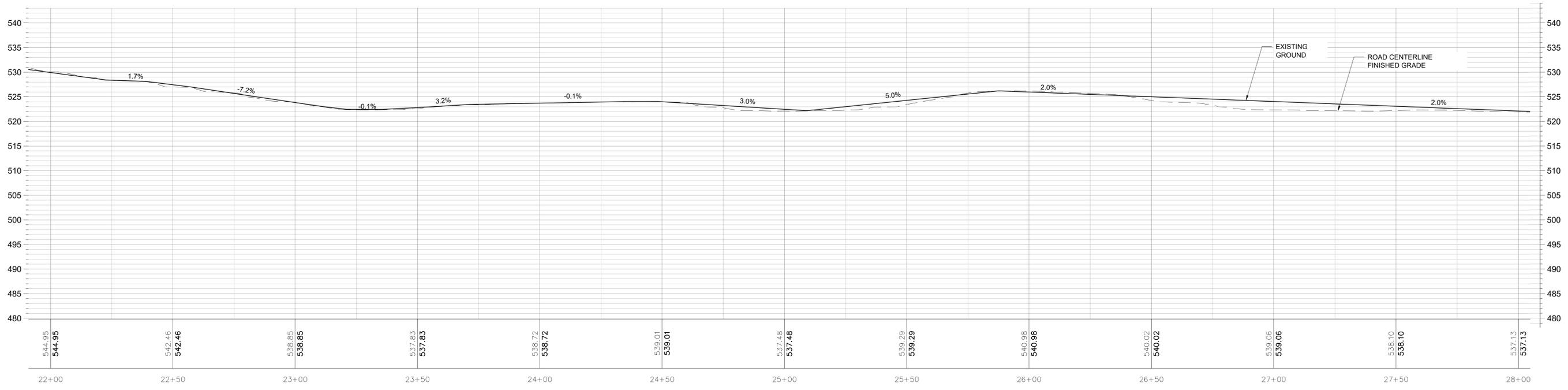
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**PLAN VIEW**  
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**PROFILE VIEW**  
 SCALE: 1"=20' (HORIZONTAL); 1"=10' (VERTICAL)



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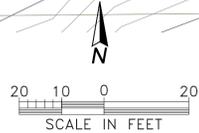
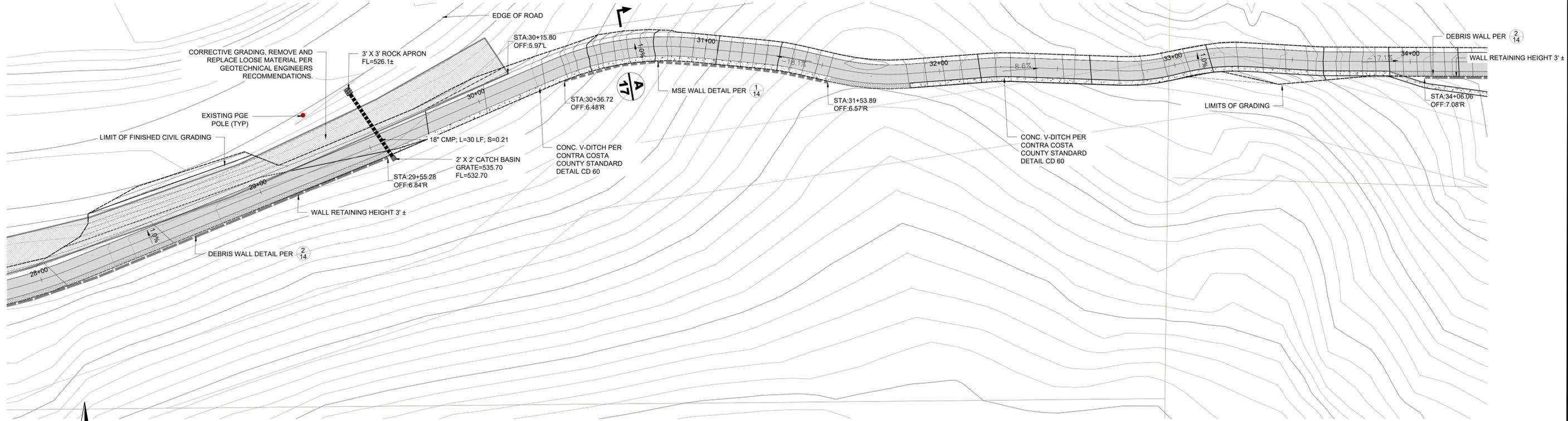
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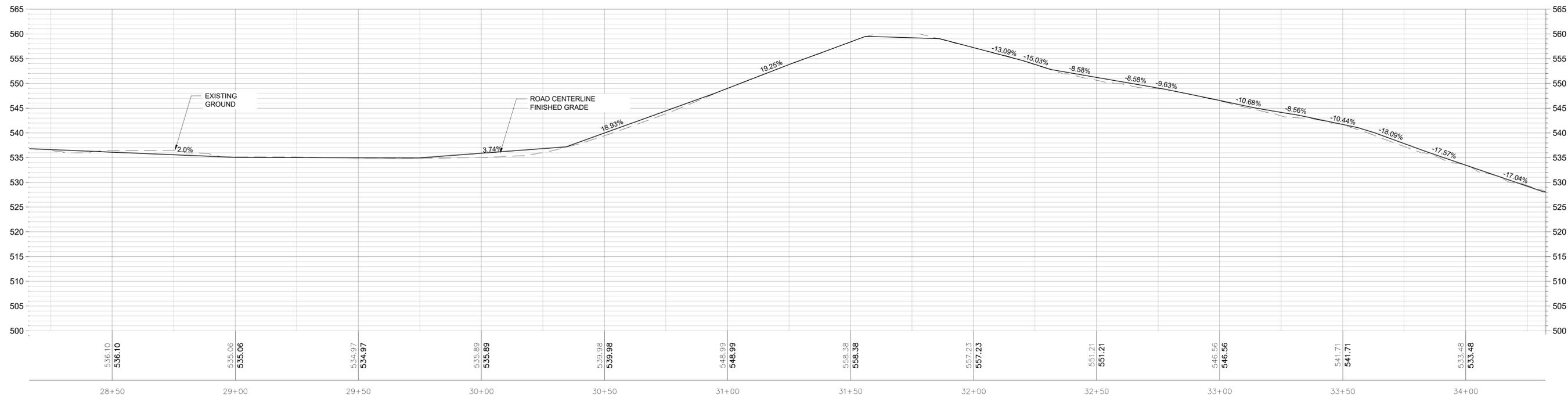


**PLAN AND PROFILE STA: 22+00 - 28+00**  
 IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
 TOWN OF DANVILLE, CALIFORNIA

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PLAN VIEW  
SCALE: 1"=20'



PROFILE VIEW  
SCALE: 1"=20' (HORIZONTAL); 1"=10' (VERTICAL)



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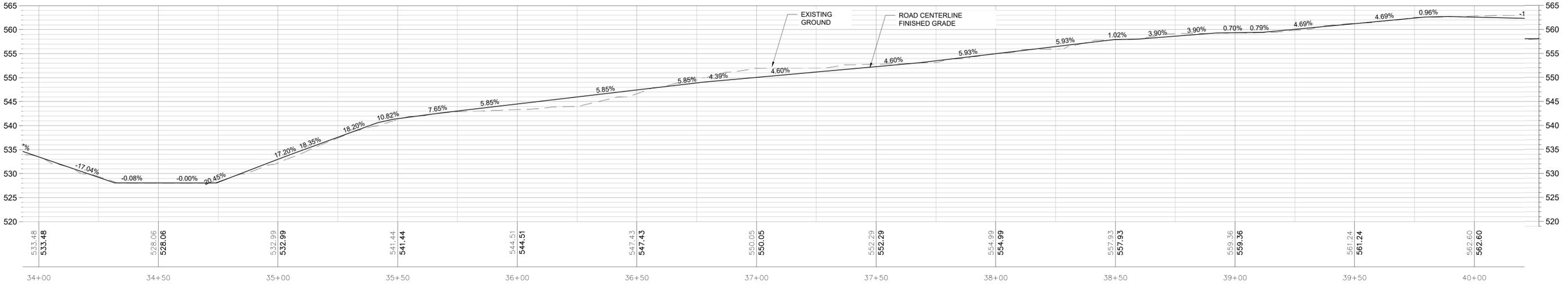
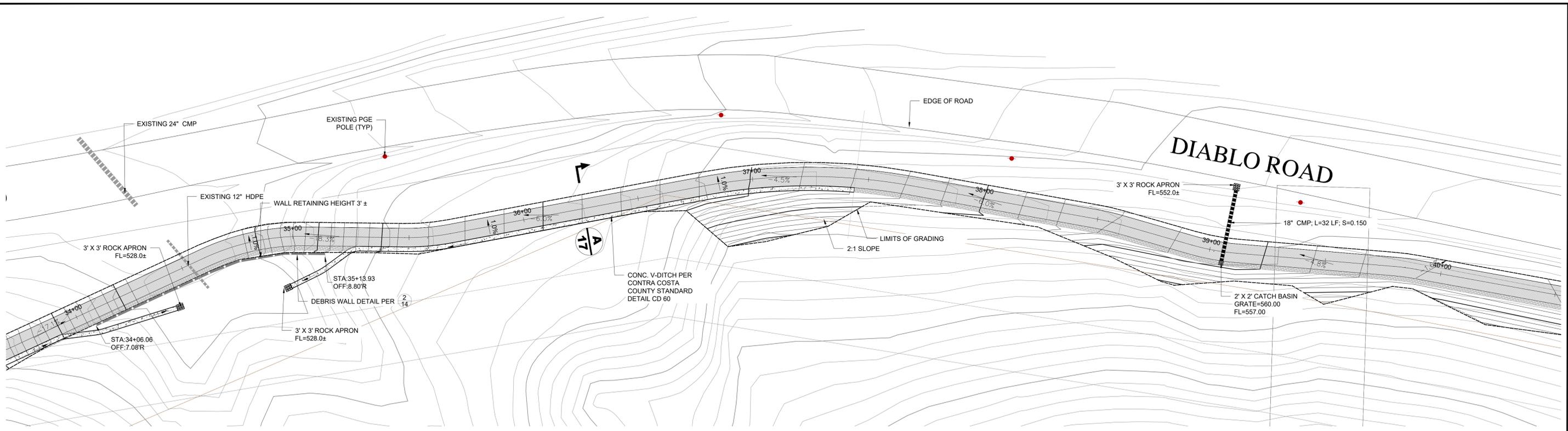
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**PLAN AND PROFILE STA: 28+00 - 34+00**  
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
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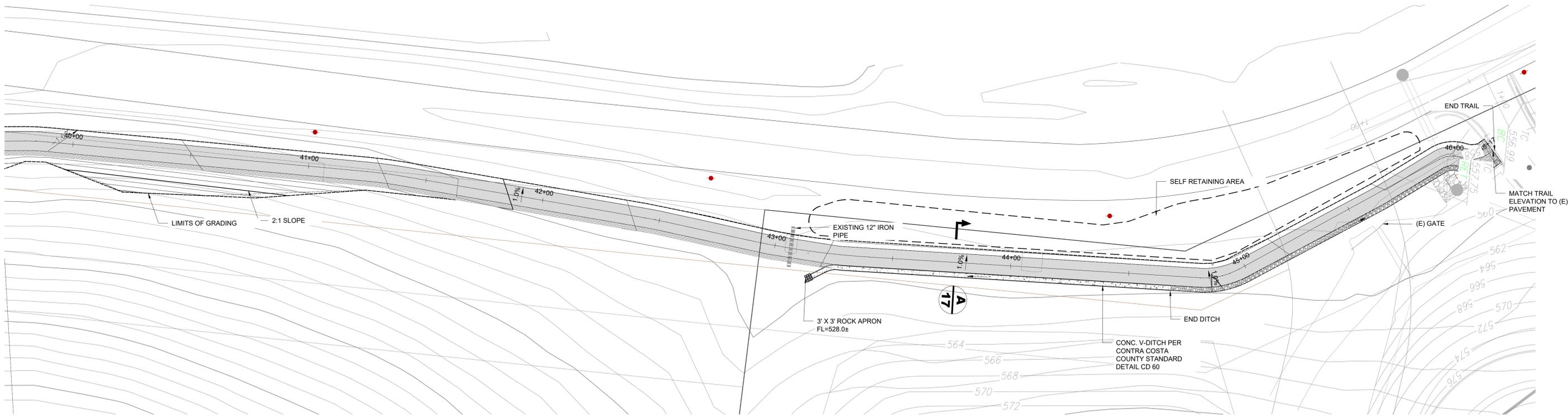


