CONTRACT SPECIFICATIONS

Contract No. C-055

Town of Danville

(Including Notice to Bidders,
Special Provisions, Proposal and Contract)

Project Plans Included in Appendix

for the

Diablo Road Pedestrian Trail and Drainage Improvements Project

DANVILLE, CALIFORNIA

For use in conjunction with the State of California Department of Transportation, Standard Specifications dated 2023, the current Town of Danville Standard Plans and the latest General Prevailing Wage Rates, and other standards referenced in the plans and Special Provisions. All bidders and subcontractors who perform work under this contract must be registered with the California Department of Industrial Relations pursuant to Senate Bill SB 854 (2013-2014).

Bids Open: July 15, 2025 at 2:00 p.m. via Zoom conference

811 Know what's below. Call before you dig.

Note: There are two non-mandatory pre-bid meetings. Parking will be available for both meetings on Fairway Drive and Diablo Road. The meetings will be held on Tuesday, June 10, 2025, and Thursday, June 26, 2025, between 10:00 am and 12:00 pm.

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A. NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN that the Town Council of the Town of Danville, State of California, hereby calls for electronic and sealed bid proposals to be received by the City Clerk of the Town of Danville, 500 La Gonda Way, Danville, CA on or before July 15, 2025 U.S. Pacific Time Zone, verified at www.time.gov. Electronic submittal of bids is required and must be submitted by email to bids@danville.ca.gov. Upon submittal of bids, an automatic email confirmation will be sent to the bidder acknowledging receipt. If the automatic email confirmation is not received, bidders must contact the person listed in the questions section on page 2 of this notice to bidders by 2:00 pm on Tuesday July 15, 2025, to verify the bid has been received.

The Town will allow electronic submittal of bids until 2:00 pm on Tuesday, July 15, 2025. Original documents of the bid submittal must be post marked on or before Tuesday, July 15, 2025, and received within five (5) business days of the electronic submittal. **Bids that are not submitted timely in both electronic and hard copy forms will not be considered.**

Description of Work. These bids shall cover all the furnishing of all labor, material, equipment, mechanical workmanship, transportation and services which are required for **Diablo Road Pedestrian Trail and Drainage Improvements Project, Contract No. C-055.** The work generally includes, but is not limited to, removal of trees, minor regrading, construction of a pedestrian/cycle trail, installation of hot mix asphalt, construction of drainage improvements including concrete v-ditches, drainage pipes, and inlets, installation of bioretention areas, traffic control, tree replacement planting, wildlife exclusion and cattle fencing, a drinking fountain and signs and other items that are required by the plans, standard specifications, or these Special Provisions.

Bids are required for the entire work described herein.

Engineer's Estimate. The estimated cost of construction is approximately $6,230,000

Contractor's License Requirement. The bidder and all subcontractors of the bidder shall possess a valid California contractor's license issued by the Contractor's State License Board (www.cslb.ca.gov) for the type(s) of work they are proposing to perform at the time the bid is submitted. The bidder shall possess at a minimum the following California contractor's license: Class A "General Engineering Contractor". **The Contractor must be properly licensed as a contractor from contract award through contract acceptance (California Public Contract Code §10164).**

Contractor Registration Requirement. Pursuant to California Labor Code Section 1771.1(a), a contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. To register, go to:

http://www.dir.ca.gov/Public-Works/PublicWorks.html

Bidding Procedures. Bids must be submitted electronically by email to bids@danville.ca.gov no later than the time and date set forth in the Notice to Bidders section above. The subject of the email must include the contractor's name and CIP #. Bidders will receive an email response that bids have been received. **Bidders are encouraged to familiarize themselves with the electronic submittal requirements.** Late bids will not be accepted.

Bids must be made on a proposal form which is included with the contract specifications and must be signed by the bidder. Original documents of the bid submittal must be postmarked and received no later than set forth in the Notice to Bidders section above and must be accompanied by a deposit in the amount shown on the Bidder's Bond which is part of the Proposal, sealed within a bid envelope, addressed and mailed to:

> "Sealed Bid – CIP C-055, Town of Danville, City Clerk, 500 La Gonda Way, Danville, California 94526"

The deposit may be cashier's check, certified check (certified without qualification and drawn on a solvent bank of the State of California or a National Bank doing business in the State of California), or bid bond, made payable to the TOWN OF DANVILLE, or the bid will not be considered. This deposit is to serve as agreed liquidated damages should the party or parties to whom the contract is awarded fail to enter into the contract after the award, or fail to give the bond required for the faithful performance of the contract, or fail to furnish any other bond required by law.

At 2:00 p.m. the electronic bid proposals will be opened by the City Clerk or his/her authorized representative of the Town of Danville and publicly read via Zoom conference. Bidders can view the bid opening by visiting:

https://us02web.zoom.us/j/83486418990
Webinar ID: 834 8641 8990

All bids received after this time will not be accepted.

The bids, together with a report of the bidders and the respective amounts of the bids, will be presented to the Town Council of the Town of Danville, on August 12, 2025, at 5:00 p.m.

The successful bidder shall furnish a performance bond and a payment bond.

Questions. Direct any questions to:

> Allan Shields
> Transportation Manager
> Town of Danville | 500 La Gonda Way | Danville, CA 94526
> (925) 314-3374
> ashields@danville.ca.gov

Obtaining Plans and Contract Specifications. In conformance with Public Contract Code §20103.7, prospective bidders can download plans and contract specifications at no charge from the Town of Danville website at:

http://www.danville.ca.gov/Government/RFPs-and-Bids/

It is the bidder's responsibility to regularly check this website for any addenda that may be issued prior to the bid opening date. Failure to acknowledge receipt of an issued addendum will be cause for a submitted bid to be deemed non-responsive. To receive automatic e-mail notifications of changes to the page, you must subscribe to "Notify Me":

http://www.danville.ca.gov/list.aspx

To be included on the official Plan Holder's List, bidders must send your name, company name, address, and phone numbers and email address to engineering@danville.ca.gov. The Plan Holder's List will be made available upon written request. Please note it is not a requirement to be included on the Plan Holder's List to bid on the project.

Prevailing Wage Rates. This Project is subject to the prevailing wage requirements applicable in Contra Costa County for each craft, classification or type of worker needed to perform the work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes. These prevailing wage rates are available online at http://www.dir.ca.gov/DLSR. Each Contractor and Subcontractor must pay no less than the specified rates to all workers employed to work on the Project. The schedule of per diem wages is based upon a working day of eight (8) hours. The rate for holiday and overtime work must be at least time and one-half. The Contract will be subject to compliance monitoring and enforcement by the California Department of Industrial Relations, pursuant to Labor Code Section 1771.4.

Nondiscrimination. This Contract is subject to state contract nondiscrimination and compliance requirements pursuant to the Government Code, Section 12990.

Payment of Withheld Funds. The Contractor may elect to receive 100% of the progress payments due under the contract from time to time, without retention of any portion of the payment by the Town, by depositing securities of equivalent value with the Town in conformance with Public Contracts Code Section 22300, Section 9-1.065, Payment of Withheld Funds, of the Standard Specifications and the sample escrow agreement included in this packet at page C-9. Such securities, if deposited by the Contractor, will be valued by the Town and the Town's decision on valuation of the securities will be final. If the Contractor elects not to deposit retention funds into an escrow account, then the Town will withhold 5% of each payment as retention pursuant to Public Contracts Code Section 7201.

Material Substitution Pre-Bid Approval. In accordance with Public Contract Code Section 3400, the Town has established a procedure which permits bidders to have their proposed unlisted "or equal" product or service submittals evaluated prior to the project bid opening. This procedure does not apply where products or services have been limited by specific designation per Public Contract Code Section 3400(b). The intent of the prequalification process is not for bidders to submit all of their proposed "or equal" products, but only those that would, if rejected, affect the bidder's bid amount. Proposals shall be submitted no later than 14 calendar days prior to the date of the bid opening. Proposals shall be accompanied by complete technical and descriptive data necessary to determine equality of the material, product, thing, or service. Samples shall be provided when requested. The burden of proof as to availability, comparative quality, suitability, and performance of the proposed substitution shall be upon the bidder. The bidder will not be reimbursed for any work or costs necessary for making the substitution workable. Proposals will be evaluated and deemed accepted, rejected, or incomplete by the Town; the Town will be the sole judge as to such matters. If the substitution is accepted, bidders will be notified by addenda.

Addenda. Any addenda issued prior to the bid opening shall constitute part of the Contract Documents. Subject to the limitations of Public Contract Code Section 4104.5, Town reserves the right to issue addenda prior to bid time.

The Town Council reserves the right to reject any or all bids and any or all items of such bids.

BY ORDER OF THE TOWN COUNCIL
TOWN OF DANVILLE
STATE OF CALIFORNIA
City Clerk of the Town of Danville
State of California

B. SPECIAL PROVISIONS

SECTION 1. CONTRACT SPECIFICATIONS AND PLANS

1.1 General

The work shall be done in accordance with the standards referenced in the documents insofar as they apply and in accordance with the following Special Provisions.

In case of conflict between contract components, refer to Standard Specification Section 5-1.02.

1.2 Definitions and Terms

As used herein, unless the context otherwise requires, the following terms have the following meaning:

BMP's: Construction Best Management Practices

Development Services Department: The Town of Danville.

Manager of Transportation: Transportation Manager for the Town of Danville.

Engineer: The City Engineer of the Town of Danville, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

ENGEO: The Town paid geotechnical testing firm for the project.

Laboratory: The laboratories authorized by the Engineer to test materials and work involved in the contract.

Standard Specifications: The 2023 edition of the Standard Specifications of the State of California, Department of Transportation. Any reference therein to the State of California or a State agency, office or officer shall be interpreted to refer to the Town or its corresponding agency, office or officer acting under this contract.

State: The Town of Danville.

State Highway Engineer: The City Engineer of the Town of Danville.

SWPPP: Storm Water Pollution Prevention Plan.

Transportation Building, Sacramento: Town Offices, Town of Danville.

Punch List: An inventory prepared by the Town of contract items of work, or portions thereof, that are incomplete, deficient, or not in conformance with the contract plans, specifications, contract change orders, or other contract documents.

Date of Completion: The date established by the contract documents by which all work encompassed by the contract must be completed.

SECTION 2. PROPOSAL REQUIREMENTS AND CONDITIONS

2.1 General

The bidder's attention is directed to the Standard Specifications Section 2, "Bidding", and these Special Provisions for the requirements and conditions which must be observed in the preparation of the proposal form and the submission of the bid.

The form of bidder's bond mentioned in the last paragraph in Standard Specifications Section 2-1.34, "Bidder's Security", is found at page P-11.

SECTION 3. AWARD AND EXECUTION OF CONTRACT

3.1 General

The bidder's attention is directed to the provisions in Standard Specifications Section 3, Contract Award and Execution, and these Special Provisions.

SECTION 4. START OF JOB SITE ACTIVITIES, TIME, DELAYS, AND LIQUIDATED DAMAGES

4.1 General

Attention is directed to the provisions in Standard Specifications Sections 8.1.04, "Start of Job Site Activities", 8-1.05, "Time"; 8-1.07, "Delays", and 8-1.10, "Liquidated Damages", and these Special Provisions.

A. Beginning of Work; Time of Completion. The Contractor shall begin work as directed in the written Notice to Proceed and shall diligently perform the work to completion before the expiration of **195 working days.**

The Contractor shall pay to the Town of Danville the sum of $2,000 per calendar day for each day's delay in finishing the work in excess of the number of working days specified above.

Working days, as defined herein, are those days shown on the *Working Day Calendars (5-day)* published by Caltrans and available on their website at:
http://www.dot.ca.gov/hq/construc/calendar/index.htm

Holidays are defined in Section 1 of the Standard Specifications. The Town of Danville will utilize these holidays when preparing the Weekly Statement of Working Days even though holidays recognized by the Town may differ. The Contractor shall note that the Town offices are closed between Christmas and New Year's Day in recognition of the Town's annual furlough. In addition, the Town recognizes two holidays for Christmas instead of one holiday per the Standard Specifications. Inspections by Town personnel will not be available during the furlough and during the additional Christmas holiday even though working days will accrue. Special authorization must be granted by the Engineer in order for the Contractor to perform field work during these days. If special authorization is not granted, no field work shall be accomplished.

The project has received a Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife attached to these contact specifications in Appendix F. To minimize adverse impacts to fish and wildlife and their habitats, project activities within the stream, stream banks, and riparian corridor shall be limited from June 15 to October 15. Installation of erosion control devices and site remediation activities are excluded from seasonal work period restrictions.

B. Liquidated Damages. If the contractor fails to complete this contract and this work within the time fixed (allowance being made for contingencies as provided herein), he becomes liable to the Town of Danville for all its loss and damage caused by the delay. Because, from the nature of the case, it is and will be impracticable and extremely difficult to ascertain and fix the Town of Danville's actual damage from any delay in performance, it is agreed that Contractor will pay as liquidated damages to the Town of Danville, the amounts indicated above, for each and every calendar day's delay in finishing the work in excess of the working days prescribed above. This amount is the result of the parties' reasonable endeavor to estimate fair average compensation for each calendar day's delay in finishing the work. If the liquidated damages are not paid, the Town of Danville may, in addition to its other remedies, deduct those damages from any money due or to become due Contractor under this contract. If the Town for any cause authorizes or contributes to a delay, suspension of work or extension of time, its duration shall be added to the time allowed for completion, but it shall not be deemed a waiver nor be used to defeat any right of the Town to damages for noncompletion or delay hereunder. Pursuant to Government Code Section 4215, the Contractor shall not be assessed liquidated damages for delay in completion of the work when such delay was caused by the failure of the Town or the owner of a utility to provide for removal or relocation of existing utility facilities.

C. Preconstruction Conference. Before the issuance of the Notice to Proceed, a preconstruction conference will be held at the Town Offices at 500 La Gonda Way, Danville, CA to discuss with the Contractor the scope of the work, contract drawings, specifications, existing conditions, materials to be ordered, equipment to be used, and all essential matters pertaining to the prosecution of and satisfactory completion of the project as required. The Contractor's representative at this conference shall include all major superintendents for the work and may include major subcontractors.