**PLAN AND PROFILE STA: 34+00 - 40+00**  
 IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
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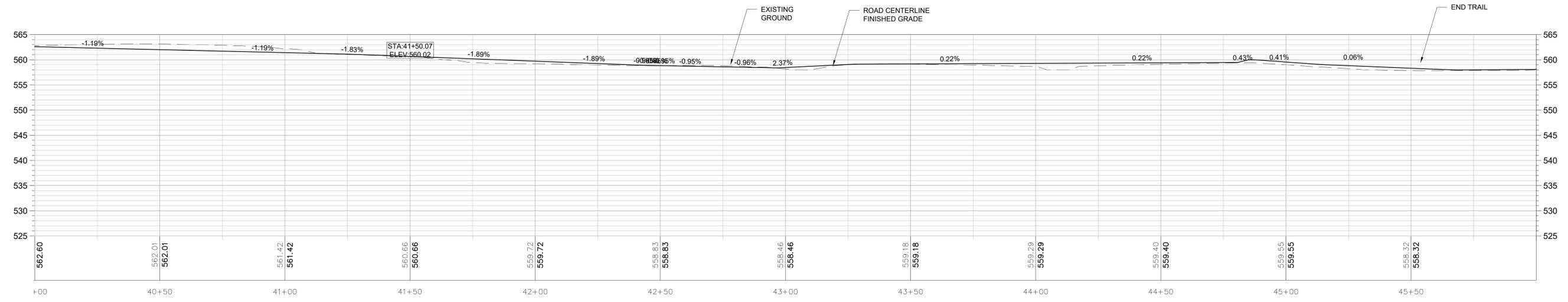
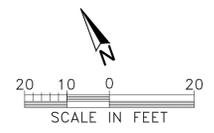
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PLAN VIEW  
SCALE: 1"=20'



PROFILE VIEW  
SCALE: 1"=20' (HORIZONTAL); 1"=10' (VERTICAL)



REV.	DATE	DESCRIPTION	BY

**ENGEO**  
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2010 CROW CANYON PLACE  
SUITE 250  
SAN RAMON, CALIFORNIA 94583-4634  
(925) 868-9000  
(888) 279-2698

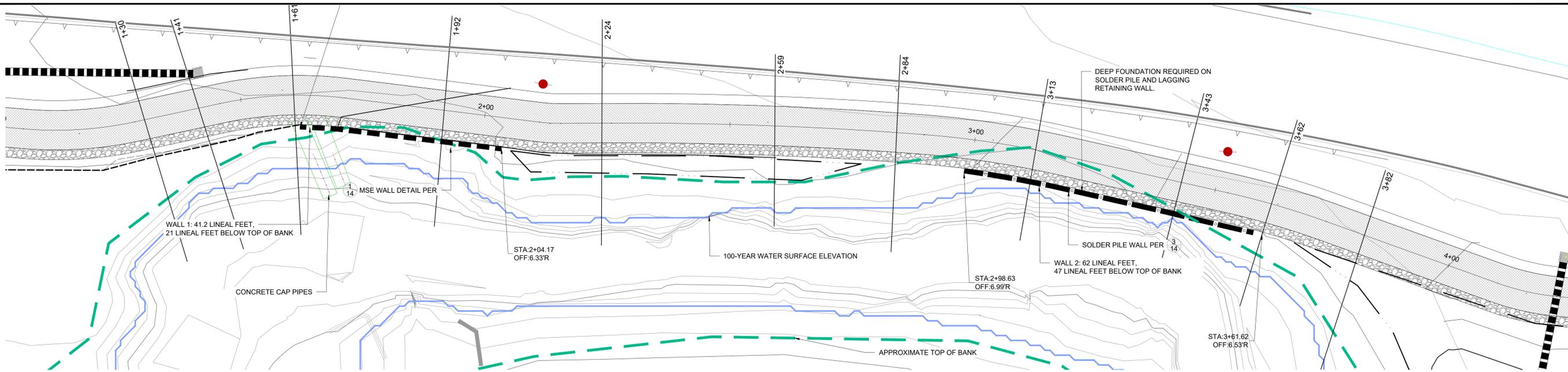
CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY: SPC  
DRAWN BY: JDB  
CHECKED BY: JDB  
DATE: MAY 2024  
SCALE: AS SHOWN



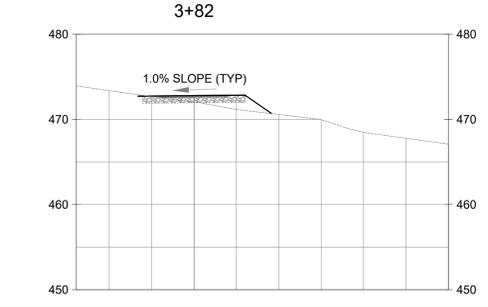
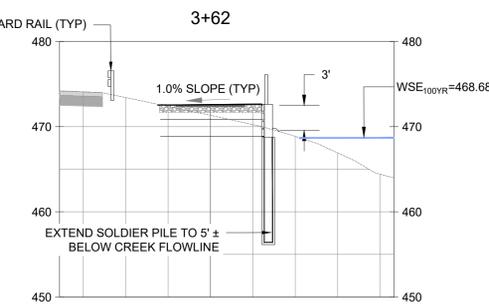
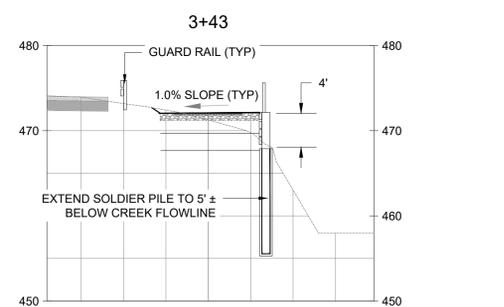
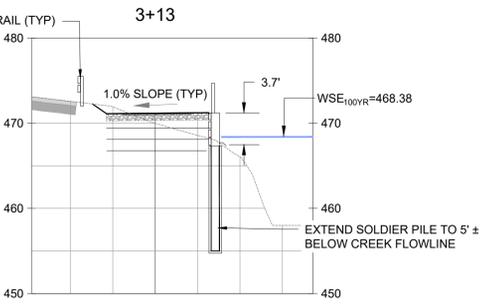
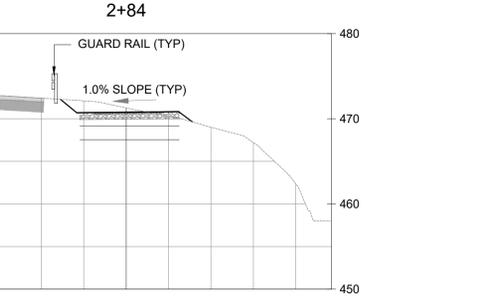
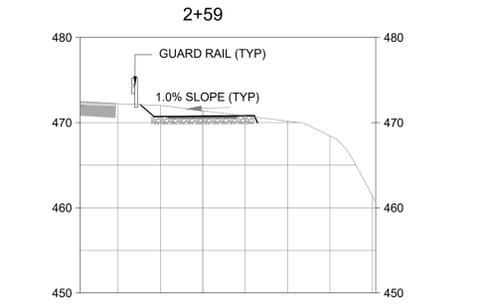
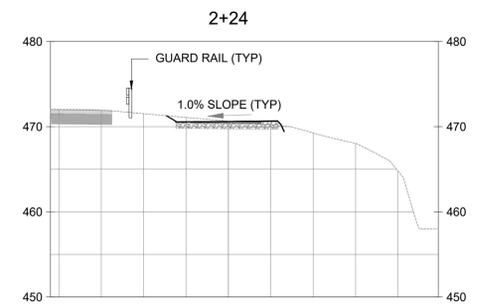
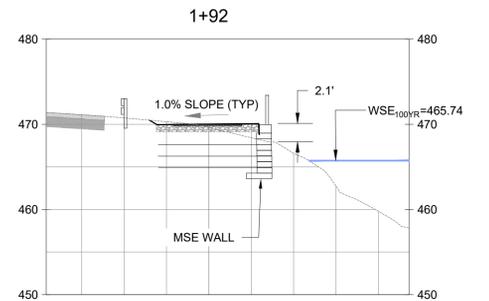
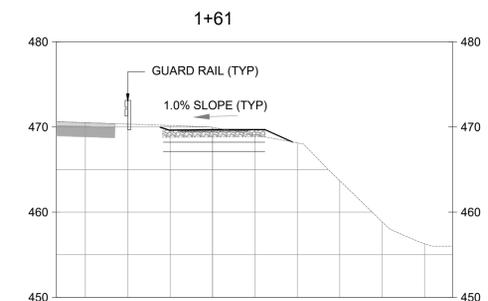
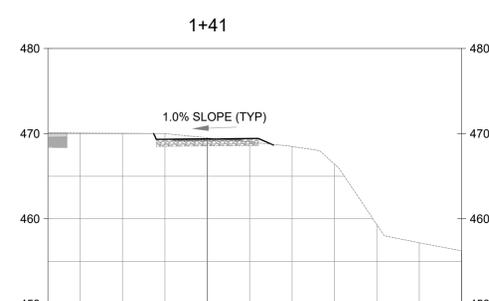
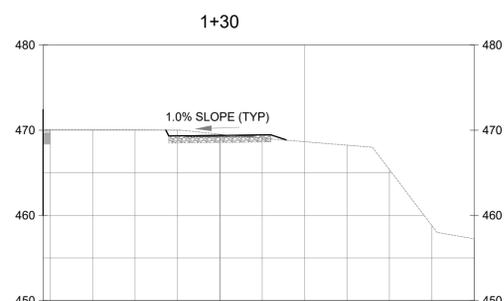
**PLAN AND PROFILE STA: 40+00 - 45+50**  
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER  
**10**  
OF 20 SHEETS  
PROJECT NO.  
8870.000.011



**PLAN VIEW**

SCALE: 1"=10'



**CROSS SECTIONS**

SCALE: 1"=10', SCALE FACTOR 1:1 (H:V)



REV.	DATE	DESCRIPTION	BY

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(866) 279-2698

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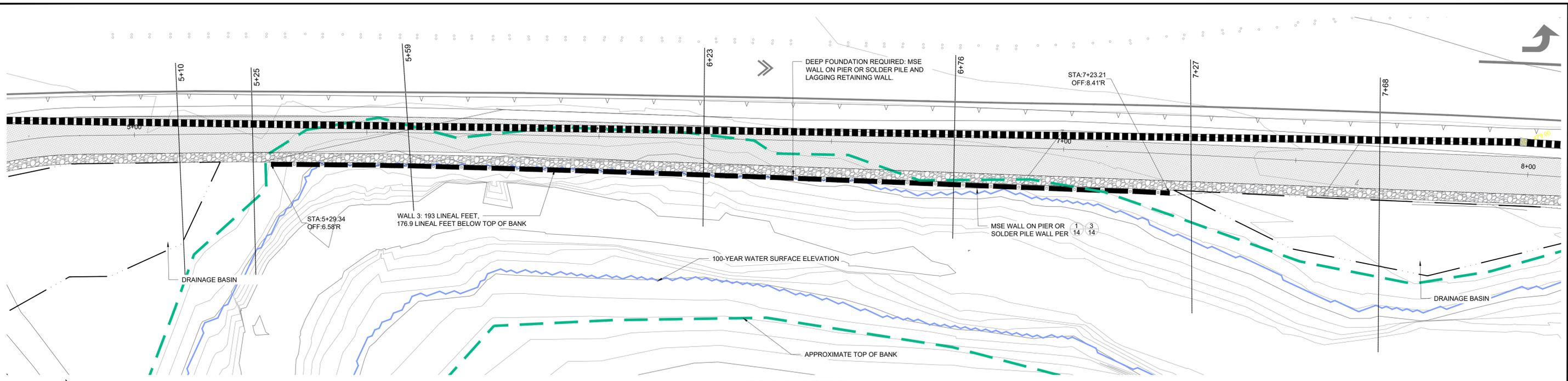
DESIGNED BY: SPC  
DRAWN BY: JDB  
CHECKED BY: JDB  
DATE: MAY 2024  
SCALE: AS SHOWN