SECTION 5. GENERAL

5.1 Miscellaneous

5.1.01 Documents Integrated

The project plans, drawings and specifications including but not limited to the Notice to Contractors, these Special Provisions, bonds, affidavits, insurance certificates and the Contractor's accepted Proposal are all incorporated into the contract. They are intended to cooperate so that anything exhibited in the plans or drawings not mentioned in the specifications or Special Provisions, or vice versa, is to be executed as if exhibited, mentioned and set forth in both, to the true intent and meaning thereof when taken altogether. Differences or conflicts between these integrated documents shall be finally determined by the Engineer.

5.1.02 Previous Disqualification, Removal or Other Prevention of Bidding

Pursuant to Public Contract Code Section 10162, the bidder shall complete, under penalty of perjury, the questionnaire in the Proposal (page P-6) relating to previous disqualification, removal or other prevention of bidding of the bidder, or officers or employees of the bidder because of violation of law or a safety regulation.

A bid may be rejected if bidder (or an officer or employee who has a proprietary interest) has been disqualified, removed or otherwise prevented from bidding on or completing a federal, state or local project because of a violation of law or a safety regulation.

No Contractor or subcontractor may bid on, be awarded or work on this contract if they are ineligible to perform work pursuant to Section 1777.1 or Section 1777.7 of the Labor Code. As required by Public Contract Code Section 6109(b), any contract between the Contractor and a debarred subcontractor is void as a matter of law. Any public money paid to a debarred subcontractor for work on this project shall be returned to the Town and the Contractor shall be responsible for payment of wages to employees of the debarred subcontractor.

5.2 Payments; Bonds; Insurance; Failure to Perform

5.2.01 Payments

Unit prices furnished by the Contractor shall be used only as a basis for determining progress payments or authorized changes in the work. No adjustment in the quantities will be made due to any Contractor's claims for additional labor and materials, unless such additional work is specifically requested in writing by the Engineer.

All quantities designated on bid sheets as "Final Pay Item Quantities" shall be paid for in accordance with the following section:

> When the estimated quantities for a specific portion of the work are designated on the bid sheets as final pay quantities, said estimated quantities shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the Engineer. If such dimensions are revised and such revisions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the changes in the dimensions. The estimated quantities for such specific portion of the work shall be considered as approximate only and no guarantee is made that the quantities that can be determined by computations, based on the details and dimensions shown on the plans, will equal the estimated quantities. No allowance will be made in the event that the quantities based on computations do not equal the estimated quantities.
>
> When portions of an item have been designated on the bid sheets as final pay quantities, portions not so designated will be measured and paid for in accordance with the applicable provisions of these specifications and the Special Provisions.

All quantities not designated as "Final Pay Item Quantities" will be paid for as "Approximate Pay Quantities." These quantities shall be measured during construction and paid for as shown on bid sheet.

The last day of each calendar month is the cutoff day for submittal of requests for partial payment. Within seven days after receiving a request for partial payment, the Engineer shall determine whether the request is proper. If the Engineer determines that the request is not proper, it shall be returned to the Contractor with an explanation. The Engineer's decision as to partial payment is final. The Town of Danville shall issue to Contractor a certificate for the amount determined to be due, minus 5% thereof pursuant to Public Contract Code Section 9203, but not until defective work and materials have been removed, replaced and made good. All properly submitted requests for partial payment shall be paid within 30 days as required by Public Contract Code Section 20104.50. Failure of the Town to meet this deadline will entitle Contractor to interest as specified in Section 20104.50. No reduction in the 5% retention will be allowed.

Full compensation for performing all the work as shown on the plans, as specified in these Standard Specifications and Special Provisions, including furnishing all labor, materials, tools, equipment and

incidentals and performing all alterations necessary to complete the work, shall be considered as included in the contract price bid for the various items of work, and no additional compensation will be allowed therefor.

Contractor's attention is directed to Section 5.3.01 "Changes in the Work", 5.3.02 "Force Account", 5.3.03 "Change Order", and 5.3.04 "Claims for Extra Work" of these Special Provisions.

5.2.02 Payments Withheld

A. The Town of Danville or its agent may withhold any payment, or because of after-discovered evidence nullify a certificate for payment, to such extent and period of time only as may be necessary to protect the Town of Danville from loss because of:

1. Defective work not remedied or uncompleted work.
2. Claims filed or reasonable evidence indicating probable filing.
3. Failure to properly pay subcontractors or for material or labor.
4. Reasonable doubt that the work can be completed for the balance then unpaid.
5. Damage to another contractor.
6. Damage to the Town of Danville, other than damage due to delays.
7. Damage to utilities or other properties.
8. Failure to submit certified payroll reports.

B. The Town of Danville shall use reasonable diligence to discover and report to the Contractor, as the work progresses, the materials and labor which are not satisfactory to it, so as to avoid unnecessary trouble or cost to the Contractor in making good any defective work or parts.

C. Thirty-five calendar days after the Town of Danville accepts the project and files its notice of completion of the entire work, it shall issue a certificate to the Contractor and pay the balance of the contract price after deducting all amounts withheld under this contract, provided the Contractor shows that all claims for labor and materials have been paid, no claims have been presented to the Town of Danville based on acts or omissions of the Contractor, and no liens or withhold notices have been filed against the work or site, and provided there are not reasonable indications of defective or missing work or of late-recorded notices of liens or claims against Contractor.

D. Thirty calendar days prior to the date established as the contract completion date, the Town will initiate the preparation of a "punch list." The Contractor is advised that the Town will withhold an amount equal to 150% of the value of all "punch list" items from the last progress payment due the Contractor. The value of "punch list" items will be determined by the Engineer.

The date of acceptance of all contract work is considered to be the date that a final inspection by the Engineer is complete, and all deficiencies in the work, including "punch list" items, are verified to be corrected. The Engineer may for good causes, including but not limited to changed or latent field conditions, amend the initial "punch list" prior to final acceptance.

E. The Contractor may elect to receive 100% of the progress payments due under the contract from time to time, without retention of any portion of the payment by the Town, by depositing

securities of equivalent value with the Town in conformance with Public Contracts Code Section 22300, and the sample escrow agreement included in this packet at page C-9. Such securities, if deposited by the Contractor, will be valued by the Town and the Town's decision on valuation of the securities will be final.

5.2.03 Guaranty and Bonds

Concurrently with the execution of the contract, Contractor shall furnish: (1) a surety bond in an amount equal to at least one-hundred percent (100%) of the contract price as security for the faithful performance of this contract, and (2) a separate surety bond in an amount equal to at least one-hundred percent (100%) of the contract price unless a greater percentage is required by the Special Provisions, as security for the payment of all persons performing labor and furnishing materials in connection with this contract.

Replace Item 2 in Section 3-1.05 of the Standard Specifications with the following:

> "2. Performance Bond to guarantee the faithful performance of the Contract. This bond must be equal to at least 100 percent of the total bid."

The form of each bond shall be satisfactory to the City Attorney. The bonds shall be supplied by sureties licensed to issue such bonds in the State of California.

The two contract bonds noted above and required by Standard Specifications Section 3-1.05, "Contract Bonds" (as amended), shall continue in full force and effect for the duration of the guaranty period. Examples of Performance and Payment bond forms for this purpose are included in the Contract Section (pages C-5 and C-7).

A material guaranty for a period of 12 months from the date of acceptance will be required for this contract and shall conform to the Standard Specifications Section 6-3.06, "Guarantee".

Full compensation for furnishing the guaranty and bonds will be considered as included in the contract price or prices paid for the items of work involved and no additional compensation will be allowed therefor.

5.2.04 Insurance

In lieu of the insurance requirement of Standard Specifications Section 7-1.06, the following insurance requirements shall apply to this contract.

For purposes of this section and Section 5.2.05 below, the following parties shall be identified as the indemnified parties: The Town of Danville, and the CCTA, including their elected and appointed officials, officers, directors, employees, agents, volunteers, and representatives.

A. Minimum Scope of Insurance: Prior to commencing work and during the entire term of the Agreement, Contractor shall procure and maintain the following insurance policies in these minimum amounts:

1. Insurance Services Office Commercial General Liability Coverage (occurrence Form CG 0001), two million dollars ($2,000,000) per occurrence for bodily injury, personal injury, and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate

limit shall apply separately to the work to be performed under this Agreement, or the general aggregate limit shall be at least twice the required occurrence limit.

2. Insurance Services Office Form Number CA 0001 covering Automobile Liability, Code 1, two million dollars ($2,000,000) per accident for bodily injury and property damage.

3. Workers' Compensation as required by the State of California, and Employers' Liability Insurance, one million dollars ($1,000,000) per accident for bodily injury or disease.

B. Endorsements: Each general liability and automobile liability insurance policy shall be endorsed with the following specific language:

1. The indemnified parties are to be covered as additional insureds with respect to liability arising out of work performed by or on behalf of the Contractor.

2. For any claims related to this Agreement, Contractor's insurance coverage shall be considered primary insurance as respects the indemnified parties. Any insurance or self-insurance maintained by the indemnified parties shall be excess of the Contractor's insurance and shall not contribute with it.

3. This insurance shall act for each insured and additional insured as though a separate policy had been written for each. This, however, will not act to increase the limit of liability of the insuring company.

4. The insurer waives all rights of subrogation against the indemnified parties.

5. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the indemnified parties.

6. Each insurance policy required by this Agreement shall provide that coverage shall not be canceled, except after 30 days prior written notice has been given to the Town.

C. Verification of Coverage: Contractor shall provide to the Town all certificates of insurance with original endorsements affecting coverage required by this paragraph. Certificates of such insurance shall be filed with the Town on or before commencement of performance of this Agreement. The Town reserves the right to require complete, certified copies of all required insurance policies at any time.

D. Acceptability of Insurers: All insurance companies providing coverage to Contractor for purposes of this Agreement shall be authorized by the Insurance Commissioner of the State of California to transact business within the State of California and shall have an A.M. Best's rating of no less than "A:VII".

E. Deductibles and Self-Insured Retentions: Any deductibles or self-insured retention's must be declared to and approved by the Town. At the Town's option, the Contractor shall demonstrate financial capability for payment of such deductibles or self-insured receptions.

F. By signing a contract, the successful bidder acknowledges that he is aware of the provisions of Labor Code §3700 which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with that Code, and that he will comply with such provisions before commencement of the work of this contract. On signing the contract, Contractor shall give the Town: (1) a certificate of consent to self-insure issued by the Director of Industrial Relations, or (2) a certificate of Workers' Compensation insurance issued by an admitted insurer, or (3) an exact copy or duplicate thereof certified by the Director or the insurer.

5.2.05 Hold Harmless and Indemnity

To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless the indemnified parties (as defined in Section 5.2.04 above), from and against all claims, damages, losses and expenses, including but not limited to reasonable attorneys' fees, arising from or related to the negligent acts, errors or omissions of Contractor, its employees or agents in the performance of this Agreement. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as a limitation upon the amount of indemnification to be provided by Contractor.

Notwithstanding the foregoing, nothing herein shall be construed to require Contractor to indemnify the Indemnified Parties from any claim arising from the active negligence or willful misconduct of the Indemnified Parties.

If, through acts of neglect on the part of the Contractor, any other contractor or any other subcontractor shall suffer loss of damage on the work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration. If such other contractor or subcontractor asserts a claim against the Indemnified Parties on account of any damage alleged to have been so sustained, the Town shall notify the Contractor who shall indemnify and hold harmless the Indemnified Parties against such claims.

As required by Public Contract Code Section 9201, the Town shall provide timely notice to Contractor of any third-party claims received by the Town relating to this Contract. The Town reserves the right to settle any such claim at any time.

5.2.06 Failure to Perform

If the Contractor at any time refuses or neglects, without fault of the Town of Danville, to supply sufficient materials or workers to complete this agreement and work as provided herein, for a period of 10 days or more after written notice thereof by the Town, the Town may furnish same and deduct the reasonable expenses thereof from the contract price.

If the failure to perform or the manner of performance results in a threat to public health or safety, the Town may, after making a reasonable attempt to contact Contractor, perform necessary emergency work and deduct the reasonable cost of it from the amount owed to Contractor.

5.2.07 Termination of Control

Attention is directed to Standard Specifications Section 8-1.13, "Contractor's Control Termination". If the Contractor's control of the work is terminated or he abandons the work and the contract work is completed in conformance with the provisions of Public Contract Code Section 10255 (State Contract Act), any dispute concerning the amount to be paid by the Town to the Contractor or his surety, under the provisions of Section 10258 of the Act, shall be subject to arbitration in accordance with the section of these Special Provisions entitled "Arbitration." The surety shall be bound by the arbitration award and is entitled to participate in such arbitration proceedings.

5.2.08 Arbitration

A. Agreement of the Parties. By entering into the contract both parties agree to submit all claims arising under or relating to the contract, which remain unresolved after exhaustion of all remedies available under the contract to independent arbitration prior to litigation. Except as otherwise provided herein, the arbitration shall be conducted under Public Contract Code Section 10240 and following. See also Standard Specifications Section 9-1.22, "Arbitration". "Claim" means a demand for monetary compensation or damages asserted by one party to this contract against the other party, arising under or relating to this contract which remains unresolved after exhausting all contractual remedies except arbitration (see Standard Specifications Section 9-1.17D, "Final Payment and Claims"). The arbitration provided for in this contract shall be "de novo."

B. Subcontractors and Suppliers. All contracts valued at more than $15,000 between the general contractor and its subcontractors and suppliers shall include a provision that the subcontractors and suppliers shall be bound to the Contractor to the same extent that the Contractor is bound to the Town by all terms and provisions of this contract, including the arbitration provision.

5.2.09 Assignment of Antitrust Actions

The following provisions of Public Contract Code Section 7103.5 and Government Code Sections 4553 and 4554 shall be applicable to the Contractor and all subcontractors:

“In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (▶15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties.”

“If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.”

“Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.”

5.3 Changes

5.3.01 Changes in the Work

The Town, without invalidating the Contract, may order extra work, make changes by altering, or delete any portion of the work as specified here, or as deemed necessary or desirable by the Engineer. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time and additional costs caused thereby shall be adjusted at the time of ordering such change or extra work.

Extra work shall be that work not shown or detailed on the plans and not specified. Such work shall be governed by all applicable provisions of the Contact Documents.

In giving instructions, the Engineer shall have authority to make minor changes in the work not involving extra cost and not inconsistent with the purposes of the work. Otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless pursuant to a written order by the Engineer, and no claim for an addition to the total amount of the Contract shall be valid unless so ordered.