**EMBANKMENT 1 CROSS SECTIONS**  
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
TOWN OF DANVILLE, CALIFORNIA

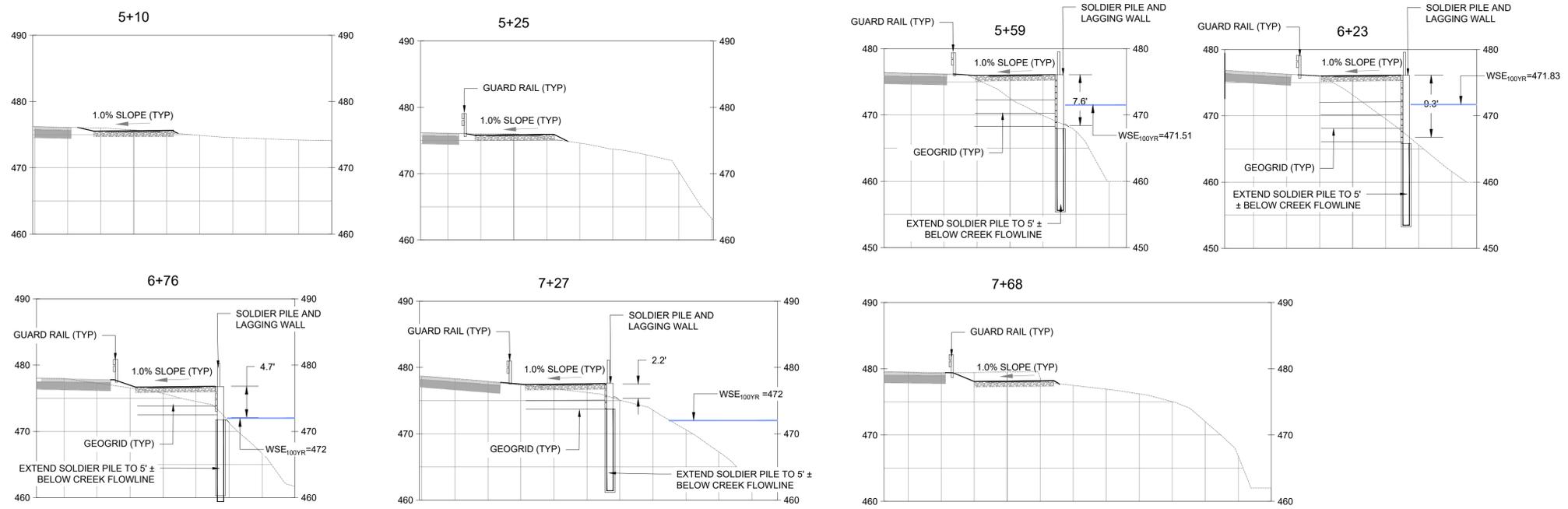
SHEET NUMBER  
**11**  
OF 20 SHEETS  
PROJECT NO.  
8870.000.011

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**PLAN VIEW**

SCALE: 1"=10'



**CROSS SECTIONS**

SCALE: 1"=10', SCALE FACTOR 1:1 (H:V)



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DESIGNED BY: SPC  
DRAWN BY: JDB  
CHECKED BY: JDB  
DATE: MAY 2024  
SCALE: AS SHOWN

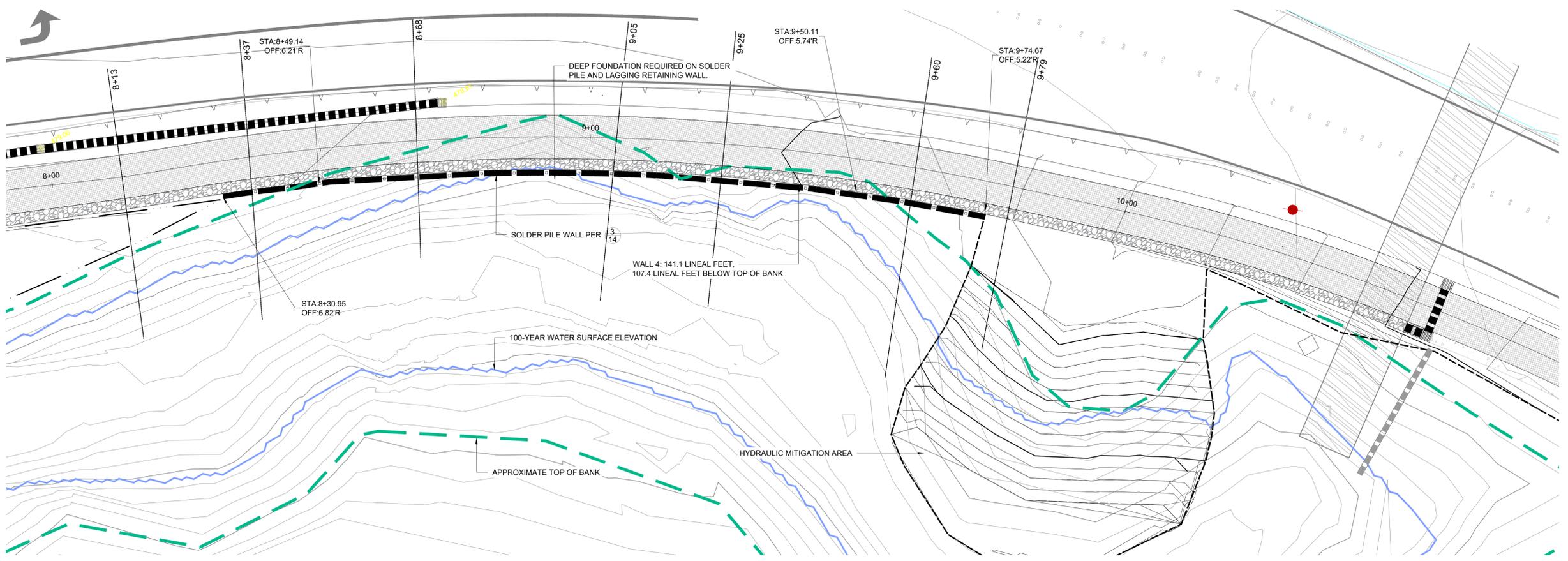


**EMBANKMENT 2 CROSS SECTIONS**  
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER  
**12**  
OF 20 SHEETS  
PROJECT NO.  
8870.000.011

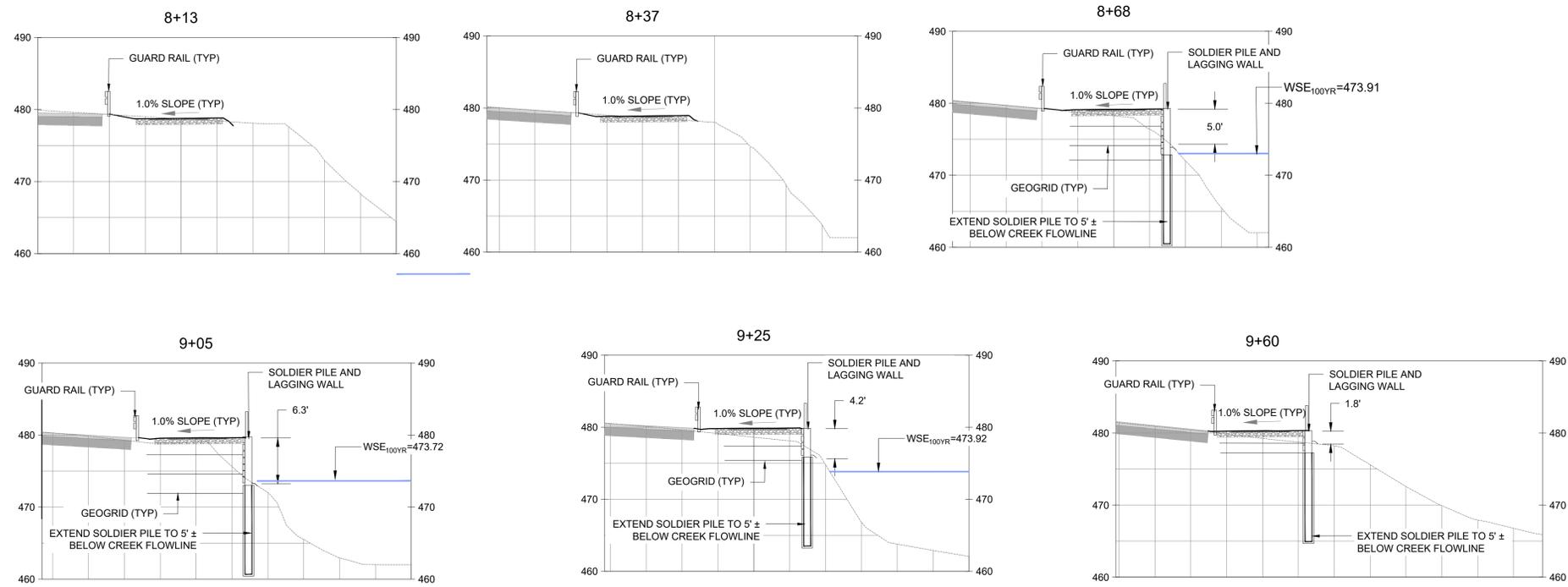
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**PLAN VIEW**

SCALE: 1"=10'



**CROSS SECTIONS**

SCALE: 1"=10', SCALE FACTOR 1:1 (H:V)



REV.	DATE	DESCRIPTION	BY

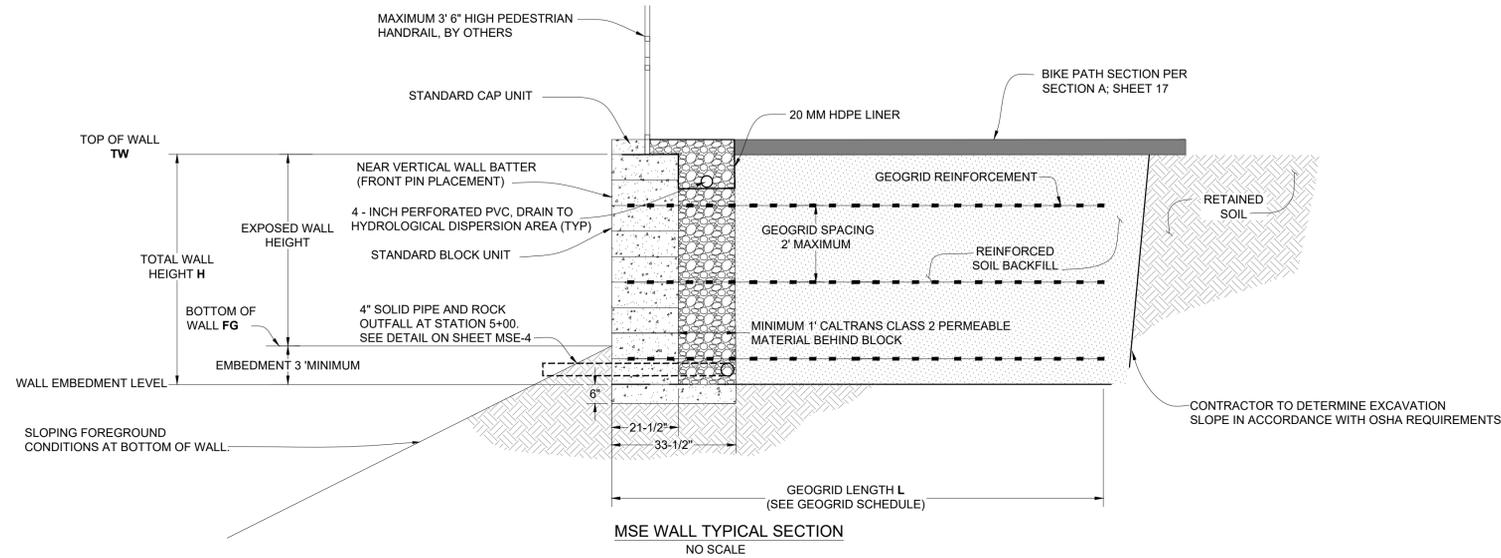
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 SCALE: AS SHOWN



**EMBANKMENT 3 CROSS SECTIONS**  
 IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
 TOWN OF DANVILLE, CALIFORNIA

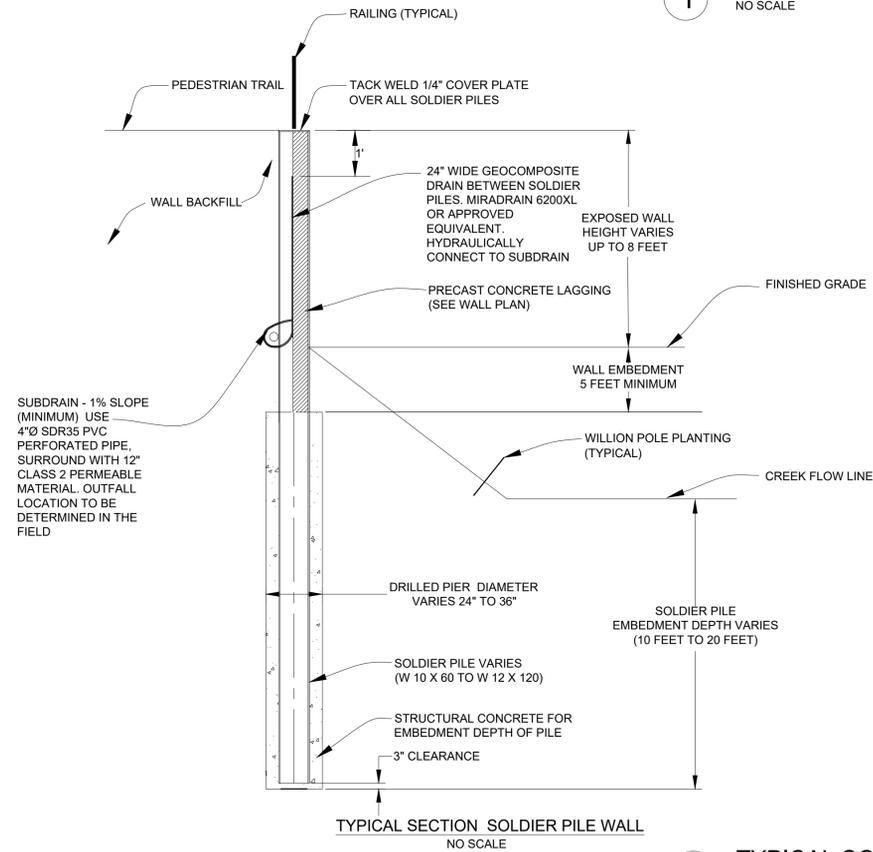
SHEET NUMBER  
**13**  
 OF 20 SHEETS  
 PROJECT NO.  
 8870.000.011



**MSE RETAINING WALL - GEOGRID SCHEDULE**

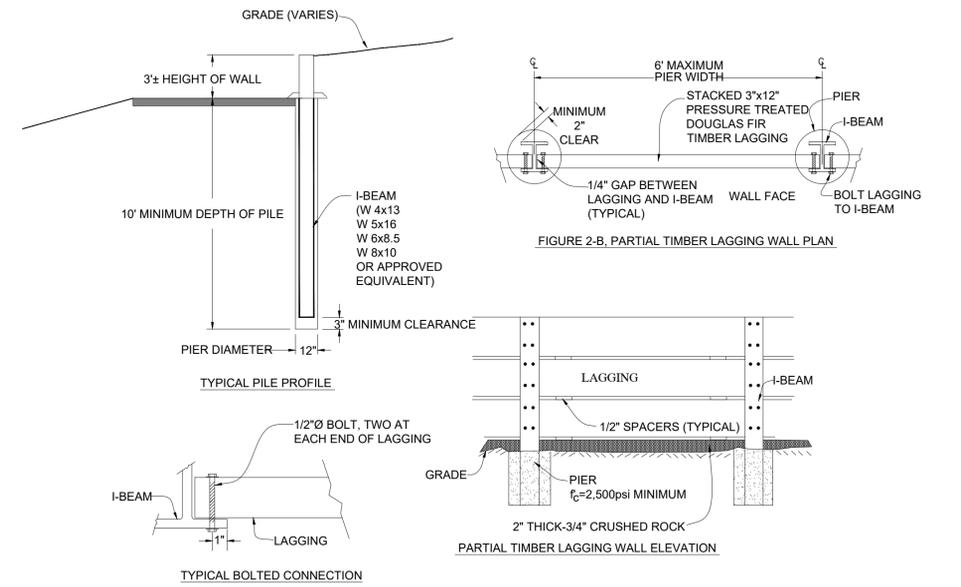
EXPOSED WALL HEIGHT ABOVE GROUND (FT)	TOTAL WALL HEIGHT INCLUDING EMBEDMENT H	MIRAFI GEOGRID TYPE	GEOGRID LENGTH L	GEOGRID ELEVATIONS MEASURED FROM BOTTOM OF WALL
2'	5'	7XT	7.5'	1.33'/3.33'
4'	7'	7XT	9.5'	1.33'/3.33'/5.33'
6'	9'	7XT	11.5'	1.33'/3.33'/5.33'/7.33'
8'	11'	7XT	13.5'	1.33'/3.33'/5.33'/7.33'/9.33'

**1 TYPICAL MSE WALL DETAIL**  
NO SCALE

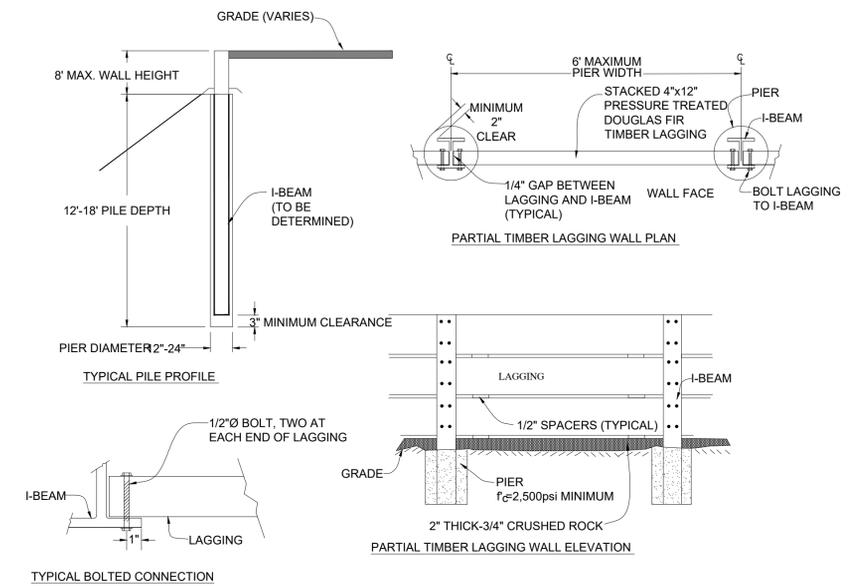


**4 TYPICAL SOLDIER PILE WALL DETAIL**  
NO SCALE

- SOLDIER PILES, CONCRETE, AND REINFORCING NOTES**
1. STEEL SOLDIER PILES SHALL BE MINIMUM ASTM A50 STEEL WITH A MINIMUM YIELD STRESS(F<sub>y</sub>) OF 50 KSI.
  2. CONCRETE FOR DRILLED PIERS SHALL BE MINIMUM 3,000 PSI @ 28 DAYS.
  3. LAGGING SHALL CONSIST OF PRECAST CONCRETE WITH REINFORCEMENT. PRECAST CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
  4. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60 DEFORMED BARS. WELDED WIRE MESH REINFORCEMENT SHALL HAVE A MINIMUM YIELD STRESS(F<sub>y</sub>) OF 50 KSI.



**2 TYPICAL DEBRIS WALL DETAIL**  
NO SCALE



**3 TYPICAL SOLDIER PILE AND LAGGING DEBRIS RETAINING WALL DETAIL**  
NO SCALE



REV.	DATE	DESCRIPTION	BY

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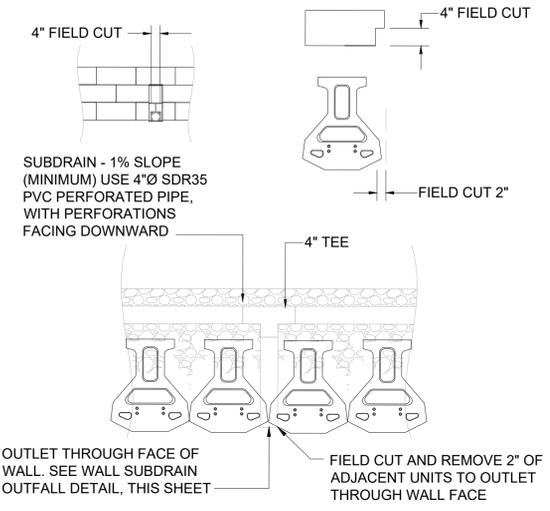
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CHECKED BY: JDB  
DATE: MAY 2024  
SCALE: AS SHOWN



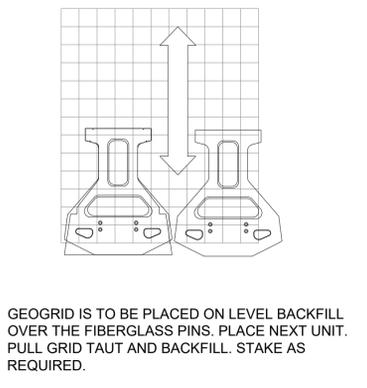
**WALL DETAILS**  
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER  
**14**  
OF 20 SHEETS  
PROJECT NO.  
8870.000.011

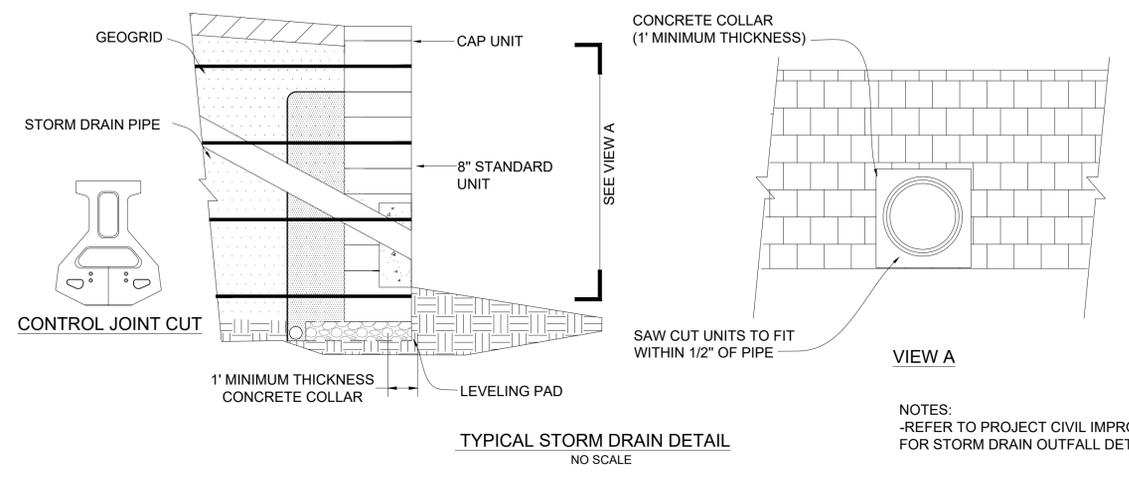
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**DRAIN DETAIL**  
NO SCALE