It is mutually understood that it is inherent in the nature of municipal construction that some changes in the plans and specifications may be necessary during the course of construction to adjust them to field conditions, and that it is of the essence of the Contract to recognize a normal and expected margin of change. The Engineer shall have the right to make such changes from time to time in the Plans, in the character of the work, and ensure the completion of the work in the most satisfactory manner without invalidating the Contract.

Payment for all changes ordered by the Engineer involving installation of work essential to complete the Contract shall be subject to negotiation if no basis of payment is provided for herein.

Upon demand of either the Contractor or the Engineer an equitable adjustment satisfactory to both parties shall be made as the basis of payment for extra work. The prices agreed upon and any agreed-upon adjustment in contract time shall be incorporated in the written order issued by the Engineer, which shall be written so as to indicate acceptance on the part of the Contractor as evidenced by his signature. In the event prices cannot be agreed upon, the Owner reserves the right to terminate the Contract as it applies to the items in question and make such arrangements as it may deem necessary to complete the work, or it may direct the Contractor to proceed with the items in question on a force account basis as provided below.

5.3.02 Force Account

Attention is directed to the provisions in Standard Specifications Sections 9-1.04, "Force Account", current State of California Labor Surcharge & Equipment Rental Rate Book, and these Special Provisions.

Add to Section 9-1.04A “General” the following:

> “Records. The Contractor’s representative and the Engineer shall compare the records of the work performed as ordered on a force account basis at the end of each day on which the work is performed. Copies of these records shall be made on suitable forms provided for this purpose and signed by both the Engineer and the Contractor’s representative. All claims for work done on a force account basis shall be certified and submitted to the Engineer by the Contractor, and such statements shall be filed with the Engineer not later than the 20th day of the month following that in which the work was actually performed.”

Add to Section 9-1.04B “Labor” the following:

> “Supervision and Overhead. No allowance shall be made for general superintendence. The cost of supervision and overhead is presumed to be included in the Force Account labor payment.”

5.3.03 Change Order

The value of change order work shall be determined and paid for with a Change Order in one of the following ways unless paid by force account:

A. By unit prices mutually agreed upon by the Owner and Contractor; or

B. By the Contractor's estimate and the Engineer's acceptance of a lump sum. The Contractor shall do such extra work and furnish material and equipment upon receipt of an approved Contract Change Order or other written order of the Engineer and, in the absence of such approved Contract Change Order or other written order of the Engineer, the Contractor shall not be entitled to payment for such extra work. Payment for extra work required to be performed pursuant to the provisions of this section, in the absence of an executed Contract Change Order, will be made by force account as provided herein, or as agreed to by the Contractor and the Engineer. However, in no case shall work be undertaken without written notice from the Engineer to proceed with the work.

5.3.04 Claims for Extra Work

If the Contractor claims that any instructions involve extra cost under this Contract, he shall give the Engineer written notice thereof within 48 hours after the receipt of such instructions, and in any event before proceeding to execute the work, except in an emergency endangering life or property, and the procedure shall then be as provided for under "Changes in the Work". No cash claim shall be valid unless so made.

5.3.05 Control of Work Inspection

Whenever the Contractor varies the period during which work is carried on each day, he shall give due notice to the Engineer so that proper inspection may be provided. Control of work shall be in accordance with Standard Specifications Section 5.

5.4 Subcontracting; Labor

5.4.01 Subcontracting

The Subletting and Subcontracting Fair Practices Act (California Contract Code §§4100-4113) is incorporated here. A sheet for listing the subcontractors, as required by the Act, is included in the Proposal Section (page P-5). No listed subcontractor shall be substituted without written authorization from the Town. Excerpts from the Code are included below.

Attention is directed to Standard Specifications Section 5-1.13, "Subcontracting", and Section 2-1.33C, "Subcontractor List", and these Special Provisions. Each bidder shall list in this proposal:

A. The name and location of the place of business of each subcontractor who will perform work or labor or render services to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of one percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of one percent of the prime contractor's total bid or ten thousand dollars ($10,000), whichever is greater.

B. The portion of the work, which shall be done by each such subcontractor. Only one subcontractor shall be listed for each such portion.

C. If a prime contractor fails to specify a subcontractor or if a prime contractor specifies more than one subcontractor for the same portion of work to be performed under the contract in excess of one-half of one percent of the prime contractor's total bid, the prime contractor agrees that he or she is fully qualified to perform that portion himself or herself, and that the prime contractor shall perform that portion himself or herself. If after award of contract, the prime contractor subcontracts, except as provided for in §4107 or §4109, any such portion of the work, the prime contractor shall be subject to the penalties named in §4111.

D. A prime contractor whose bid is accepted may not:

a. Substitute a person as subcontractor in place of the subcontractor listed in the original bid, except that the Town may, except as otherwise provided in §4107.5, consent to the substitution of another person as a subcontractor in any of the following situations:

i. When the subcontractor listed in the bid, after having had a reasonable opportunity to do so, fails or refuses to execute a written contract for the scope of work specified in the subcontractor's bid and at the price specified in the subcontractor's bid, when that written contract, based upon the general terms, conditions, plans, and specifications for the project involved or the terms of that subcontractor's written bid, is presented to the subcontractor by the prime contractor.

ii. When the listed subcontractor becomes insolvent or the subject of an order for relief in bankruptcy.

iii. When the listed subcontractor fails or refuses to perform his or her subcontract.

iv. When the listed subcontractor fails or refuses to meet the bond requirements of the prime contractor as set forth in §4108.

v. When the prime contractor demonstrates to the awarding authority, or its duly authorized officer, subject to the further provisions set forth in §4107.5, that the name of the subcontractor was listed as the result of an inadvertent clerical error.

vi. When the listed subcontractor is not licensed pursuant to the Contractors License Law.

vii. When the Town determines that the work performed by the listed subcontractor is substantially unsatisfactory and not in substantial accordance with the plans and specifications, or that the subcontractor is substantially delaying or disrupting the progress of the work.

viii. When the listed subcontractor is ineligible to work on a public works project pursuant to §1777.1 or §1777.7 of the Labor Code.

ix. When the Town determines that a listed subcontractor is not a responsible contractor.

Prior to approval of the prime contractor's request for the substitution, the Town shall give notice in writing to the listed subcontractor of the prime contractor's request to substitute and of the reasons for the request. The notice shall be served by certified or registered mail to the last known address of the subcontractor. The listed subcontractor who has been so notified has five working days within which to submit written objections to the substitution to the Town. Failure to file these written objections constitutes the listed subcontractor's consent to the substitution.

If written objections are filed, Town shall give notice in writing of at least five working days to the listed subcontractor of a hearing by the Danville Town Council on the prime contractor's request for substitution.

b. Permit a subcontract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the original bid, without the consent of the Town.

c. Other than in the performance of "change orders" causing changes or deviations from the original contract, sublet or subcontract any portion of the work in excess of one-half of one percent of the prime contractor's total bid as to which his or her original bid did not designate a subcontractor.

E. A prime contractor violating any of the provisions of this chapter violates his or her contract and the Town may exercise the option, in its own discretion, of (1) canceling his or her contract or (2) assessing the prime contractor a penalty in an amount of not more than 10 percent of the amount of the subcontract involved, and this penalty shall be deposited in the fund out of which the prime contract is awarded. In any proceedings under this section the prime contractor shall be entitled to a public hearing and to five days' notice of the time and place thereof.

F. Violation of this chapter by a licensee under Chapter 9 (commencing with §7000) of Division 3 of the Business and Professions Code constitutes grounds for disciplinary action by the Contractors State License Board, in addition to the penalties prescribed in §4110.

No subcontractor may work on this Contract if they are ineligible to perform work pursuant to Section 1777.1 or Section 1777.7 of the Labor Code. As required by Public Contract Code Section 6109(b), any contract between the Contractor and a debarred subcontractor is void as a matter of law. Any public money paid to a debarred subcontractor for work on this project shall be returned to the Town and the Contractor shall be responsible for payment of wages to employees of the debarred subcontractor. To check the debarment status of a subcontractor, use the Excluded Parties List System (EPLS) maintained by the General Services Administration at:

https://www.sam.gov/portal/public/SAM

5.4.02 Prevailing Wage Scale

The minimum compensation to be paid for all labor performed under this Contract shall be the prevailing rate as determined by the Director of the Department of Industrial Relations for this area. The Contractor and all his subcontractors shall pay at least these rates to all persons on this work,

including all travel, subsistence, and fringe benefit payments provided for by applicable collective bargaining agreements.

Pursuant to Labor Code Section 1773, the Director of the Department of Industrial Relations has ascertained the general prevailing wage rates per diem, and for holiday and overtime work, in the locality in which this work is to be performed, and for each craft, classification, or type of worker needed to execute this Contract. Those rates are incorporated here.

This schedule of wages is based on a working day of eight hours unless otherwise specified; and the daily rate is the hourly rate multiplied by the number of hours constituting the working day. When less than that number of hours is worked, the daily wage rate is proportionately reduced, but the hourly rate remains as stated.

The job site of each contract, for the purpose of Section 1773.2 of the Labor Code, shall be the Town Offices, 500 La Gonda Way, Danville, CA.

All skilled labor not listed above must be paid at least the wage scale established by the collective bargaining agreement for such labor in the locality where such work is being performed. If it becomes necessary for the Contractor or any subcontractor to employ any person in a craft, classification or type of work (except executive, supervisory, administrative, clerical or other nonmanual workers as such) for which no minimum wage rate is specified, the Contractor shall immediately notify the Town of Danville which shall promptly determine the prevailing wage rate for that type of work and furnish the Contractor with the minimum rate based thereon, which shall apply from the time of the initial employment of the person affected and during the continuance of such employment.

5.4.03 Labor Nondiscrimination

No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for violation of this chapter. (Reference: Labor Code Section 1735; Standard Specifications Section 7-1.02I(2).)

Attention is also directed to the requirements of the California Fair Employment and Housing Act (Government Code Sections 12900-12996), to the regulations promulgated by the Fair Employment and Housing Commission to implement the Act, an opportunity requirement in the Special Provisions.

5.4.04 Hours of Labor

Except as provided for in Labor Code Section 1815, no worker employed at any time on this work by the Contractor or any subcontractor shall be required or permitted to work longer than eight hours in one calendar day or 40 hours in one calendar week. Pursuant to Labor Code Section 1813, the Contractor shall forfeit twenty-five dollars ($25) for each violation of this restriction. As further required by Labor Code Section 1813, the Town shall report all such violations to the Division of Labor Standards Enforcement.

5.5 Materials

5.5.01 Alternative Methods of Construction

Whenever certain of the plans or specifications provide that more than one specified method of construction or more than one specified type of construction equipment may be used to perform portions of the work and leave the selection of the method of construction or the type of equipment to be used up to the Contractor, it is understood that the Town does not guarantee that every such method of construction or type of equipment can be successfully used throughout all or any part of any project. It shall be the Contractor's responsibility to select and use the alternative or alternatives, which will satisfactorily perform the work under the conditions encountered. In the event some of the alternatives are not feasible or it is necessary to use more than one of the alternatives on any project, full compensation of any additional cost involved shall be considered as included in the contract price paid for the item of work involved and no additional compensation will be allowed therefor.

5.5.02 Submittals

Contractor shall submit to the Town, in triplicate, submittal of all proposed items to be incorporated into the work, as described more specifically in Section 10, in adequate time before installation for review and approval. Items not approved shall not be used in the work.

The Contractor shall provide submittals for all materials, product data, working/shop drawings, diagrams, schedules, or other data prepared by the Contractor in accordance with the Contract requirements. The submittals shall not modify any Contract requirement.

The Contractor shall provide Certificates of Compliance from its material suppliers, in advance of the work, certifying that all materials to be used on the project conform to the requirements of these specifications. In conformance with Section 6-3.05E, “Certificates of Compliance,” of the Standard Specifications, each submittal will be signed by the manufacturer of the material and state that the material complies with the Contract. The Town reserves the right to refuse to permit the use of material based on a Certificate of Compliance alone.

Contractor shall provide submittals as follows or as directed by the Engineer:

Emergency Names and Phone Numbers
Critical Path Method Schedule in addition to a Three-Week Project Look Ahead submitted bi-weekly
Public Notification
Traffic Control Plan (Vehicular and Pedestrian)
Water Pollution Control Plan
Wildlife Exclusion Fencing
Hot Mix Asphalt
Geogrid
Concrete Mix Design
Reinforcement Bars
Bioretention Soil Mix
Rock Slope Protection
Trees
Shrubs
Tree cages
Concrete Drainage Inlets
Schedule of Values

Solid Waste Disposal and Recycling Report
Mechanical Earth Geowall Units
Glassgrid
Geocomposite Drain
Drainage Fill
Crushed Rock
Aggregate Base
Class II Permeable Rock
Reinforced Concrete Pipe
Corrugated Metal Pipe
PVC Solid Pipe
PVC Performated Pioe
Engineered Fill
Steel Soldier Piles
Pre-cast Concrete Lagging
Douglas Fir Timber Lagging
Silt Fencing
Hydroseed Mix
Cattle Exclusion Fence Materials
Gate Components
Quality Control for HMA
Erosion Control Fabric
Bicycle Safety Signs
Interpretive Signs
Drinking Fountain
Construction Funding Signs
Sidewalk
Pre-Cast Defensible Surface
Arborist Certification

Submittals shall be received by the Engineer at least ten (10) working days in advance of commencing the applicable work. No work may begin on those items prior to final approval of the submittals by the Engineer.

Submittals shall be shown on the construction schedule and shall not be critical path items of work.

All required submittals, except as noted, shall be reviewed by the Owner or Engineer and returned to the Contractor within ten (10) working days from the date of receipt by the Engineer. In addition, the Contractor shall allow the Town equivalent time periods to review re-submittals for any previously rejected or incomplete submittals.

No work may begin under contract until the CPM Schedule and Traffic Control Plan have been approved by the Engineer. Time required for review and approval of these items shall not constitute a basis for time extension.

The Engineer's review of Contractor shop drawing submittals shall not relieve the Contractor of the entire responsibility for the correctness of details and dimension. The Contractor shall assume all responsibility and risk for any misfits due to any errors in Contractor submittals. The Contractor shall be responsible for the dimensions and the design of adequate connections and details. Acceptance by the Engineer of a substitute item proposed by the Contractor shall not relieve the Contractor of

the responsibility for full compliance with the Contract Documents and for adequacy of the substitute item.

5.5.03 Preference for Materials

The Town of Danville desires to promote the industries and economy of the Town of Danville and the Contractor therefore promises to use the products, workers, laborers and mechanics of the Town in every case where the price, fitness and quality are equal.