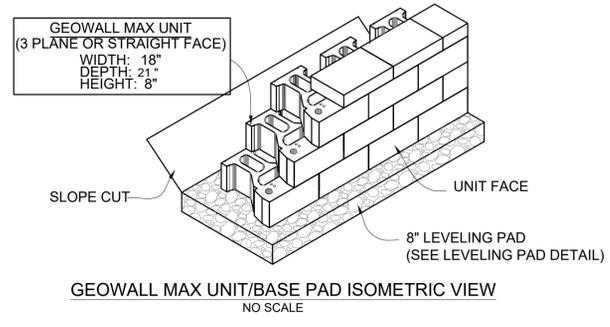


**FRICTIONAL CONNECTION**  
NO SCALE

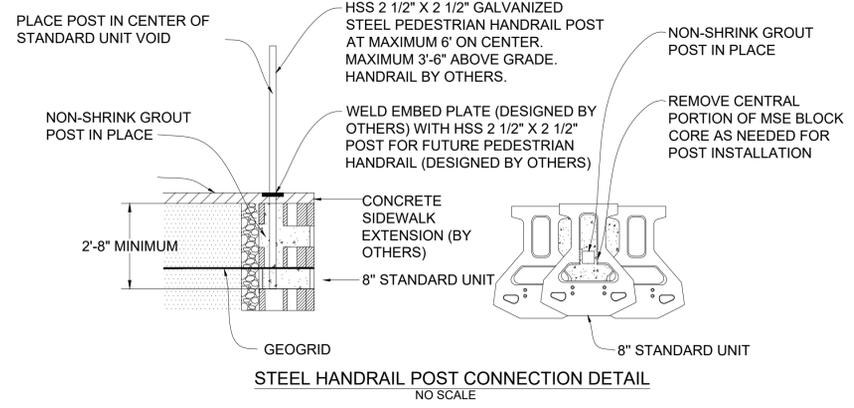


**TYPICAL STORM DRAIN DETAIL**  
NO SCALE

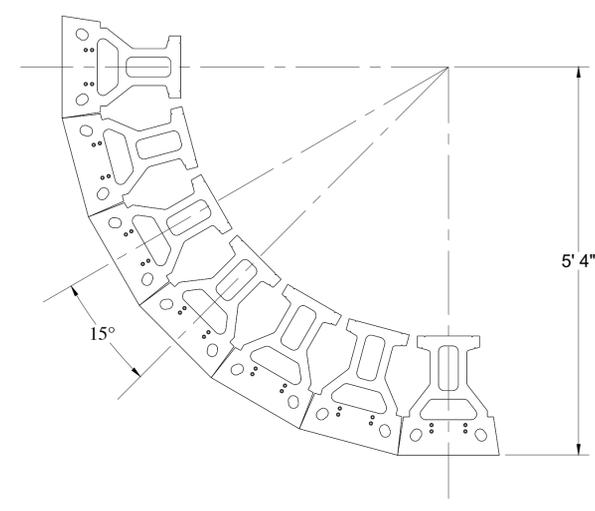
NOTES:  
-REFER TO PROJECT CIVIL IMPROVEMENT PLANS FOR STORM DRAIN OUTFALL DETAIL.



**GEOWALL MAX UNIT/BASE PAD ISOMETRIC VIEW**  
NO SCALE

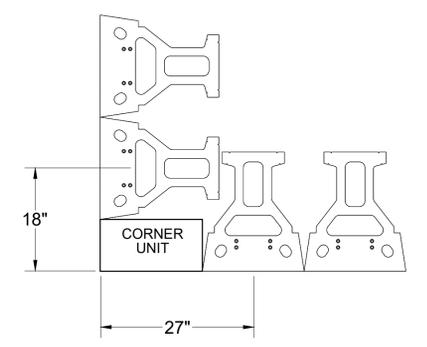


**STEEL HANDRAIL POST CONNECTION DETAIL**  
NO SCALE

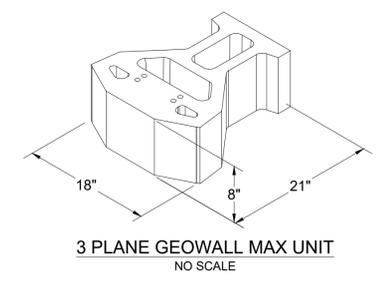


**RADIUS DETAIL (PLAN)**  
NO SCALE

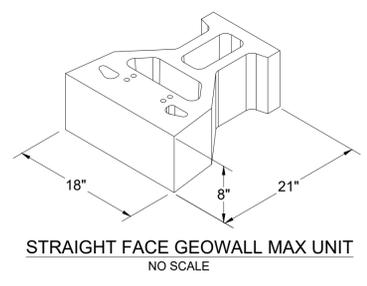
NOTE:  
CORNERS AND RADII ARE TO BE CONSTRUCTED AS SPECIFIED IN THE CURRENT BASALITE CONSTRUCTION MANUAL.



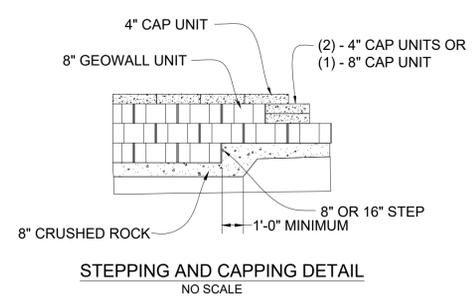
**CORNER DETAIL (PLAN)**  
NO SCALE



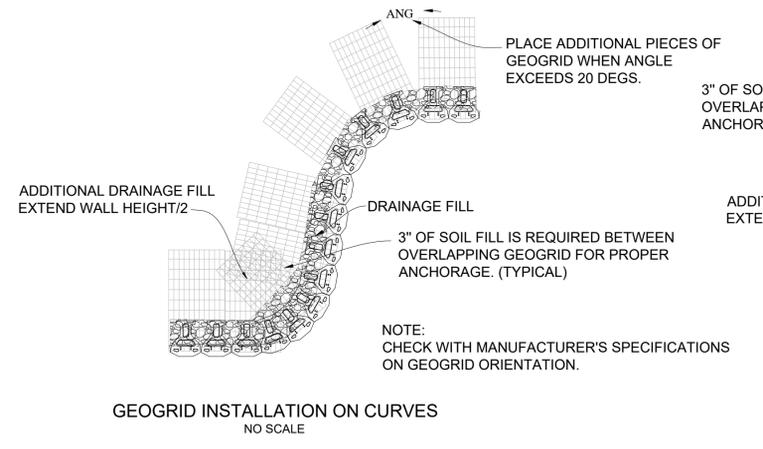
**3 PLANE GEOWALL MAX UNIT**  
NO SCALE



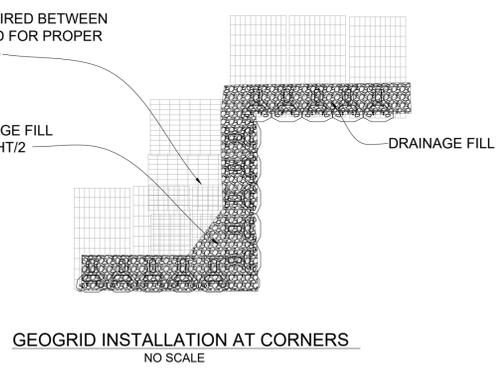
**STRAIGHT FACE GEOWALL MAX UNIT**  
NO SCALE



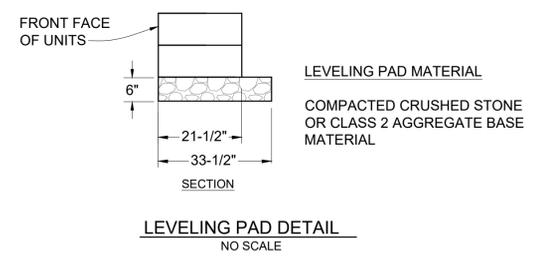
**STEPPING AND CAPPING DETAIL**  
NO SCALE



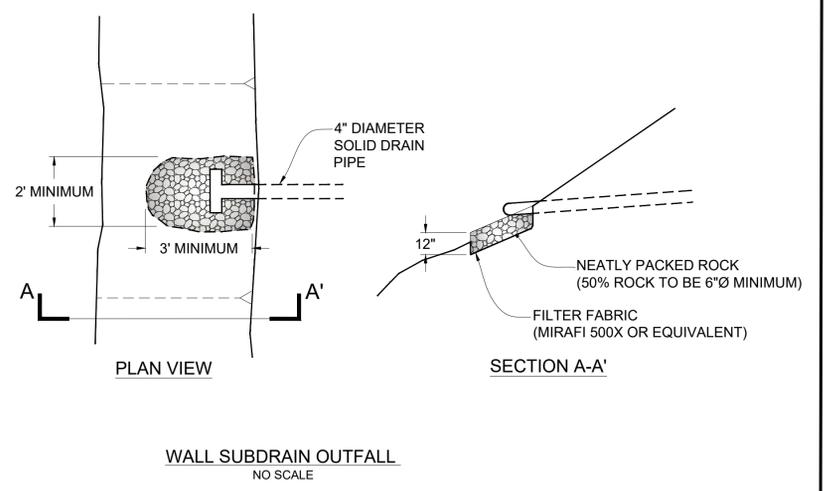
**GEOGRID INSTALLATION ON CURVES**  
NO SCALE



**GEOGRID INSTALLATION AT CORNERS**  
NO SCALE



**LEVELING PAD DETAIL**  
NO SCALE



**WALL SUBDRAIN OUTFALL**  
NO SCALE



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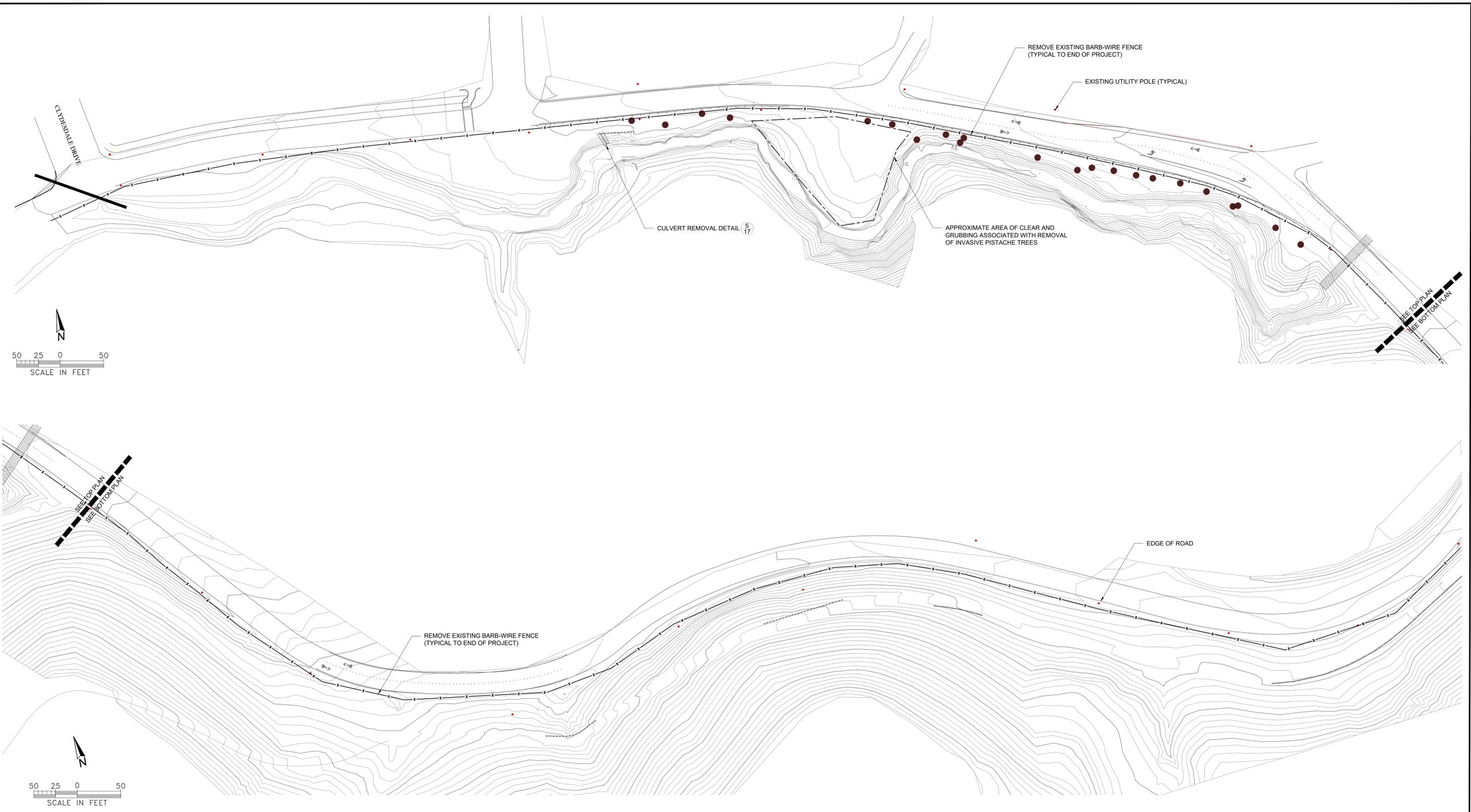
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 DRAWN BY: JDB  
 CHECKED BY: JDB  
 DATE: MAY 2024  
 SCALE: AS SHOWN



**WALL DETAILS**  
 IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
 TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER  
**15**  
 OF 20 SHEETS  
 PROJECT NO.  
 8870.000.011

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**EXPLANATION**  
 ● EXISTING TREES TO BE REMOVED

- Notes:**
1. EXISTING BARBWIRE FENCE TO BE REMOVED IN COORDINATION WITH CONSTRUCTION OF NEW FENCE PER PLAN SHEETS 17-19 AND AS APPROVED BY THE TOWN.
  2. TREE REMOVAL SHOWN HERE SHALL BE PERFORMED IN ACCORDANCE WITH ARBORIST REPORT PREPARED FOR THE PROJECT BY TRAVERSO TREE DATED APRIL 2022 AND ANY SUPPLEMENTAL RECOMMENDATIONS FROM ENGEO INCORPORATED.



REV.	DATE	DESCRIPTION	BY

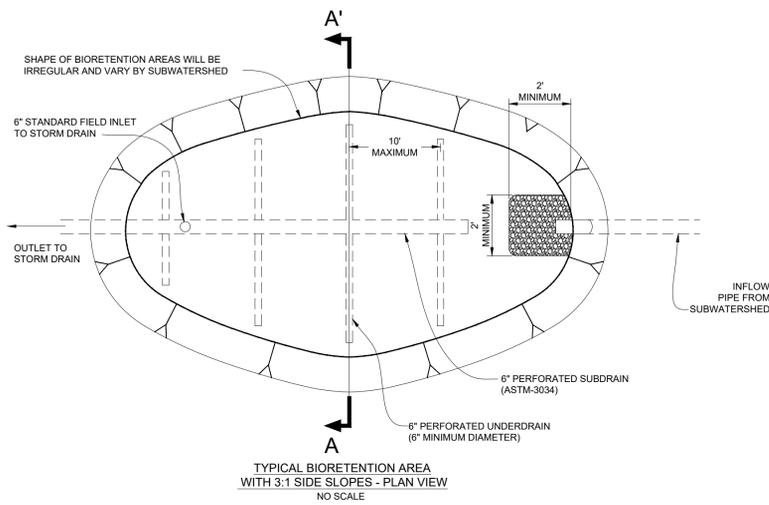

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 CHECKED BY: JDB  
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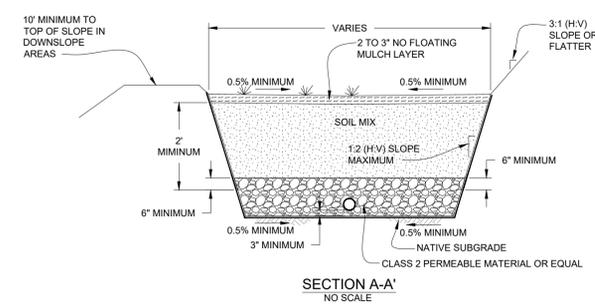


**DEMOLITION PLAN**  
 IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
 TOWN OF DANVILLE, CALIFORNIA

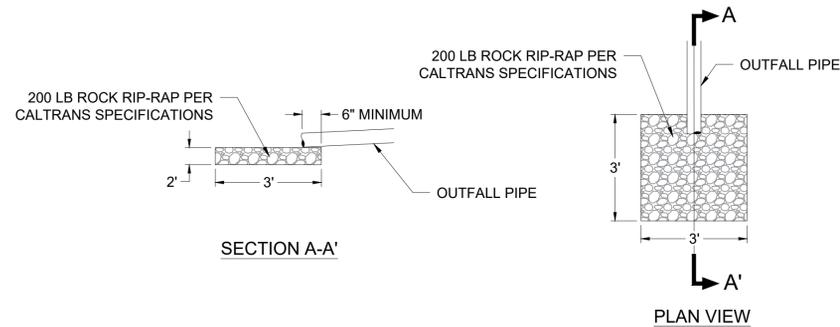
SHEET NUMBER  
**16**  
 OF 20 SHEETS  
 PROJECT NO.  
 8870.000.011



TYPICAL BIORETENTION AREA WITH 3:1 SIDE SLOPES - PLAN VIEW  
NO SCALE



1 TYPICAL BIORETENTION DETAIL  
NO SCALE



2 TYPICAL ROCK RIP-RAP APRON DETAIL  
NO SCALE

DROP INLET			
MODEL NO.	A	B	*WEIGHT
DI242436	36"	42"	1900 LBS.
DI242448	48"	54"	2500 LBS.
*BOX ONLY			

FRAME AND GRATE			
MODEL NO.	RATING	D	WEIGHT
SG2424-DIP	PEDESTRIAN	1/2"	41 LBS.
SG2424-DIT	TRAFFIC	3"	120 LBS.

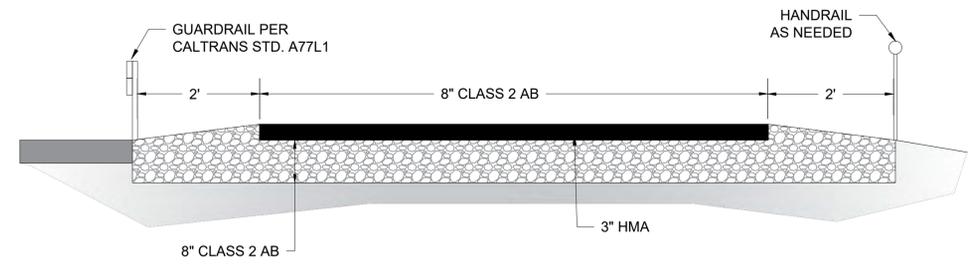
EXTENSION		
MODEL NO.	C	WEIGHT
RS242406	6"	300 LBS.
RS242412	12"	600 LBS.

■ FRAME AND GRATE ASSEMBLY AVAILABLE IN TRAFFIC OR PEDESTRIAN MODELS.  
 ■ DESIGN FOR H-20-44 BRIDGE LOADING.  
 ■ ASSEMBLY TO BE PLACED ON A 6" BASE OF CRUSHER RUN FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION.  
 ■ FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.

■ ILLUSTRATION IS TYPICAL ONLY OF GENERAL SERIES CONFIGURATION. FOR SPECIFIC CONFIGURATION, CALL JENSEN PRECAST.

**24" X 24" DRAIN INLET**  
 11-28-00  
**JENSEN PRECAST**  
 DI2424

4 TYPICAL FIELD INLET DETAIL  
NO SCALE

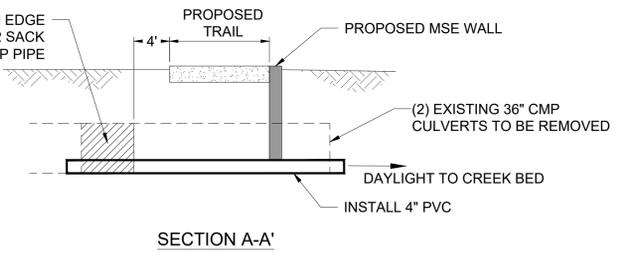
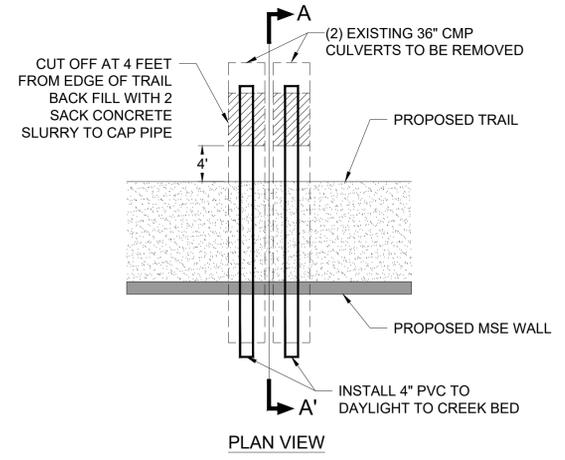


PAVEMENT CONSTRUCTION

PAVEMENT CONSTRUCTION AND ALL MATERIALS SHOULD CONFORM TO THE SPECIFICATIONS AND REQUIREMENTS OF THE STANDARD SPECIFICATIONS BY THE DIVISION OF HIGHWAYS, DEPARTMENT OF PUBLIC WORKS, STATE OF CALIFORNIA, LATEST EDITION, TOWN OF DANVILLE REQUIREMENTS, AND THE FOLLOWING MINIMUM REQUIREMENTS.