5.6 Project Appearance; Safety and Convenience

5.6.01 Project Appearance

The Contractor shall maintain a neat appearance to the work. In any area visible to the public, the following shall apply:

A. When practicable, debris developed during construction of the project shall be removed or disposed of daily. All material shall be disposed of in accordance with the Standard Specifications Section 4-1.13, "Cleanup". The Contractor shall make arrangements for disposing of materials outside the highway right of way in accordance with Section 5-1.20B(4), “Contractor-Property Owner Agreement” of the Standard Specifications and shall pay all costs involved.

B. Full compensation for conforming to the requirements of this section shall be included in the contract price or prices paid for the various contract items of work and no additional compensation will be allowed therefor.

C. The Contractor shall eliminate refuse from the site as necessary and when directed by the Town in order to avoid an unsightly appearance or inconvenience to others.

D. Upon completion of the work the Contractor shall remove from the site all unused materials and all equipment belonging to or used by Contractor and all rubbish resulting from his work on this project. The site shall be left in a neat and presentable condition.

5.6.02 Public Convenience and Public Safety

Attention is directed to Standard Specifications Sections 7-1.03 and 7-1.04 which are modified here to provide that all costs required to comply with those sections shall be included in the contract price or prices paid for the various contract items of work and no additional compensation will be allowed therefor.

The Contractor shall maintain access to all off-street parking facilities within the project limits during construction. If access cannot be maintained or will need to be closed temporarily, the Contractor shall notify the Town, resident, and/or business owner(s) 72 hours in advance.

5.6.03 Noise Control Requirements

Noise control shall conform to the provisions in Standard Specifications Section 14-8.02, "Noise Control", and these Special Provisions and the Town's Noise Control Ordinance (Danville Municipal Code Section 4-2).

The noise level requirement shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

5.6.04 Excavation

A. Contractor shall comply with the provisions of Labor Code Section 6705, if applicable, by submitting to the Town of Danville a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during trench excavation.

B. The Contractor's attention is directed to Public Contract Code Section 7104, which requires the Contractor to promptly notify the Town of Danville when working on a contract involving the digging of trenches or excavations in excess of four feet below the surface, and when any of the following are encountered:

(1) Material that the contractor believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

(2) Subsurface or latent physical conditions at the site differing from those indicated.

(3) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

Such notification shall be in writing and shall be submitted to the Engineer prior to disturbing any of the above conditions.

5.6.05 Protection

Contractor shall use all means necessary to protect existing objects designated to remain and, in the event of damage, immediately make all repairs and replacements necessary to the approval of the Town's representative and at no additional cost to the Town.

If Contractor encounters unforeseen items during clearing and demolition work, he is to notify the Engineer prior to removal or demolition. The Contractor shall protect all existing utilities, trees, shrubbery, landscaping, irrigation facilities, buildings, fences, roadside signs, poles, mailboxes, and all other improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation.

The Contractor shall not destroy, remove, or otherwise disturb any existing survey markers or other existing street or roadway markers unless specifically shown on the contract plans. No pavement breaking or excavation shall be started until all survey or other permanent marker points that will be disturbed by the construction operations have been properly referenced for easy and accurate restoration. All survey markers or points disturbed by the Contractor shall be accurately restored to the satisfaction of the Engineer by the Contractor at its own expense.

The Contractor shall protect all underground utilities and other improvements, which may be impaired during construction operations. It shall be the Contractor’s responsibility to ascertain the actual

location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

The Contractor shall notify all utility companies 48 hours prior to any excavation so that their lines can be marked. Those to be notified include, but are not limited to:

Call Before You Dig, 811 or www.call811.com
Underground Service Alert (USA), 1-800-227-2600 or www.usanorth.org

The Contractor shall relocate the existing cattle exclusion fence before attempting to find and pothole utilities in the areas between Stations 16+00 and 42+00 of the trail alignment in order to provide access to utility locators to these areas.

The Contractor's attention is directed to the National Historic Preservation Act of 1966 (16 U.S.C. 470 and 36 CFR 800) which provides for the preservation of potential historical architectural, archaeological, or cultural resources (hereinafter called "cultural resources"). In the event potential cultural resources are discovered during subsurface excavations in the public street right-of-way or on public lands, the Contractor shall immediately cease all operations and shall immediately notify the Engineer.

5.6.06 Maintaining Traffic

Attention is directed to Standard Specifications Sections 7-1.03, "Public Convenience"; 7-1.04, "Public Safety"; and 12, "Temporary Traffic Control" and to the Section entitled "Public Safety" elsewhere in these Special Provisions. Nothing in these Special Provisions shall be construed as relieving the Contractor from his responsibility as provided in Section 7-1.04. All sections of the California Vehicle Code shall be in full effect except as provided hereinafter. Section 591 and any other section excluding roads under construction from certain requirements of the Vehicle Code shall be in effect only as permitted by the Engineer. The Engineer's permission shall not be construed to relieve any person from the duty of exercising due care.

On November 18, 2006 FHWA added part 634 to Title 23, Code of Federal Regulations concerning worker visibility. This regulation has defined "high-visibility safety apparel" as personal protective safety clothing that is intended to provide conspicuity during both daytime and nighttime usage and that meet or exceed the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled "American National Standard for High-Visibility Safety Apparel and Headwear."

On November 24, 2008, the FHWA's final rule on worker visibility was included in the California Manual on Uniform Traffic Control Devices by means of Traffic Operations Policy Directive 08-07. This change broadened the applicability to workers within the right-of-way of any street or highway in California. All workers performing work within the public right-of-way must wear high-visibility safety apparel at all times.

Standard Specifications Section 12-1.03 is modified here to provide that all flagging costs shall be included in the prices paid for the various contract items of work and no additional compensation will be allowed.

One lane of traffic (minimum 12 feet per lane) shall be open to vehicular traffic for the entire length of the project at all times. Striping and/or cones, barricades, and flagmen properly marked shall be used to delineate the traffic lane. Access to driveways shall be maintained at all times. No traffic lanes may be closed before 9:00 a.m. or after 4:00 p.m. without written permission from the Engineer.

When entering or leaving roadways which bear public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic.

The use of fluorescent traffic cones to direct traffic away from excavations shall be considered lane closure.

The provisions in this section may be modified or altered if, in the opinion of the Engineer, public traffic will be better served and work expedited. Such modifications or alterations shall not be adopted until approved in writing by the Engineer.

All hauling on Town streets shall be on a haul route approved by the Engineer.

5.6.07 Dust Control

Dust control shall conform to Section 14-9.03, "Dust Control", Section 17, “Watering”, and Section 18, “Dust Palliative” of the Standard Specifications, and these Special Provisions.

5.6.08 Damage Repair and Restoration

Attention is directed to Standard Specifications Section 5-1.39, "Damage Repair and Restoration", and the sections entitled "Contractor's Responsibility for the Work and Materials" and “Contractor’s Responsibility for Damage” of these Special Provisions.

Damage to other existing facilities occurring prior to the performance of the work provided for in this contract shall be repaired or reconstructed by the Contractor, as directed by the Engineer, and such work will be paid for as extra work as provided in Section 5.3.01 of these Special Provisions.

5.6.09 Obstructions

Attention is directed to Section 5-1.36, “Property and Facility Preservation”, Section 5-1.39, “Damage Repair and Restoration”, Section 7-1.05, “Indemnification”, Section 7-1.06, “Insurance”, and Section 15, "Existing Facilities” of the Standard Specifications, and these Special Provisions.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and of the public. Facilities requiring special precautions include, but are not limited to, natural gas pipelines greater than six (6) inches in diameter or operating at pressures greater than 60 psi (Gage); underground electric supply cables which do not have concentric neutral conductors or other effectively grounded metal shields or sheaths; and underground electrical conductors with potential to ground of more than 300 volts. The Contractor shall notify the Engineer at least 24 hours before performing any work in the vicinity of such facilities.

The Contractor shall protect from damage utility and other nonhighway facilities that are to remain in place, be installed, relocated, or otherwise rearranged. Attention is directed to Section 5-1.36D, “Nonhighway Facilities” of the Standard Specifications.

Information on the drawings relating to existing utility lines and services is from the best sources presently available. All such information is furnished only for information and is not guaranteed. Test pits shall be excavated as required to determine exact locations of existing utilities.

Perform work and provide necessary materials to disconnect or relocate existing utilities as indicated. Record existing utility termination points before disconnecting. Preserve in operating condition all active utilities traversing the site and designated to remain.

If the utility facilities mentioned above are not removed or relocated by the times specified and, if in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being removed or relocated by those times, the Town will compensate the Contractor for such delays to the extent provided in Standard Specifications Section 8.1.07, Delays, and not otherwise, except as provided in Standard Specifications Section 5-1.36D, Nonhighway Facilities.

Attention is directed to the references in Standard Specifications Section 9-1.04 “Force Account”, regarding payment for extra work by force account which is modified to provide that all payment for extra work by force account will be as specified in Section 5.3.02 of these Special Provisions.

5.6.10 Order of Work

Order of work shall conform to the provisions in these Special Provisions.

As a first order of work, obtain an encroachment permit and submit public notification written notices for approval by the Town of Danville.

No work may begin under contract until the Engineer has approved the Progress Schedule and Traffic Control Plan. Time required for review and approval of these items shall not constitute a basis for time extension.

The Cattle Exclusion Fencing and Gates must be erected prior to mobilization of areas outside of Diablo Road to keep cattle outside of the work area. See Section 10.9.

Location of utilities in areas with potential project conflicts shall be performed within 60 working days of the issuance of the Notice to Proceed.

5.6.11 Schedule

Progress schedules will be required for this Contract and shall conform to Section 8-1.02 "Schedule" of the Standard Specifications and these Special Provisions.

5.6.12 Mobilization

Mobilization shall conform to Standard Specifications Section 9-1.16D, "Mobilization".

5.6.13 Watering

Watering shall conform to provisions in Section 17, "Watering" of the Standard Specifications.

5.6.14 Correspondence Identification

All Contractor's correspondence to the Town of Danville shall prominently note on the document being transmitted, the *Contract Name* and *Contract Number* found on the contract specifications. (e.g. contracts, insurance, preliminary notices, submittals, letters, etc.).

SECTION 6. (Not Used)

SECTION 7. (Not Used)

SECTION 8. MATERIALS

8.1 Miscellaneous

8.1.01 General

Attention is directed to Standard Specifications Section 6, "Control of Materials", and these Special Provisions, Section 5.5.

8.1.02 Tests and Inspections

The Contractor shall notify the Engineer 24 hours, excluding weekends and holidays, prior to all required inspections, tests, or approvals.

The Town will make, or have made, such inspections and tests as the Engineer deems necessary to see that the work is being accomplished in accordance with the requirements of the Special Provisions. Unless otherwise specified in the Special Provisions, the cost of such inspection and testing and first re-test will be borne by the Town. In the event such inspections or tests reveal non-compliance with the requirements of the Special Provisions, the Contractor shall bear the cost of corrective measures deemed necessary by the Engineer, as well as the cost of subsequent re-inspection and re-testing. Neither observations by the Engineer nor inspections, tests, or approvals by others shall relieve the Contractor from the Contractor's obligation to perform the work in accordance with the Special Provisions. The Contractor shall bear the inspection costs for any inspection time lost, based on the Town's established rates, due to the work not being ready for inspection or the Contractor's failure to appear at the work site for any test or inspection which has been scheduled by the Contractor.

If any work that is to be inspected, tested, or approved is covered without concurrence of the Engineer, it shall be uncovered for inspection, testing, or approval. All costs of uncovering and recovering work exposed for inspection, testing, or approval shall be at the Contractor's expense.

The Contractor shall permit on-site videotaping, still photography, or motion picture photography of the construction project. The Contractor shall cooperate with and shall coordinate with Town personnel or their authorized representatives in its efforts to carry out such videotaping and or photography.

SECTION 9. DESCRIPTION OF WORK

9.1 General

These bids shall cover all the furnishing of all labor, material, equipment, mechanical workmanship, transportation and services which are required for **Diablo Road Pedestrian Trail and Drainage Improvement Project, Contract No. C-055.** The work generally includes, but is not limited to, removal of trees, minor regrading, construction of a pedestrian/cycle trail, installation of hot mix asphalt, construction of drainage improvements including concrete v-ditches, drainage pipes, and inlets, installation of bioretention areas, traffic control, tree replacement planting, wildlife exclusion and cattle fencing and other items that are required by the plans, standard specifications, or these Special Provisions.

9.1.01 Contract Plans

The work shall conform to the Contract Plans, all of which form a part of this specification. Up to five sets of Contract Plans and Special Provisions will be furnished to the Contractor without charge. Additional sets will be furnished on request at the cost of reproduction.

9.1.02 Permits and Licenses

Contractor shall at Contractor's expense, obtain all necessary permits and licenses for the construction of each improvement, give all necessary notices and pay all fees and taxes required by law and by the contract documents. Permits required include but are not necessarily limited to overload permit and encroachment permits. Temporary use permit(s) shall be the responsibility of the Contractor to obtain temporary use permits for the use of any private property as a staging area, equipment and/or material storage yard, etc. Use permit conditions will vary, and the Contractor should contact the Town of Danville Planning Department for specific requirements prior to submitting a bid. No work shall commence without these permits. The contractor shall comply with all conditions of the permits.

All permits required from the Town of Danville shall be issued without charge; however, the Contractor and all of his subcontractors shall obtain and pay for a business license from the Town of Danville prior to commencing work. For information about obtaining a business license, call 925-314-3312.

9.1.03 Potential Claims and Dispute Resolution

Attention is directed to Standard Specifications Section 5-1.43, “Potential Claims and Dispute Resolution”, as the exclusive claim requirement and procedures for Contractor. All Potential Claim Records shall be presented to the Town in a detailed written form rather than on Caltrans forms, however, the detailed written form must contain all information required on Caltrans form CEM-6201 available for download at http://www.dot.ca.gov/hq/construc/forms/cem6201.pdf.

SECTION 10. CONSTRUCTION DETAILS

GENERAL

All work to be done under this Contract shall conform to the applicable requirements of the Town of Danville, Development Services Department, Standard Plans, dated March 1989, and the State Standard Specifications and Standard Plans, 2023 Edition (or as otherwise noted), as revised by the latest version of the Revised Standard Specifications, herein referred to as State Standard Specifications or Caltrans Standard Specifications.

Attention is directed to the project Streambed Alteration Agreement (LSAA), “EPIMS-CCA-30250-R3” from the California Fish and Wildlife in Appendix F and the project Waste Discharge Requirements (WDR) from the San Francisco Bay Regional Water Quality Control Board, “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” in Appendix F. The contactor shall ensure that all work is performed in conformance with these project permits.

The contractor shall also perform all work in conformance with Mitigation Measures contained in the Mitigated Negative Declaration for the project certified by the Town of Danville dated August 2022 including the following:

- No discharge of pollutants from vehicle and equipment cleaning into any storm drains or watercourses.
- Vehicle and equipment fueling and maintenance operations must be located away from watercourses, except at established commercial gas stations or established vehicle maintenance facility or staging areas with BMPs installed and maintained.
- Concrete wastes will be collected in washouts and water from curing operations is collected and disposed. Neither will be allowed into watercourses.
- Spill containment kits will be maintained onsite at all times during construction operations and/or staging or fueling of equipment.
- Dust control measures will include use of water trucks and organic tackifiers to control dust in excavation-and-fill areas, covering temporary access road entrances and exits with rock (rocking) or comparable stabilization techniques, and covering of temporary stockpiles when weather conditions require.

Technical specifications are under headings that correspond with the main-section headings of the *Standard Specifications*. A main-section heading is a heading shown in the table of contents of the *Standard Specifications*.

Each technical specification begins with a revision clause that describes or introduces a revision to the *Standard Specifications* as revised by any revised standard specification.

Any paragraph added or deleted by a revision clause does not change the paragraph numbering of the *Standard Specifications* for any other reference to a paragraph of the *Standard Specifications*.

When the word "Department" appears in the Specifications, it refers to the Town of Danville.

10.1 Mobilization (Bid Item 1)

10.1.01 General

Refer to California Public Contracts Code §10104 for Mobilization requirements and Section 1-1.07B of the Standard Specifications for the definition of Mobilization.

Add to Section 9-1.16D “Mobilization” the following:

Mobilization includes preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site, for the establishment of all offices, buildings and other facilities necessary for work on the project, and for all other work and operations which must be performed or costs incurred prior to beginning work on the various items on the project site, including locating existing utilities with potential conflicts.

The Contractor’s attention is directed to the location of the project site within immediate vicinity of public schools. The contractor shall also note the high volume of bicycle and pedestrian traffic. The Contractor shall familiarize himself with the project site conditions before initiating any work. Safety of open trenches and other construction work areas is the contractor’s sole responsibility.

10.1.02 Construction Storage and Staging

Add to Section 5-1.32 “Areas for Use” the following:

Mobilization includes the erection and operation of construction storage and staging areas in coordination with Town representative.

All materials and equipment must be securely stored within the construction storage and staging area during non-work hours. The area must be kept clean in accordance with Section 5-1.31 of the Standard Specifications. Any damage caused by the contractor’s access to the area must be repaired and restored in accordance with Section 5-1.39 of the Standard Specifications.

Personal vehicles of your employees must not be parked on the traveled way or shoulders, including sections closed to traffic. Personal vehicles of employees must not occupy any public parking stalls in any part of the Town of Danville, with the exception of the construction storage and staging area as approved by the Town.

10.1.03 Tree Preservation

Refer to Section 5-1.36B “Landscape” of the Standard Specifications. Add to Section 5-1.36B the following:

Protect all existing trees within the boundaries of the project that are not to be removed from damage as indicated on the Plans. Avoid compacting the soil within the drip line of each existing trees except as indicated on the Plans..

10.1.04 As-Built Plans

Upon completion of the work and prior to project acceptance, Contractor shall submit final “As-Built” Plans that shall include all changes, both design and construction, with all shop drawings, including adequate sketches, dimensions, and notes. All revisions including those occurring during construction will be included in the Final "As-Built" Plans set.

10.1.05 Construction Project Funding Signs

Replace Section 12-2 with the following:

12-2.01 General

Section 12-2 includes specifications for installing construction project funding signs. Details for construction project funding signs are described below. Keep construction project funding signs clean and in good repair at all times.

12-2.02 Materials

Plywood must be MDO (Medium Density Overlay) finished on all sides in dark green color in a thickness of 3/4" with overall size not smaller than 4’ by 6’. Each sign may be mounted to a Type III Barricade per Standard Plan A73C for portability.

The legend for the types of funding on construction project funding signs must read as follows and in the following order:

Sign 1 (Quantity = 2): Town tree logo (obtain correct logo from Engineer)

“CIP C-055”
“FUNDING: CONTRA COSTA TRANSPORTATION AUTHORITY MEASURE J”
“COMPLETION: [Engineer to provide estimated date]”

Signs may be obtained from Signs by Tom, 23 Beta Court #E, San Ramon California, ph. 925-837-5372 or tom@signsbytom.com, or approved equal.

12-2.03 Construction

Install construction project funding signs at the locations designated by the Town before starting major work activities visible to roadway users. When authorized, remove and dispose of construction project funding signs upon completion of the project.

10.1.06 Payment

Add to Section 9-1.16D “Mobilization” the following:

The contract lump sum price paid for Bid Item 1 “Mobilization” includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in mobilization and demobilization, complete in place, including tree preservation, locating existing utilities, construction project funding signs and as-built plans, as necessary for the work shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer. Mobilization will be paid on a lump sum basis based on a percentage completed each month.

10.2 Stormwater Pollution Prevention Plan (Bid Item 2)

10.2.01 General

Refer to Section 13-3 of the Standard Specifications for requirements related to development and implementation of a Water Pollution Control Program. The soil disturbance area is greater than 1 acre and is therefore subject to Order 2022-0057-DWQ. This will require that a SWPPP document be prepared by the contractor and be filed with the State Water Resources Control Board prior to commencement of earth disturbing activities. Refer to Section 13-4 for Job Site Management requirements, Section 13-5 for Temporary Soil Stabilization, Section 13-6 for Temporary Sediment Control, Section 13-7 for Temporary Tracking Control, and Section 13-9 for Temporary Concrete Washouts. Portions of Section 13-3 relating to previous version of the State Construction General Permit shall not apply.

Add to section 13-3.01.03D:

You are responsible for penalties assessed or levied on you or the City as a result of your failure to comply with the provisions in this section “Stormwater Pollution Prevention Plan,” including, but not limited to, compliance with the applicable provisions of the Manuals, and Federal, State, and local regulations and requirements as set forth therein. See “Retention of Funds” sub-section later in this special provision.

Penalties as used in this section shall include fines, penalties and damages, whether proposed, assessed, or levied against you or the City, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Control Act, by governmental agencies or as a result of citizen suits. Penalties shall also include payments made or costs incurred in settlement for alleged

violations of the Manuals, or applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, in mitigation or to remediate or correct violations.

Notwithstanding any other remedies authorized by law, the Town may retain money due to you under the contract, in an amount determined by the Town, up to and including the entire amount of Penalties proposed, assessed, or levied as a result of your violation of the Permit, the Manuals, or Federal or State law, regulations or requirements. Funds may be retained by the Town until final disposition has been made as to the Penalties. You shall remain liable for the full amount of Penalties until such time as they are finally resolved with the entity seeking the Penalties.

Retention of funds for failure to conform to the provisions in this section, "Stormwater Pollution Prevention Plan," shall be in addition to the other retention amounts required by the contract. The amounts retained from you for failure to conform to provisions in this section will be released for payment on the next monthly estimate for partial payment following the date when an approved SWPPP has been implemented and maintained, and when water pollution has been adequately controlled, as determined by the Engineer.

During the first estimate period that the Contractor fails to conform to the provisions in this section, Stormwater Pollution Prevention Plan," the Town may retain an amount equal to 25 percent of the estimated value of the contract work performed.

10.2.02 Payment

Replace Section 13-3.04 "Payment" with the following:

"Stormwater Pollution Prevention Plan" will be paid for on a lump sum basis. This includes all work associated with implementing your authorized SWPPP, including preparing documents, performing inspection, competing paperwork, furnishing, constructing, maintaining, removing, and disposing of water pollution control materials, including, but not limited to, fiber rolls, polyethylene plastic sheeting, stabilized construction entrances, erosion control fabric, gravel bags, silt fencing, and inlet protection. Payment will be made according to Section 13-3 of the Standard Specifications, with 75% of the item total paid upon authorization of the SWPPP and the final 25% of the item paid upon Contract acceptance.

10.3 TEMPORARY TRAFFIC CONTROL (Bid Item 3)

Add to 12-1.01**:**

Traffic control during construction shall be the responsibility of the Contractor. All traffic control devices shall be in accordance with the most recent California Manual on Uniform Traffic Control Devices (California MUTCD).

Submit a temporary traffic control (TTC) plan fifteen (15) calendar days prior to beginning of work. The plan must be in conformance with these specifications and approved by the Engineer prior to beginning work. Any revisions to the approved traffic control plan must be submitted to the Engineer for approval a minimum of two working days prior to intended use of revised traffic control plan. One lane of Diablo Road may be utilized by the contractor between the hours of 9:00 AM to 4:00 PM during weekdays unless otherwise negotiated with the Town. Open full width of Diablo Road for use by public traffic on Saturdays, Sundays and designated holidays; after 3:00 p.m. on Fridays and the day preceding designated holidays; and when construction operations are not actively in progress. TTC shall be coordinated with the local school schedule to minimize traffic delay during pick-up and

drop-off times.

Temporary traffic control is paid through the lump sum bid item of Traffic Control System. Any work necessary to control traffic not covered by other individual bid items is included in the lump sum price paid for Traffic Control System.

Add to Section 12-1.03:
Provide flaggers at any location where free-flowing 2-way traffic cannot be accomplished due to construction and if it becomes necessary, in the opinion of the Engineer, to properly move traffic through the construction area, flagmen shall be present to slow down and reroute traffic. Flagmen shall be on duty the entire period the roadway is used for staging of construction equipment. Where flagmen are not visible to each other, additional flagmen shall be added as required by the Engineer, or the Contractor must use radios.

All flagging costs are paid for as part of Traffic Control System.

Relace Section 12-1.04 with:
All work within Section 12 is paid for as Traffic Control System, except for work within Section 12-3.11 which is paid for as Construction Area Signs. Payment for construction area signs and barricades described as part of a traffic control system will be paid for as Traffic Control System.

Portable changeable messages signs as requested by the Engineer, or included in the traffic control plan, are paid for as Traffic Control System.

The adjustment provisions in Section 4-1.05, "Changes and Extra Work," of the Standard Specifications, shall not apply to the bid items Traffic Control System or Construction Area Signs. Adjustments in compensation for traffic control system and construction area signs will be made only for increased or decreased traffic control system or construction area signage required by changes ordered by the Engineer and will be made on the basis of the cost of the increased or decreased traffic control necessary.

Such adjustment will be made on a force account basis as provided in Section 9-1.04, "Force Account," of the Standard Specifications for increased work, and estimated on the same basis in the case of decreased work.

Payment for Traffic Control System and Construction Area Signs will be made in the form of monthly, prorated payments, no part of which will be approved for payment under the Agreement until the initial progress schedule and schedule of values have been furnished as specified herein.

Add to 12-3.01C:
Furnishing, installing, maintaining, moving, removing traffic control equipment and devices and performing lane closures ordered by the Engineer will be paid as part of Traffic Control System.

Add to 12-4.01A with:
Construction is within Town of Danville public right-of-way. Provisions must be made for the safe passage of vehicular and pedestrian traffic around the area of the work at all times. Every effort must be made by the Contractor to permit unobstructed pedestrian and bicycle access Diablo Road during construction.

The fact that rain or other causes may force suspension or delay of the work does not relieve you

from your responsibility for maintaining both pedestrian and vehicle traffic around the project and providing local access as specified herein. You must at all times keep on the job such materials and equipment as may be necessary to keep streets and pathways within the project area open to the public and in good repair.

Should you fail, in the opinion of the Engineer, to provide all the materials, work force and equipment necessary to maintain public access around the work area as set forth herein, the Town, upon the recommendations of the Engineer, may take steps necessary to suspend the Contract. The Town may then, upon such suspension, cause such work to be done as may be necessary to maintain public access, and charge same against you and sureties including overhead and legal expenses.

Take all necessary measures to obtain a normal flow of traffic to prevent accidents and to protect the work throughout the construction stages until completion of the work. Make the necessary arrangements to provide and maintain barriers, cones, guards, barricades, and construction warnings and regulatory signs. Take measures necessary to protect all other portions of the work during construction and until completion, providing and maintaining all necessary barriers, barricade lights, guards, temporary crossovers and watchmen.

In addition to the foregoing traffic control and safety measures, immediately implement any measures requested by the Engineer to ensure the proper flow of traffic and the protection of the public and the safety of the workers. Maintain at all times the ability to respond to calls from the Danville Police and San Ramon Valley Fire Protection District during non-working hours to replace or provide additional traffic control or safety devices as shall be required by the Police Department.

Personal vehicles of the Contractor’s employees must not be parked on the paved shoulders or the traveled way, including any section closed to public traffic.

At the end of each day’s work, and at other times when construction operations are suspended, all equipment and other obstructions shall be removed from that portion of roadway open for use by public traffic.

Local authorities are defined as, but not limited to, Town of Danville, Contra Costa County Sheriff's Department, California Highway Patrol, local Fire Department, United States Post Office, local waste management companies, local transit agencies, Emergency Response Companies and/or all businesses or regular users whose ability to perform their daily job will be affected by road closures, detours or general work by the Contractor.

If necessary, provide traffic control to allow the Engineer to mark out dig outs or areas to be reconstructed.

If work vehicles or equipment are parked within 6 feet of a traffic lane, close the shoulder area with fluorescent orange traffic cones or portable delineators. Place the cones or delineators on a taper in advance of the parked vehicles or equipment and along the edge of the pavement at 25-foot intervals to a point not less than 25 feet past the last vehicle or piece of equipment. Use at least 9 cones or delineators for the taper. Use a W20-1, “Road Work Ahead,” W21-5b, “Right/Left Shoulder Closed Ahead,” or C24(CA), “Shoulder Work Ahead,” sign mounted on a crashworthy, portable sign support with flags. The sign must be placed as ordered by the Engineer and at least 48 by 48 inches in size. If a cone or delineator is displaced or overturned, immediately restore the device to its original position or location.

Your vehicles are subject to the provisions under chapter 13, “Vehicular Crossings,” of the Vehicle Code.