- ALL PAVEMENT SUBGRADES SHOULD BE SCARIFIED TO A DEPTH OF 12 INCHES BELOW FINISHED SUBGRADE ELEVATION, MOISTURE CONDITIONED TO AT LEAST 4 PERCENTAGE POINTS ABOVE OPTIMUM, AND COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION AND IN ACCORDANCE WITH CITY REQUIREMENTS.
- SUBGRADE SOIL SHOULD BE IN A STABLE, NON-PUMPING CONDITION AT THE TIME AGGREGATE BASE MATERIALS ARE PLACED AND COMPACTED.
- AGGREGATE BASE MATERIALS SHOULD MEET CURRENT CALTRANS SPECIFICATIONS FOR CLASS 2 AGGREGATE BASE AND SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AT A MINIMUM OF 2 PERCENTAGE POINTS ABOVE OPTIMUM IN ACCORDANCE WITH ASTM D1557.
- ASPHALT PAVING MATERIALS SHOULD MEET CURRENT CALTRANS SPECIFICATIONS FOR ASPHALT CONCRETE

3 TYPICAL TRAIL SECTION  
NO SCALE



5 TYPICAL CULVERT REMOVAL DETAIL  
NO SCALE



REV.	DATE	DESCRIPTION	BY

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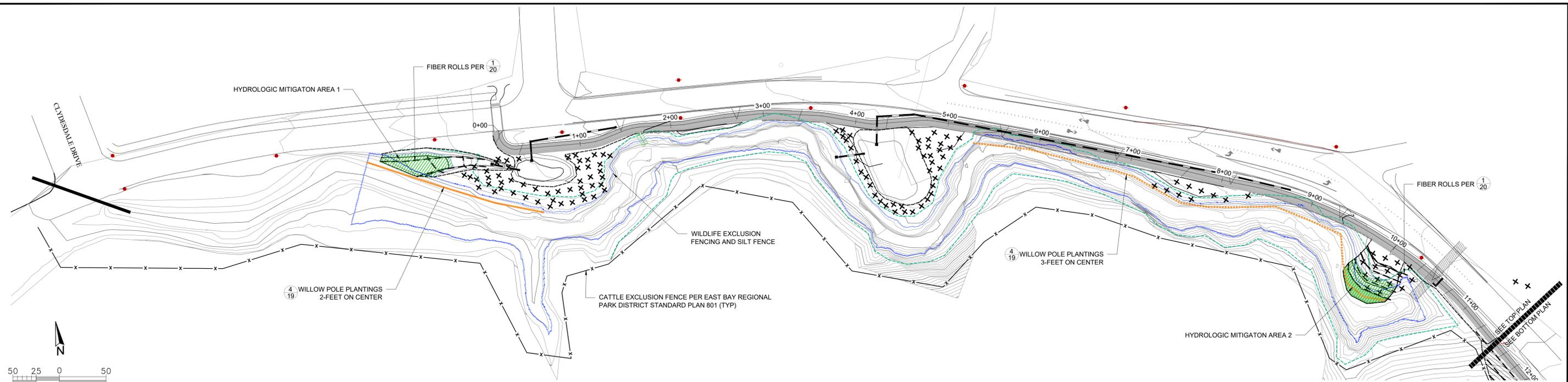
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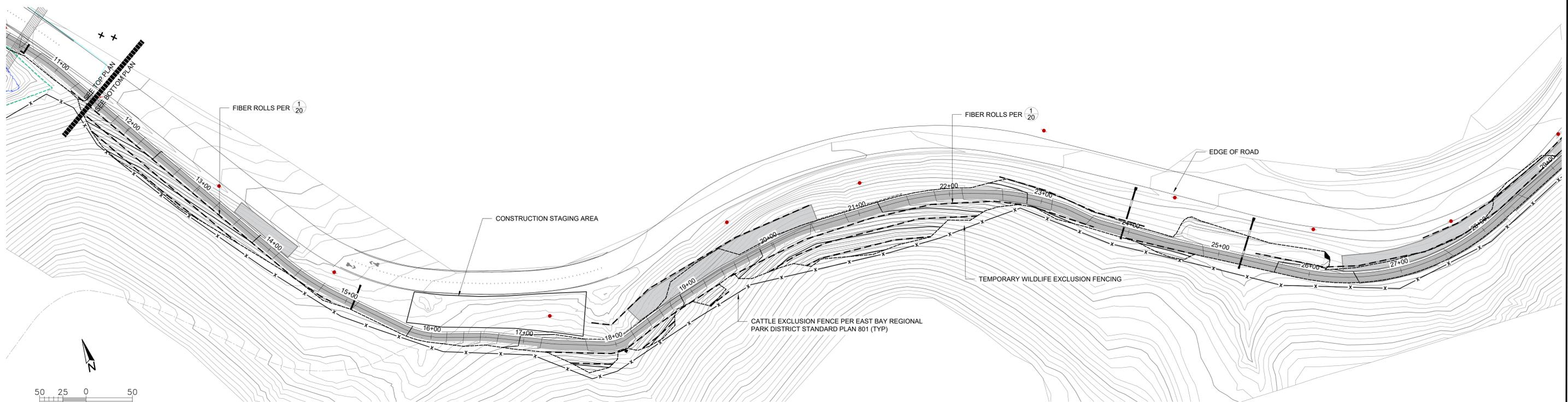
**CONSTRUCTION DETAILS**  
 IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
 TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER  
**17**  
 OF 20 SHEETS  
 PROJECT NO.  
 8870.000.011

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FENCING, PLANTING, AND EROSION & SEDIMENT CONTROL PLAN (STA: 0+00 - 11+50)  
SCALE: 1"=50'



FENCING, PLANTING, AND EROSION & SEDIMENT CONTROL PLAN (STA: 11+50 - 29+00)  
SCALE: 1"=50'

**EXPLANATION**

— — — — —	CATTLE EXCLUSION FENCE
— — — — —	VEGETATION PROTECTION FENCE
— — — — —	STRAW WATTLES
x	UPLAND TREE INSTALLATION (SEE DETAIL SHEET 19)
•	WILLOW POLE PLANTING

**Note:**  
 1. EXACT LOCATION OF UPLAND TREE SPECIES TO BE DETERMINED IN FIELD BY RESTORATION ECOLOGIST. TREES SHALL CONSIST OF CALIFORNIA OAK (QUERCUS SPP.) AND CALIFORNIA BUCKEYE (AESCLUSUS SPP.). 123 TREES ARE REQUIRED PER THE TREE REPLACEMENT PLANTING AND MITIGATION PLAN PREPARED BY SEQUOIA ECOLOGICAL CONSULTING INC. DATE APRIL 2024.



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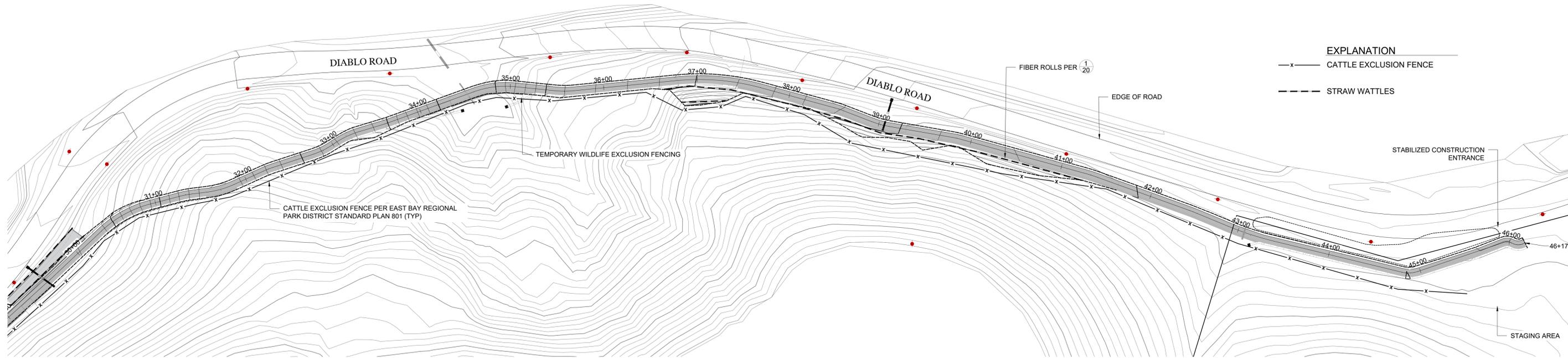
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DESIGNED BY: SPC  
 DRAWN BY: JDB  
 CHECKED BY: JDB  
 DATE: MAY 2024  
 SCALE: AS SHOWN

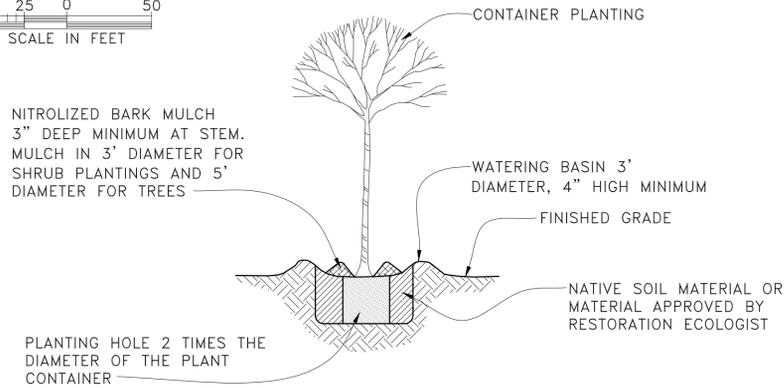
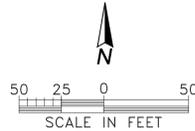


**FENCING, PLANTING AND EROSION AND SEDIMENT CONTROL PLAN**  
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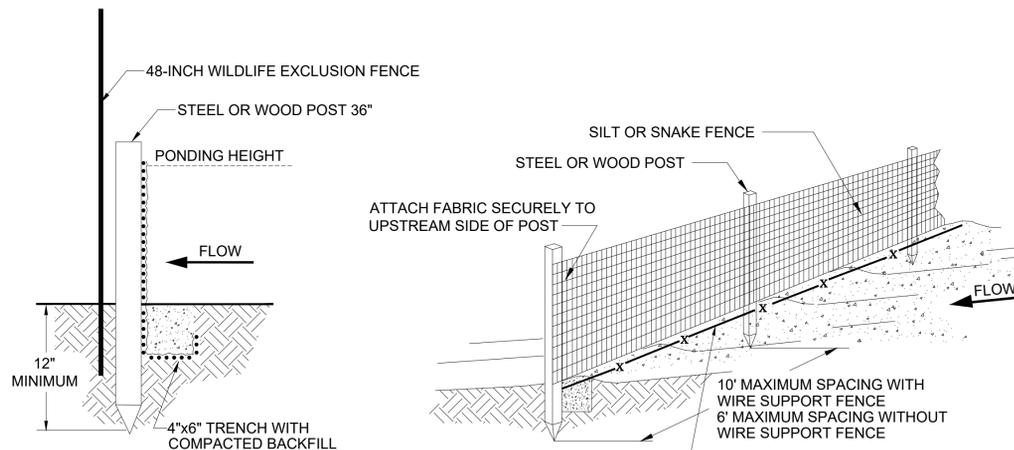


FENCING, PLANTING, AND EROSION & SEDIMENT CONTROL PLAN (STA: 29+00 - 45+55)  
SCALE: 1"=50'



1. SCALP TREE POSITION CLEAR OF ANNUAL GRASS AND FORBS. 5' IN DIAMETER FOR TREES AND 3' IN DIAMETER FOR SHRUBS.
2. IN ENGINEERED FILL MATERIAL, AUGER PLANTING HOLE AND AUGER SIDES OF HOLE PRIOR TO BACKFILLING.
3. FOR SIZE AND SPACING REQUIREMENTS REFER TO PLANTING PLAN.

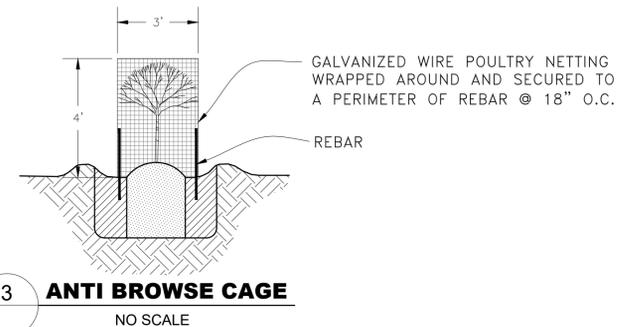
1 **TYPICAL CONTAINER PLANTING**  
NO SCALE



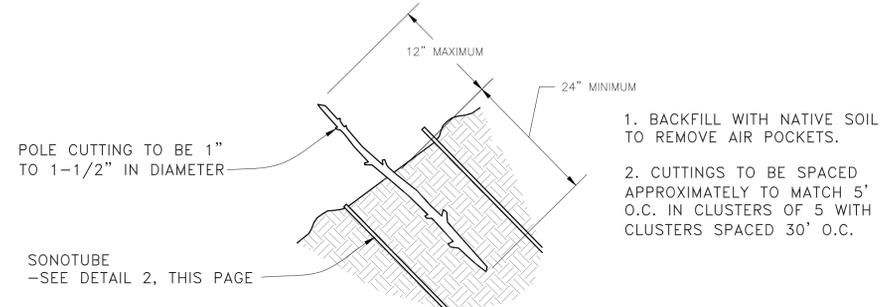
- NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY, 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
  2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
  3. STOP FENCE AT TOP OF BANK OF ALL DRAINAGES.
  4. INSTALL WILDLIFE EXCLUSION FENCE DOWNSLOPE OF SILT FENCE PER PROJECT STREAMBED ALTERATION AGREEMENT.