The traffic control plan must include all locations, which involve all project improvements and shall indicate each stage of work, signage, flashing arrow signs, flagman, detour routes, and any other pertinent information. The traffic control plan shall be reviewed and approved by the Engineer before the Contractor is allowed to begin work. The Town reserves the right to modify any portion of the plan.

The traffic control plan must include a pedestrian detour plan to route pedestrian traffic around the work area. Custom signage shall be installed to direct pedestrians to cross at adjacent intersections/crosswalks and indicate the portions of sidewalk that will be closed to pedestrian traffic, as directed by the Engineer. Contractor shall maintain safe pedestrian access to adjacent businesses during all phases of construction.

The location of traffic control devices shall be checked by the Contractor especially at the beginning of the work period and periodically throughout the workday, to ensure that the devices are properly placed and maintained.

Conduct all operations with the least possible obstruction and inconvenience to the public. The Contractor must have under construction no greater length or amount of work than can be completed within a workday with due regards to the rights of the public.

Work shall be accomplished in such a manner as to provide access to all intersecting streets and adjacent properties whenever possible. If access to any property cannot be provided, then adequate nearby parking shall be provided and maintained until direct access can again be restored. If during the course of the work, it is necessary to restrict access to certain driveways for an extended period of time, notify the affected residents and businesses, in writing, at least forty-eight (48) hours in advance.

To minimize the disruption to public traffic:

1. Permit local traffic to pass through the work with the least possible inconvenience or delay.
2. Permit buses to safely stop and load/unload passengers at adjacent bus stop while providing sufficient room for traffic to pass. Maintain pedestrian access to bus stop.
3. Maintain existing driveways, commercial and residential, within the vicinity of the work area, keeping them open and in good, safe condition at all times.
4. Remove or repair any condition resulting from the work that might impede traffic or create a hazard.
5. Keep existing traffic signal and roadway lighting systems in operation throughout the construction work.

To protect the right of abutting property owners:

1. Conduct the construction so that the least inconvenience as possible is caused to abutting property owners.
2. Maintain ready access to houses or businesses along the line of work, including ramps over bypass.
3. Notify all parties at least five (5) days, and again in 48 hours, in advance of work which would affect their access.

The Contractor is responsible for providing adequate safeguards, safety devices, protective equipment, and any other needed actions to protect life, health, and safety of the public, and to protect property in

connection with the performance of the work covered by the contract. The Contractor must perform any measures or actions the Town or the Engineer may deem necessary to protect the public and property.

The full width of the traveled way shall be open for use by public traffic on designated legal holidays, and when construction operations are not actively in progress.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

Where existing road signs are in conflict with the proposed work, relocate such signs to temporary or permanent locations as directed by the Engineer.

Add to the end of section 12-4.02C(1):

If a closure is not reopened to traffic by the specified time, work must be suspended. No further closures are allowed until the Engineer has reviewed and accepted a work plan submitted by you that insures that future closures will be reopened to traffic at the specified time. Allow the Department 2 business days to review your proposed work plan. You are not entitled to compensation for the suspension of work resulting from the late reopening of closures.

For each 10-minute interval, or fraction thereof past the time specified to reopen the closure, the Town will deduct $500.00 per interval from moneys due or that may become due to the Contractor under the contract.

Replace 12-4.02C(3)(f) with:

No project activity is allowed on designated Town of Danville holidays without approval from the Engineer. The Contractor's schedule must reflect this activity prohibition and no additional working days will be granted. Said holidays include:

New Year's Day*	January 1st
Martin Luther King Day	Third Monday of January
Presidents' Day	Third Monday of February
Memorial Day	Final Monday of May
Independence Day	July 4th
Labor Day	First Monday in September
Veterans' Day	November 11th
Thanksgiving	Fourth Thursday in November plus Friday after Thanksgiving
Christmas Holidays	December 25th plus Day after or day before Christmas
Holiday Furlough	Days between Christmas Holidays and New Year's Day

If the dates above designated by an * fall on a Saturday or Sunday, the holiday will instead be observed on either the preceding Friday or the following Monday.

Add to the end of section 12-4.02C(7)(a):

For a stationary lane closure made only for the work period, remove components of the traffic control system from the traveled way and shoulder, except for portable delineators placed along open

trenches or excavation adjacent to the traveled way at the end of each work period. You may store the components at selected central locations designated by the Engineer within the limits of the highway.

Replace 12-5 with:

12-5 TRAFFIC CONTORL SYSTEM FOR LANE CLOSURE

During lane closure, control traffic with a stationary or a moving lane closure. A flashing arrow sign used in a moving lane closure must be truck mounted. Operate the flashing arrow sign in the caution display mode whenever it is being used on a 2-lane, 2-way highway. During other activities, control traffic with stationary lane closures. For a stationary lane closure made only for the work period, remove components of the traffic control system from the traveled way and shoulder, except for portable delineators placed along open trenches or excavation adjacent to the traveled way at the end of each work period.

Replace 12-6.04 with:

All work associated with furnishing, placing, maintaining, and removing temporary traffic stripes and pavement markings is paid for as Traffic Control System.

10.3.01 Payment

Add to Section 9 “Payment” of the Standard Specifications the following:

“Temporary Traffic Control (Bid Item 3)” will be paid for on a lump sum basis based on a percentage complete each month.

Add to Section 12-1.04, “Payment”: The contract lump sum price paid for Bid Item 3 “Traffic Control” includes full compensation for furnishing all labor (including preparation of the Traffic Control Plan and flaggers when necessary), materials (including flashing arrow signs, barricades, door hangers and temporary traffic delineation), tools, equipment, and incidentals and for doing all the work involved in traffic control, complete in place, including all work necessary to provide for the convenience & safety of the public, temporary pedestrian passage (ramps, walkways, etc.), and to facilitate the performance of the contract work as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The contract unit price paid for Bid Item 3 shall also include costs associated with two “Portable Changeable Message Sign” and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in portable changeable message sign installation and maintenance, complete in place, including placing, maintaining, trailering, moving from site to site, and protection, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Replace Section 12-1.04 “Payment” with the following:

100% of the flagging costs will be paid as part of Temporary Traffic Control.

Replace Section 12-3.01C “Construction” with the following:

Furnishing, installing, maintaining, moving, removing traffic control equipment and devices and performing lane closures ordered by the Engineer will be paid as part of Temporary Traffic Control bid item.

Replace Section 12-3.02D “Payment” with the following:

Payment for barricades described for a traffic control system will be paid as part of Temporary Traffic Control.

Replace Section 12-3.11D “Payment” with the following:
Payment for construction area signs described for a traffic control system will be paid as part of Temporary Traffic Control.

The adjustment provisions in Section 4-1.05, "Changes and Extra Work," of the Standard Specifications, shall not apply to Bid Item3 “Traffic Control”. Adjustments in compensation for traffic control system will be made only for increased or decreased traffic control system required by changes ordered by the Engineer and will be made on the basis of the cost of the increased or decreased traffic control necessary.

Such adjustment will be made on a force account basis as provided in Section 9-1.04, "Force Account," of the Standard Specifications for increased work, and estimated on the same basis in the case of decreased work. The lump sum amount for Bid Item 3 “Traffic Control” as set forth in the Bid Schedule will be made in the form of monthly, prorated payments, no part of which will be approved for payment under the Agreement until the initial progress schedule and schedule of values have been furnished as specified herein.

10.4 Solid Waste Disposal and Recycling Report (Bid Item 4)

10.4.01 General

Refer to Section 14-10 of the Standard Specifications for specifications on solid waste disposal and recycling report. The Town of Danville expects its contractors, as part of its bid, to consider the economic benefits of recycling construction and demolition materials. As such, the Contractor shall include, as part of its contract cost, the recycling of construction and demolition materials. At least 50% of job-site waste shall be diverted from landfills.

10.4.02 Green Halo

Obtain the names of local recyclers from Central Contra Costa Solid Waste Authority at (925) 906-1801 or by visiting Green Halo at www.greenhalosystems.com or at (888)-525-1301. Create an account with Green Halo as instructed in Appendix D.

10.4.03 Solid Waste Disposal and Recycling Report

Replace Section 14-10.02A (1) with:
14-10.02A (1) Submittals
Submit a Solid Waste Disposal and Recycling Report for the project using the Green Halo on-line software. Show the types and amounts of project-generated solid waste taken to or diverted from landfills or reused in accordance with the 50% diversion requirement of this project.

10.4.04 Payment

Add Section 14-10.02A “Payment”:
Solid Waste Disposal and Recycling Report (Bid Item 4) will be paid for on a lump sum basis. Payment will be made upon submittal of the final Solid Waste Disposal and Recycling Report.

The contract lump sum price paid for Bid Item 4 "Solid Waste Disposal and Recycling Report" includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals for

doing all the work involved in preparing and submitting the solid waste disposal and recycling report, as specified in plans, the Standard Specifications, and the special provisions, and as directed by the Engineer.

Full compensation for recycling, including diversion of 50% of job-site waste from landfills, shall be considered as included in the contract prices paid for the various contract items of work and no separate payment will be made therefore.

10.5 CPM Schedule (Bid Item 5)

10.5.01 General

Refer to Section 8-1.02 “Schedule” of the Standard Specifications for specifications on the required Schedule.

10.5.02 Payment

Add to Section 8-1.02D (10), “Payment”:
The contract lump sum price paid for Bid Item 5 "CPM Schedule" includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in developing, preparing, obtaining approval of, revising, amending, and implementing the CPM schedule, as specified in plans, the Standard Specifications, and the special provisions, and as directed by the Engineer.

10.6 Clearing and Grubbing and Demolition (Bid Item 6)

10.6.01 General

Description: Clearing, grubbing and demolition shall conform to the provisions in Section 16, "Clearing and Grubbing," of the Standard Specifications, these Special Provisions and as follows;

This work shall consist of removal and disposal from within the limits of the project as indicated on the Plans:

1. All objectionable material including vegetation, shrubs, bushes, dead trees, miscellaneous pavements, irrigation components, temporary plastic sheeting, ballast, stakes, fencing, & miscellaneous improvements not indicated on the plans to remain, and not covered specifically by other bid items. The limits of clearing and grubbing shall be of sufficient area and depth to complete the work as shown on the plans or described in these Special Provisions.
2. Stripped topsoil, including all soil contaminated with organic matter shall be removed from the site for disposal by the Contractor at the Contractor’s cost.
3. All activities controlled by the Contractor, except cleanup or other required work, shall be confined within the right-of-way, public easement areas, or as shown on the Plans.
4. Removal of existing barb wire fence and gate structure being completed only after new fencing has been constructed.
5. Removal of concrete watering trough as indicated on the Plans.
6. Removal of small trees and shrubs and bushes in the general work area with trunk diameters less than 8-inches which are not specifically indicated on the plans or specifically covered under Section 10.7.
7. Removal of small Chinese Pistache trees as indicated on the plans. Tree trunks should be removed to two feet below finished grades.
8. The Contractor shall protect and maintain conduits, drains, sewers, pipes, and wires that are not to be demolished.

9. Please note that Demolition of existing culverts near Wall #1 and removal of concrete debris from Green Valley Creek are included in Section 10.17 as separate bid items.
10. Nothing herein shall be construed as relieving the Contractor of his responsibility for final cleanup of the highway as provided in Section 4-1.02, "Final Cleaning Up," of the Standard Specifications.

10.6.02 Measurement and Payment

The quantity for Clearing, Grubbing and Demolition will be measured on a lump sum basis. Payment will be made at the contract lump sum price for "Clearing, Grubbing and Demolition" **(Bid Item No. 6)**, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in clearing, grubbing and demolition, removal of vegetation, shrubs, bushes, miscellaneous pavements, irrigation components, temporary plastic sheeting, ballast, stakes, fencing, & miscellaneous improvements as shown on the Plans, as specified in the Standard Specifications, as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.7 Tree Removal, Trimming and Root Pruning (Bid Item 7a and 7b))

10.7.01 General

The Town has performed extensive tree removal in the area of the trail alignment in areas between Stations 3+00 to 9+75. However, some additional tree trimming and removal will need to be performed to allow access for construction equipment to access certain areas and to accommodate the final trail alignment. Tree trimming is anticipated between Stations 0+00 to 5+00, 10+50 to 14+00 and 20+00 to 30+00. The contractor shall hire an Arborist certified by the Western Chapter of the International Society to provide recommendations to trim any tree over 15-feet in height. The Arborist's report shall be furnished to the Town prior to commencement of trimming activities.

Several walls (Soldier Pile Walls 1, 2 and 3) are to be placed in areas where tree removals have recently occurred. Additional root removal will be likely be required in these areas during wall construction.

It is the contractor's sole responsibility to perform tree removal, trimming and root removal to the satisfaction of the Engineer.

<u>Tree Removals:</u>

The removal of trees shown on the Plans shall occur in conformance with the project LSAA in areas between Stations 0+00 to 10+50. Additional trees may be removed in this area to allow construction access with approval from the Town. However, this may trigger additional tree mitigation and should only be done with approval from the Town. All Tree removals and trimming throughout the project require a Town paid Biologist to clear the trees of nesting birds and may only be performed per dates specified in the project LSAA (September and March 1st – April 15th).

Contractor shall take care removing trees, so that trees in direct vicinity and / or those whose limbs are located within the canopy of the trees to be removed are not damaged. Grind stumps to a depth of 24" below grade, removing all large roots near the surface and temporary backfill with soil material.

<u>Tree Trimming:</u>

1. Tree limbs or other vegetation obstructions in the trail alignment shall be trimmed as necessary to allow equipment access to the work area. The contractor shall become familiar

with the trail alignment and existing vegetation at the beginning of the project and make their own assessment as to the extent of tree trimming that needs to be performed based on the type of equipment to be used. The crown of the tree shall be balanced as necessary. Balancing of the crown of the tree shall be accomplished by thinning, reducing end weights, shortening long heavy limbs, removing deadwood, weak limbs, and sucker growth. Limbs shall be pruned back to an appropriate lateral branch.

2. Tree limbs shall not be torn or ripped. All final pruning cuts shall be clean cuts.
3. Trees and vegetation shall be trimmed in such a manner as not to injure adjacent trees, plants, and or improvements which are to be preserved.
4. Cuts or damage to areas of tree bark caused by the Contractor's trimming operations shall be treated with a sealer such as "Tre-hold", or equivalent, as approved by the Engineer. Application of the tree sealer shall be made according to the manufacturer's printed recommendations.
5. All trimmings and debris generated from these operations shall be removed completely from both the public right of way and adjacent private property and properly disposed of in a legal manner.

Root Pruning:

6. Where excavation work occurs adjacent to or over tree roots, the roots shall be removed to a minimum depth of at least 8 inches below the bottom of the new improvements. Roots shall be cut as far from the tree as possible alongside the edge of the excavation. Roots must be completely severed prior to their removal.
7. If removal of a root is determined by the Engineer to potentially endanger the stability or health of the tree, or to cause slope stability issues in existing slope conditions, the Contractor shall provide the Engineer with the findings and avoid cutting the roots until approval from the Engineer has been received.
8. Root pruning shall be achieved by use of a Vermeer root cutter or equivalent method approved by the Engineer. Tree roots may occasionally be cut by sawing or chopping with a sharp saw or axe on an individual case basis, but only with the express approval of the Arborist and the Engineer.
9. Tree roots shall not be torn or ripped. All final root pruning cuts shall be clean cuts.
10. Cuts on tree roots 1-inch diameter or larger and areas of bark or skin damage caused by root pruning operations shall be treated with a root sealer and growth inhibitor.
11. At sites where excavation has exposed living roots to the air the Contractor shall cover the exposed roots within 2 hours of exposure with base rock, soil, moist burlap, or other means acceptable to the Engineer. Inspection by the Engineer is required prior to permanent backfill or wall construction.

Disposal of Demolished Materials:

Demolition and removal of debris associated with tree trimming and removal shall be conducted to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities which shall not be closed or obstructed without permission from the Town. Alternate routes shall be provided around closed or obstructed traffic ways.

Site debris, rubbish, and other materials resulting from demolition operations shall become the property of the Contractor and shall be removed by the Contractor at the Contractor's expense to a suitable site. The proper and legal disposal of demolished materials shall be the responsibility of the Contractor.

Clean Up:

During and upon completion of work the Contractor shall promptly remove unused tools and equipment, surplus materials, rubbish, debris, and dust and shall leave areas affected by work in a clean, approved condition.

Quality Assurance

All trimming work and removal of tree roots of living trees shall be performed under direct supervision of and in conformance with recommendations of an arborist certified by the Western Chapter of the International Society of Arboriculture at the contractor's expense. Submit copies of supervising arborist's certification to Engineer prior to performing any work.

Quality Control

Contractor shall be held responsible for any damage to trees, vegetation, or private property caused by its construction operations or trees that die after improper pruning or trimming.

Furnish all tools and equipment and employ trained tree trimmer personnel under direction of Contractor paid arborist to operate all equipment and perform all handwork efficiently and skillfully

Safety

Tree trimming and tree removal work shall be performed in a safe and proper manner adhering to Division of Occupational Safety and Health (Cal/OSHA) standards and ANSI regulations.

This section references occupational safety and health standards in Chapter 4 (Safety Orders) of California Code of Regulations (CCR) that are enforced by Cal/OSHA, in particular Title 8 worker safety and health standards:

Subchapter 7. General Industry Safety Orders
Group 3. General Plant Equipment and Special Operations
Article 12. Tree Work, Maintenance or Removal

Section 3423. Electrical Hazards, General

> (a) Employees engaged in tree work operations such as, but not limited to, tree trimming, maintenance and removal in proximity to electrical equipment and conductors, shall be instructed regarding the following:
>
> > (1) To consider all such equipment to be energized with potentially fatal voltages, never to be touched (contacted) either directly or indirectly.
> >
> > (2) Electrical shock will occur when a person, by either direct contact or indirect contact with an energized electrical conductor, energized tree limb, tool, equipment, or other object, provides a path for flow of electricity to a grounded object or to the ground itself. Simultaneous contact with two energized conductors phase to phase will also cause electric shock that may result in serious or fatal injury.

(3) Electrical shock may occur as a result of ground fault when a person stands near a grounded object. For example, if an uninsulated aerial device with its outriggers down comes into contact with a conductor.

(4) In the event of a downed energized electrical conductor or energized grounded object, there exists hazard of step potential.

(b) (1) Employees shall not perform tree trimming activities within 10 feet of high voltage energized power lines and conductors unless employee meets requirements of subsection (c).

(2) A qualified tree worker shall be permitted to perform tree trimming activities within 10 feet, but no closer than 1 foot, of energized low voltage (600 volts or less) power lines and conductors, provided that qualified tree worker is trained and competent in the following:

(A) Skills and techniques necessary to identify components of an electrical system, including the ability to distinguish exposed live parts from other parts of electric equipment;

(B) Skills and techniques necessary to determine difference between low and high voltage energized conductors and equipment;

(C) Minimum approach distances that must be maintained as specified in this section corresponding to voltages to which an employee will be exposed, and

(D) Skills and work practices necessary to avoid contact with electrical lines and conductors, including use of personal protective equipment and insulating or non-conductive tools.

(c) Line clearance tree trimming operations as defined in Section 2700 of High-Voltage Electrical Safety Orders (related to electrical equipment and conductors in excess of 600 volts) shall be conducted in accordance with Article 38 of High-Voltage Electrical Safety Orders. Only qualified line clearance tree trimmers, or trainees, as defined in Section 2700 of the High-Voltage Electrical Safety Orders shall be permitted to perform such line clearance tree trimming work.

NOTE: Sections 2940.2 and 2951 of High-Voltage Electrical Safety Orders provide minimum approach distances and requirements for line clearance operations.

(d) Metal core rope used in a climbing system shall not be used in proximity to energized electrical equipment and conductors

10.7.02 Measurement and Payment

The quantity for Tree Removal will be made on a unit price basis. Payment will be made at the contract unit price for Tree Removal **(Bid Items No. 7a)**. The quantity for Tree Trimming and Root Removal will be measured on a lump sum basis. Payment will be made at the contract lump sum price for Tree Trimming and Root Removal **(Bid Items No. 7b)**. Both items shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all

the work involved in trimming, clearing, and removal of trees as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.8 Silt Fence and Wildlife Exclusion Fence (Bid Item 8)

10.8.01 General

The Contractor shall install a silt fence and a wildlife exclusion fence around the perimeter of the project near Green valley Creek site prior to commencement of clearing and grubbing operations and maintain the fences for the duration of the project.

Silt Fence:

The silt fence should conform to Section 96 of the Standard Specifications and be installed in conformance with California Association of Stormwater Quality standards.

Wildlife Exclusion Fence:

A wildlife exclusion fence must also be installed behind the silt fence and should conform to requirements from the California Department of Fish and Wildlife.

The exclusion fencing shall consist of ERTEC E-Fence or equal as approved by the Engineer.

1. The exclusion fencing shall either measure at least 36 inches tall above the soil surface or be of an appropriate height for exclusion of wildlife that could inhabit the project area.

2. The Town Paid Qualified Biologist or Biological Monitor shall inspect the fencing immediately following every rain event to ensure it maintains structural integrity. Holes or burrows which appear to extend under the fencing will be blocked inside the fence line to prevent wildlife from accessing work areas.

3. The bottom of the exclusion fencing shall not allow wildlife to pass through gaps or holes with the bottom of the fencing buried six (6) inches below grade.

5. The exclusion fencing shall be taut between the supporting stakes and shall have the supporting stakes oriented on the inside edge so that wildlife cannot use the stakes to enter the excluded area.

6. The exclusion fencing shall feature coverboards inside and outside the perimeter placed at 100-foot intervals and one-way escape doors or an appropriate design for preventing wildlife from being trapped in an area that is under active construction.

7. If fencing becomes damaged, it will be immediately repaired upon detection and the Qualified Biologist shall stop work in the vicinity of the fencing as needed to ensure that no wildlife has entered the construction area.

8 Fencing system entry/exit points for vehicular and pedestrian traffic shall be constructed so wildlife cannot access the area under active construction during non-work hours.

9. The Qualified Biologist shall inspect the project area prior to installation of the exclusion fencing. The exclusion fencing system shall remain in place until all construction activities have been

completed. All components of the exclusion fencing will be removed for storage or disposal off-site immediately upon completion of construction activities.

10.8.02 Measurement and Payment

The quantity for Silt Fence and Biological Exclusion Fence will be measured on a linear foot basis. Payment will be made at the contract linear foot price for Silt Fence and Biological Exclusion Fence **(Bid Items No. 8)**, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in temporary fence installation as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.9 Cattle Exclusion Fence and Gate System (Bid Items 9a, and 9b)

10.9.01 General

The Contractor shall install a cattle exclusion fence around the perimeter of the project site prior to commencement of clearing and grubbing operations and maintain the fence for the duration of the project. The contractor should contact the ranching operation of the Magee Preserve project, Tom Magee, at 1-925-389-2264 to ensure that cattle are secured within the Preserve prior to installation of the fence. This may require that the existing fence is left in place prior to installation of the new fence. The fence shall conform to East Bay Regional Park District standard plan 801 and shall connect to existing cattle exclusion fencing at both ends of the project as approved by the Town. One additional gate system is required at an existing fire road entrance as shown on the Plans (**Bid Item 9b)** and shall include both an equestrian/pedestrian gate (East Bay Regional Park District standard plan 217) next to and to the west of a Wide Trail Gate (East Bay Regional Park District standard plan 211A) intended for the fire road access. The exact alignment of the Cattle Exclusion Fence will need to be determined in the field in several areas as shown on the Plans, to avoid existing trees and to preserve recently constructed existing trails in the Magee Preserve which will require approval by the Engineer prior to installation as indicated on the Plans. In this area, the contractor shall familiarize themselves with this area and propose an alignment that avoids conflicts and minimizes bends for approval by the Town. The contractor shall also construct a 20-linear foot-wire gate along an existing cross-fence located at Sta. 33+00 on the plans.

10.9.02 Measurement and Payment

The quantity for Cattle Exclusion Fence will be measured on a linear foot basis. Payment will be made at the contract linear foot price for Cattle Exclusion Fence **(Bid Item No. 9a)**. Payment will be made at the contract lump sum price for gate system **(Bid Item No. 9b)**, Both items shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved fence installation and gates as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.10 Earthwork (Remove and Remove and Replace) (Bid Item 10 and 11)

10.10.01 General

These specifications are intended as a guide for the earthwork performed at the subject project. If there is a conflict between these specifications, including and agency or code requirements, it should be brought to the attention of the Engineer prior to bidding. Earthwork shall be in accordance with Section 19 of the Standard Specifications and these Special Provisions except as noted below.

10.10.02 Work Covered

Grading, excavating, moisture conditioning soil, filling and backfilling, including trenching and backfilling for utilities as necessary to complete the project as indicated on the plans.

10.10.02.1 Codes and Standards

A. Excavating, trenching, filling, backfilling, and grading work shall meet the applicable requirements of the California Department of Transportation and the standards and ordinances of state and local governing authorities.

10.10.02.2 Definitions

A. Fill: All soil, rock, or soil-rock materials placed to raise the grades of the site or to backfill excavations.

B. Backfill: All soil, rock or soil-rock material used to fill excavations and trenches.

C. On-Site Material: Soil and/or soil-rock material which is obtained from the site.

D. Imported Material: Soil and/or soil-rock material which is brought to the site from off-site areas.

E. Select Material: On-site and/or imported material which is approved by the Engineer as a specific-purpose fill.

F. Engineered Fill: Fill upon which the Engineer has made sufficient observations and tests to confirm that the fill has been placed and compacted in accordance with specifications and requirements.

G. Degree of Compaction or Relative Compaction: The ratio, expressed as a percentage, of the in-place dry density of the fill and backfill material as compacted in the field to the maximum dry density of the same material as determined by ASTM D-1557.

H. Optimum Moisture: Water content, percentage by dry weight, corresponding to the maximum dry density as determined by ASTM D-1557.

I. ENGEO: The project geotechnical engineering consulting firm, its employees or its designated representatives.

J. Drawings: All documents, approved for construction, which describe the Work.

10.10.02.3 Observations and Testing

A. All site preparation, cutting and shaping, excavating, filling, and backfilling shall be carried out under the observation of ENGEO, employed and paid for by the Town. ENGEO will perform appropriate field and laboratory tests to evaluate the suitability of fill material, the proper moisture content for compaction, and the degree of compaction achieved. Any fill that does not meet the specification requirements shall be removed and/or reworked until the requirements are satisfied.

B. Cutting and shaping, excavating, conditioning, filling, and compacting procedures require approval of the Town as they are performed. Any work found unsatisfactory, or any work

disturbed by subsequent operations before approval is granted shall be corrected in an approved manner as recommended by ENGEO and/or the Town of Danville.

C. Field testing of soils or compacted fill shall conform with the applicable requirements of ASTM D-2922.

D. All authorized observation will be paid for by the Town.

10.10.02.4 Fill and Backfill

A. Select engineered fill and backfill used for structure construction shall be native soil, defined as hillside or creekbank native soils excavated from onsite areas and shall be approved by the Engineer. . Material to be used for engineered fill and backfill shall be free from organic matter and other deleterious substances, and of such quality that it will compact thoroughly without excessive voids when watered and rolled. Excavated on-site material will be considered suitable for engineered fill and backfill if it contains no more than 3 percent organic matter, is free of debris and other deleterious substances and conforms to the requirements specified above. Rocks of maximum dimension in excess of 6 inches shall be removed from any fill material to the satisfaction of ENGEO.

B. Excavated earth material which is suitable for engineered fill or backfill, as determined by ENGEO, shall be conditioned for reuse and properly stockpiled as required for later filling and backfilling operations. Conditioning shall consist of spreading material in layers not to exceed 8 inches and raking free of debris and rubble. Rocks and aggregate exceeding the allowed largest dimension, and deleterious material shall be removed from the site and disposed off site in a legal manner.

C. ENGEO shall be notified at least 48 hours prior to the start of filling and backfilling operations so that it may evaluate samples of the material intended for use as fill and backfill. All materials to be used for filling and backfilling require the approval of and will be tested by ENGEO.

10.10.02.5 Staking and Grades

Contractor shall lay out all his work, establish all necessary markers, benchmarks, grading stakes, and other stakes as required to achieve design grades.

10.10.02.6 Remedial Grading

As indicated on the Plans, several areas of the trail alignment will require removal and recompaction of existing loose or otherwise unstable materials at the direction of ENGEO. Fill in these areas shall conform to subgrade preparation specifications in Section 10.10.2.8.