SOURCE: JOHN McCULLAH, 1994

2 **SILT FENCE / WILDLIFE FENCING DETAIL**  
NO SCALE



3 **ANTI BROWSE CAGE**  
NO SCALE



4 **TYPICAL WILLOW PLANTING**  
NO SCALE



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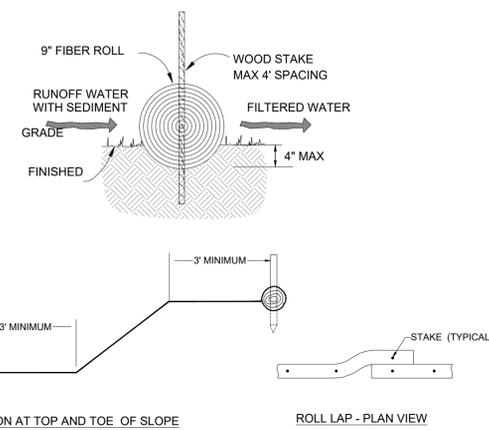


**FENCING AND EROSION CONTROL PLAN**  
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL  
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FIBER ROLL LOCATION AT TOP AND TOE OF SLOPE      ROLL LAP - PLAN VIEW

- NOTES:**
1. PREPARE SLOPE BEFORE THE FIBER ROLL PROCEDURE IS STARTED.
  2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 4" DEEP, ON CONTOUR OR AS SHOWN ON PLANS.
  3. USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE FIBER ROLL AND INTO THE SOIL FOR WOODEN STAKES.
  4. DRIVE THE STAKE THROUGH THE PREPARED HOLE INTO THE SOIL. LEAVE ONLY ONE OR TWO INCHES OF STAKE EXPOSED ABOVE FIBER ROLL.
  5. INSTALL STAKES THREE FEET ON CENTER THROUGH THE LENGTH OF THE FIBER ROLL.
  6. ADJACENT FIBER ROLLS SHALL TIGHTLY ABUT AND OVERLAP A MINIMUM OF 3 FEET.
  7. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.
  8. INSTALL AT LOCATIONS SHOWN ON PLANS. IN SLOPE AREAS SPACE FIBER ROLLS EVERY 10 VERTICAL FEET ON SLOPE.

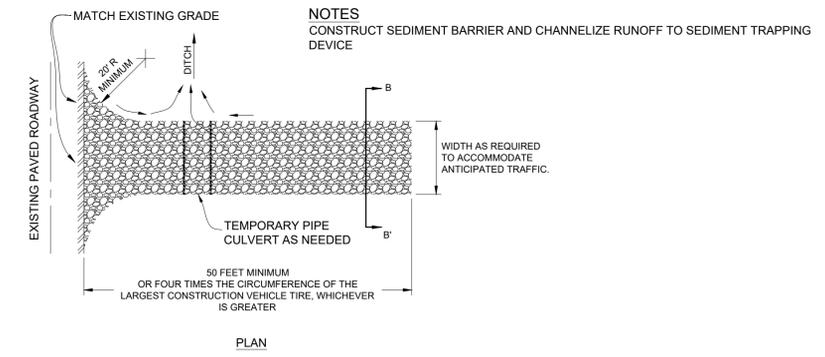
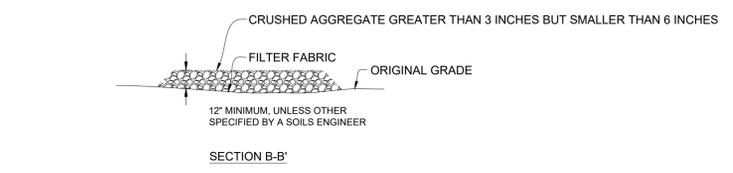
**1 FIBER ROLL DETAIL**  
NO SCALE

**SEED MIX**

SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND RE-VEGETATION. ALL AREA DISTURBED DURING INSTALLATION MUST BE RESEED. SEED SHOULD CONSIST OF THE FOLLOWING MIX OR APPROVED EQUIVALENT APPLIED WITHIN LIMITS INDICATED BELOW:

SEED MIX	
REGREEN (ELYMUS X TRITICUM)	12.0 LBS/ACRE
CREeping WILDryE (LEYMUS TRITICOIDES)	8.0 LBS/ACRE
BLUE WILDryE (ELYMUS CLAUcUS)	8.0 LBS/ACRE
MEADow BALEy (HORDEUM BRACHYANTHERUM)	4.0 LBS/ACRE
MUGWORT (ARTEMESIA DOUGLASIANA)	4.0 LBS/ACRE
CALIFORNIA MILKWEED OR EQUAL (ASCLEPIAS SPP.)	0.5 LBS/ACRE
<b>TOTAL (LBS/ACRE)</b>	<b>36.5 LBS/ACRE</b>

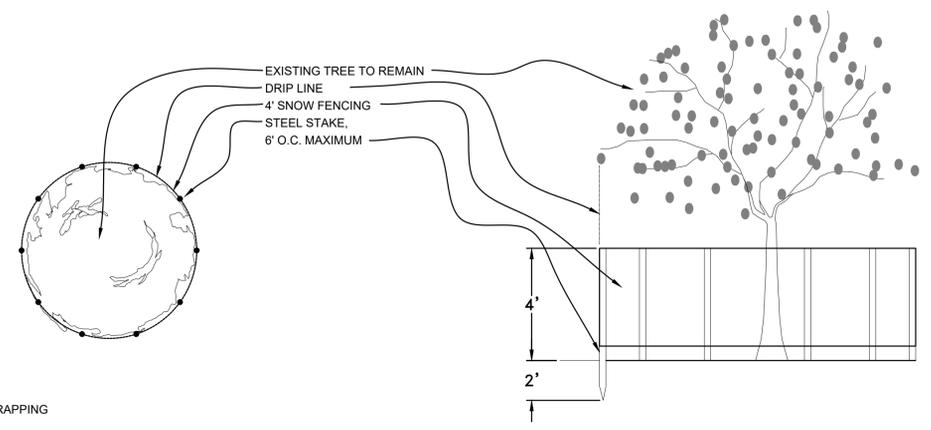
SEED WILL BE MEASURED BY THE POUND. THE CONTRACT PRICE FOR SEED SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS.



**2 STABILIZED CONSTRUCTION ENTRANCE**  
NO SCALE

**BASIC CONTROL MEASURES:**

1. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
2. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOS MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
3. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY (NON-TOXIC) SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES.
4. SWEEP STREETS DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PUBLIC STREETS.



**3 EXISTING TREE PROTECTIVE FENCING**  
NO SCALE

**EROSION AND SEDIMENT CONTROL NOTES**

1. EROSION CONTROL MEASURES SHALL BE EFFECTIVE FOR CONSTRUCTION DURING THE RAINY SEASON; OCTOBER 1 THROUGH APRIL 30 OR UNTIL VEGETATION IS ESTABLISHED ON DISTURBED AREAS.
2. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. IN GENERAL, THE CONTRACTOR IS RESPONSIBLE FOR KEEPING SEDIMENT-LADEN STORMWATER RUNOFF FROM LEAVING THE SITE. STRAW WATTLES, SAND BAGS, AND SILT FENCES SHALL BE USED BY THE CONTRACTOR ON AN AS NEEDED BASIS TO INHIBIT SILT FROM LEAVING THE SITE. ALL EXISTING, TEMPORARY, AREAS OF CONCENTRATED OVERLAND FLOW SHALL USE SEDIMENT BARRIERS UNTIL UPSTREAM SOILS ARE STABILIZED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES TO PUBLIC AND/OR PRIVATELY OWNED AND MAINTAINED ROADS CAUSED BY THE CONTRACTOR'S ACTIVITIES, AND SHALL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
4. BORROW AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES (TARPS, FIBER ROLL BARRIERS ETC.) TO ENSURE SILT DOES NOT LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM.
5. ALL TRUCK TIRES SHALL BE CLEANED PRIOR TO EXITING THE PROPERTY.
6. DURING PERIODS WHEN STORMS ARE FORECAST -
  - a. EXCAVATED SOILS SHOULD NOT BE PLACED IN STREETS OR ON PAVED AREAS.
  - b. WHERE STOCKPILING IS NECESSARY, USE A TARPULIN AND SURROUND THE STOCKPILED MATERIAL WITH A FIBER ROLL BARRIER OR OTHER RUNOFF CONTROLS.
  - c. THOROUGHLY SWEEP ALL PAVED AREAS EXPOSED TO SOIL EXCAVATION AND PLACEMENT.
 DURING PERIODS WHEN STORMS ARE NOT FORECAST -
  - a. PREVENT STOCKPILED MATERIAL FROM ENTERING THE STORM DRAIN SYSTEM.
  - b. THOROUGHLY REMOVE LOOSE SOIL VIA SWEEPING FOLLOWING REMOVAL OF DIRT.
7. TRAINING OF INSPECTION PERSONNEL WILL BE CONDUCTED PRIOR TO IMPLEMENTATION OF THE MONITORING PROGRAM. THE MONITORING PROGRAM SHALL INCLUDE REGULAR SITE INSPECTIONS AND REPORTS. MONITORING FORMS AND COMPLIANCE CERTIFICATION SHALL BE PROVIDED TO THE OWNER AND ENGINEER BY JULY 1 FOR THE PREVIOUS YEARS ACTIVITIES.
8. THE LIMITS OF GRADING SHALL BE STAKED. VEHICLES AND EQUIPMENT SHALL BE LIMITED TO THE EXISTING ROADS AND TO WITHIN PROJECT LIMITS.
9. ALL GRADING WORK BETWEEN OCTOBER 1 AND APRIL 30 IS AT THE DISCRETION OF ALAMEDA COUNTY.
10. THE OWNER/OWNER'S CONTRACTOR, AGENT, AND/OR ENGINEER SHALL ENSURE THAT ALL TEMPORARY CONSTRUCTION FACILITIES INCLUDING, BUT NOT LIMITED TO CONSTRUCTION MATERIALS, DELIVERIES, HAZARDOUS AND NON HAZARDOUS MATERIAL STORAGE, EQUIPMENT, TOOLS, PORTABLE TOILETS, GARBAGE CONTAINERS, ARE LOCATED OUTSIDE COUNTY RIGHT OF WAYS AND WATERWAYS.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PREVENT THE FORMATION OF AIRBORNE DUST NUISANCE AND SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM FAILURE TO DO SO.
12. PROPOSED BEST MANAGEMENT PRACTICES TO REDUCE POLLUTANTS IN STORM WATER DISCHARGES WILL BE IMPLEMENTED ON SITE, INCLUDING MINIMIZATION AND STABILIZATION OF DISTURBED AREAS, PROTECTION OF SLOPES AND CHANNELS, PERIMETER CONTROLS, INTERNAL EROSION CONTROL, AND SPECIFIC BEST MANAGEMENT PRACTICES.
13. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES LISTED ON THIS SHEET. MEASURES REGARDING THE DISCHARGE OF NON-STORM WATER RUNOFF SHALL APPLY YEAR-ROUND.
14. THE EROSION CONTROL PLAN AND ACCOMPANYING PLANS SHALL BE ON-SITE AT ALL TIMES.



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**EROSION AND SEDIMENT CONTROL DETAILS**  
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