10.10.02.7 Existing Utilities

A. The bottoms of excavations shall be firm undisturbed earth, clean and free from loose material, debris, and foreign matter including tree roots.

B. Earthwork for trail area and walls shall conform to Section 19-1 general and Section 19-2 roadway excavation. Grade tolerance shall be 0.1 feet. Compaction of fill and backfill shall between 87 to 90 percent of the maximum dry density (ASTM D-1557).

C. Excavations shall be kept free from water at all times. Adequate dewatering equipment shall be maintained at the site to handle emergency situations until backfill is placed.

D. Excavated earth material which is suitable for engineered fill or backfill, as determined by ENGEO, shall be moisture-conditioned for reuse and properly stockpiled for later filling and backfilling operations as specified under Section 2.02, "Soil Materials."

E. Abandoned sewers, piping, and other utilities encountered during excavating shall be removed and the resulting excavations shall be backfilled with engineered fill as required by ENGEO.

F. Unsuitable or excess earth material shall be off-hauled to a site approved by the Town at the contractor's expense.

G. Contractor shall verify the location and depth (elevation) of all existing utilities and services before performing any excavation work.

H. Any active utility lines encountered shall be reported immediately to the Engineer and authorities involved. The Town and proper authorities shall be permitted free access to take the measures deemed necessary to repair, relocate, or remove the obstruction as determined by the responsible authority or Town's Representative.

10.10.02.8 Subgrade Preparation

A. All brush and other rubbish, as well as trees and root systems as designated by the Arborist, shall be removed from the site and legally disposed.

B. Any existing structures or debris must be removed from the site prior to any grading or fill operations. The resulting depressions shall be properly prepared and filled to the satisfaction of the Engineer.

C. Vegetation and organic topsoil shall be removed from the surface upon which the fill is to be placed and either removed and legally disposed of or stockpiled for later use in approved landscape areas. The surface shall then be scarified to a depth of at least eight inches until the surface is free from ruts, hummocks, or other uneven features which would tend to prevent uniform compaction by the equipment to be used.

D. After the foundation for the fill has been cleared and scarified, it shall be made uniform and free from large clods. The proper moisture content must be obtained by adding water or aerating. The foundation for the fill shall be compacted at the proper moisture content to a relative compaction as specified herein.

10.10.02.9 Engineered Fill

A. Select Material: Fill material shall be "Select" or "Imported Material" as previously specified.

B. Placing and Compacting: Engineered fill shall be constructed by approved and accepted methods. Fill material shall be spread in uniform lifts not exceeding 8 inches

in uncompacted thickness. Each layer shall be spread evenly, and thoroughly blade-mixed to obtain uniformity of material. Fill material which does not contain sufficient moisture as specified by ENGEO shall be sprinkled with water; if it contains excess moisture it shall be aerated or blended with drier material to achieve the proper water content. Select material and water shall then be thoroughly mixed before being compacted.

C. Unless otherwise specified in the Geotechnical Exploration report, each layer of spread select material shall be compacted to at least 87 to 90 percent relative compaction at a moisture content of at least three percentage points above the optimum moisture content.

D. Testing and Observation of Fill: The work shall consist of field observation and testing to determine that each layer has been compacted to the required density and that the required moisture is being obtained. Any layer or portion of a layer that does not attain the compaction required shall be reworked until the required density is obtained.

E. Compaction: Compaction shall be by sheepsfoot rollers, multiple-wheel steel or pneumatic-tired rollers or other types of acceptable compaction equipment. Rollers shall be of such design that they will be able to compact the fill to the specified compaction. Rolling shall be accomplished while the fill material is within the specified moisture content range. Rolling of each layer must be continuous so that the required compaction may be obtained uniformly throughout each layer.

F. Fill slopes shall be constructed by overfilling the design slopes and later cutting back the slopes to the design grades. No loose soil will be permitted on the faces of the finished slopes.

G. Strippings and topsoil shall be stockpiled as approved by the Engineer, then placed in accordance with ENGEO's recommendations to a minimum thickness of 6 inches and a maximum thickness of 12 inches over exposed open space cut slopes and track walked to the satisfaction of ENGEO.

H. Final Prepared Subgrade: Finish blading and smoothing shall be performed as necessary to produce the required density, with a uniform surface, smooth and true to grade.

10.10.03 Measurement and Payment

The quantity for earthwork will be measured on a lump sum basis Payment will be made at a lump sum price for earthwork (remove) and earthwork (remove and replace) **(Bid Item No. 10 and 110)**, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in earthwork operations as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.11 Drainage Structures (Bid Item 12, 13, 14 and 15)

10.11.01 General

Drainage improvements include installation of storm drain pipes, drainage inlets and installation of concrete V-ditches.

Storm drain pipe installation shall be in accordance with Section 64 of the Standard Specifications and these Special Provisions.

Add to Section 64-2.04: Payment for pipe includes payment for excavation; furnishing and placing pipe bedding, pipe, aggregate base, and backfill; shoring (if necessary); placing native material; and all other work to completely install pipe, excluding hot mix asphalt and concrete.

10.11.02 Field Inlets and Pipes

Drain inlets shall be constructed as shown on the Plans All pipe materials, related appurtenances, pipe bedding, and trench backfill shall conform to the requirements of the American Society for Testing and Materials (ASTM) Standard Specifications and these Special Provisions.

Drain inlets and manholes shall meet the requirements of Caltrans Specifications Section 51, “Concrete Structures”.

The initial stage of haunching shall consist of hand tamping material at the sides and under the pipe at six-inch (6") maximum lifts to the spring line in order to provide adequate support. The Contractor shall call for inspection of the haunching operation prior to placing initial backfill. Failure to call for haunching inspection shall be just cause for rejection of all pipe work.

Initial backfill shall be placed to a point at least six inches (6") above the top of pipe. Compaction for the initial backfill shall consist of hand tamping or mechanical tamping at 1.0’ maximum lifts. Extreme caution shall be taken during mechanical tamping to avoid deflection of the pipe. The type and size of mechanical equipment to be used in the initial backfill operation shall be approved by the Engineer. Both zones of haunching and initial backfill shall be compacted by hand or mechanical tamping to a 90 percent minimum relative compaction.

Neither jetting nor flooding will be allowed in haunching or initial backfill zones. The remainder of the backfill operation shall be in accordance with the plans.

The Engineer may require compaction testing. All costs associated with the initial compaction tests shall be borne by the Town; all subsequent retesting shall be paid for by the Contractor.

All pipe shall be laid with bell end "upgrade", unless otherwise permitted by the Engineer.

All storm drain laterals shall have a minimum cover of 12" from the top of the pipe the bottom of the asphalt pavement section. In cases where this does not exist, the pipe shall be encased in concrete.

Pipe deflection shall be in accordance with the manufacturer's recommendations.

Relative compaction of not less than 95 percent shall be obtained in all trenches within the paved portion of the right-of-way for a minimum depth of 2.5 feet below finished grade.

At the end of each day’s work all trenches outside the paved section shall be backfilled or properly covered and barricaded to the satisfaction of the Engineer. A "hot mix" patch shall be placed in all paved sections and approved by the Engineer prior to completion of the project.

Proper implements, tools, and facilities satisfactory to the Engineer shall be provided and used by the Contractor for safe, convenient, and workmanlike prosecution of the work. Under no circumstances shall the pipe or accessories be dropped or dumped into the trench. Before

lowering and while suspended, the pipe shall be inspected for defects. Any defective, damaged, or unsound pipe shall be rejected and sound material furnished.

When the installation of new facilities interferes with the existing storm water flow, the Contractor shall provide a satisfactory bypass system at his expense.

Where ground water is present, the bottom of the trench shall be kept entirely free of water during pipe laying operations and pumping shall continue until backfilling has progressed to a sufficient height to prevent flotation of the pipe. Water shall be disposed of in such a manner as to cause no property damage or be a hazard to public health. Full compensation for handling any ground water intrusion shall be considered as included in the price paid for the various Contract items of work and no additional compensation will be allowed.

The assembly of all fittings and manhole connections shall be in accordance with the manufacturer's specifications and shall be approved by the Engineer. Manhole connections shall be achieved by use of manhole coupling adapters, rubber ring water stops, or other approved methods.

10.11.03 Concrete V-ditches

The Contractor shall complete installation of concrete V-ditches , as shown on the project plans and as directed by the Engineer. All work in this section shall be done in accordance with Section 73, "Concrete Curbs and Sidewalks" of the Caltrans Standard Specifications, except as modified in these Special Provisions.

10.11.04 Measurement and Payment

The quantity for drainage structures will be measured on either a unit price or linear foot basis. Payment will be made pre-cast field inlets (**Bid Item 12a**) and cast-in-place type "J' inlets (**Bid Item 12b**) on a unit price basis and at the contract linear foot price for Reinforced Concrete Pipe, Corrugated Metal Pipe and Concrete V-ditch **(Bid Items No. 13, 14 and 15)**, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in temporary fence installation as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.12 Bioretention Areas (Bid Item 16)

10.12.01 General

The Contractor shall build two bioretention areas on as shown on the plans. Bioretention areas shall consist of subdrains, Class 2 Permeable Materials, Bioretention Soil Mix, and Rock Energy Dissipation consistent with 2023 Contra Costa Clean Water Program requirements. Planting of the areas is not required as part of the contract.

10.12.02 Measurement and Payment

The quantity for bioretention areas will be measured on a square foot basis. Payment will be made for bioretention areas (**Bid Item 16**) on a unit price basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in the installation of the bioretention areas as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.13 Mechanically Stabilized Earth Walls (Bid Item 17)

10.13.01 General

The Contractor shall build two mechanically stabilized earth (MSE) walls on as shown on the plans. Walls consist of shall consist of subdrains, geogrid reinforcement, Class 2 Permeable Material, geocomposite drain, HDPE liner, backfill ,Block wall, and concrete work associated with drainage pipes penetrating through the face of wall. All work shall conform to State Standard Specification Section 47-2.

10.13.02 Measurement and Payment

The quantity for MSE walls will be measured on a linear foot basis. Payment will be made for MSE walls (**Bid Item 17**) on a linear foot price basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in the installation of the MSE as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed

10.14 Soldier Pile Walls and Debris Walls (Bid Item 18 and 19)

10.14.01 General

The Contractor shall build soldier pile walls and Debris Walls as shown on the plans. Walls consist of drilled piers, steel reinforcement and lagging materials. The project permits do not allow dewatering of creek flow during solider pile wall installation along Green Valley Creek. The contractor shall familiarize themselves with the area prior to the start of construction and submit a plan to the satisfaction of the Town that demonstrates that construction means and methods will not impact Waters of the State to the maximum extent practicable.

All work in this section shall be done in accordance with Section 51, “Concrete Structures” of the Caltrans Standard Specifications, except as modified in these Special Provisions.

10.14.02 Excavation

The Contractor constructing the wall shall be familiar with the sequence of wall excavation described in the project plans. Placement of lagging shall immediately follow excavation in front of the wall.

10.14.03 Solider Beam Installation

Excavations required for soldier beam placement shall be performed to the dimensions and elevations shown on the Contract Drawings. The methods and equipment used shall be selected by the Contractor.

The Contractor shall ensure that the sidewalls of the predrilled holes (i.e., shafts) do not collapse during drilling. Uncased shafts may be used where the sides and the bottom of the shaft are stable and may be visually inspected prior to placing the soldier beam and concrete. Casing or drilling muds shall be used where the sides of the shaft require additional support.

The Contractor shall provide equipment for checking the dimensions and alignment of each shaft excavation. The dimensions and alignment shall be determined by the Contractor but shall be observed by the Geotechnical Engineer. The Engineer will check the alignment of the drilling equipment at the beginning of shaft construction and periodically thereafter. Final shaft depth shall be measured after final cleaning by the Contractor.

Loose material shall be removed from the bottom of the shaft. No more than 2 feet of standing water shall be left in the bottom of the shaft prior to beginning soldier beam installation.

The soldier beam shall be placed in the shaft without difficulty and aligned prior to general placement of concrete. The Contractor may place up to 2 ft. of concrete at the bottom of the shaft to assist in aligning the soldier beam. The soldier beam shall be blocked or clamped in place at the ground surface, prior to placement of concrete.

For shafts constructed without casing or drilling muds, concrete (either structural or lean-mix backfill) may be placed by free-falling the concrete from the ground surface down the shaft and around the soldier beam. If casing is used, the placement of concrete shall begin prior to casing removal. Remove the casing while the concrete remains workable. For shafts constructed using slurry, concrete shall be placed using the tremie method from the bottom of the shaft. The tremie pipe shall be withdrawn slowly as the level of the concrete.

Excess water may be disposed of in the area were cofferdams have been installed at the direction of the Engineer. Discharge of water shall conform to applicable County requirements and shall not be directly placed into the creek.

10.14.04 Pin Holes

Concrete shall conform to the provisions in Section 18, "Portland Cement Concrete," of the State Standard Specifications and these special provisions.

Concrete strengths shall be verified by standard cylinder tests, unless approved otherwise by the Towns inspector at no cost to the contractor. Required ultimate compressive strength shall be reached 28 days.

fc (psi)	Minimum Cement Per Cubic Yard	Max Water Per 94 lb. of Cement	Max. Water Per 94 lb. of Cement When Using Air Entraining Agent	Use
2500	5 sacks	6 gallons	5¼ Gallons	Pile concrete

The Contractor shall submit concrete mix designs to the Engineer for approval two weeks prior to placing any concrete.

The pile holes shall be drilled with rotary equipment capable of drilling 30-inch-diameter holes up to 50 feet deep to designated lines and grades through soil and rock formations that may contain groundwater.

If the drilled holes experience caving prior to placement of concrete, the holes shall be cleaned out and then cased to maintain an open bore hole. The casing shall be extracted as concrete is placed.

Concrete shall be placed using a pump supplied tremie pipe or tube positioned such that the concrete does not free fall.

If groundwater accumulates in the drill hole the groundwater shall be pumped from the drill hole prior to placement of concrete. Alternatively, the concrete can be placed using a tremie pipe provided

that measures are taken to maintain and verify that the drill hole is clean and open prior to placement of concrete. Discharge of water shall conform to applicable Town requirements and permits.

During the drilling operations, the Contractor shall determine the depth of the drilled hole using a measuring tape or by other means satisfactory to the Engineer. The Contractor shall furnish all labor, materials, tools, equipment, and incidentals necessary for determining the depth of the drilled holes.

10.14.05 Wall Tolerances

Solider beams shall be placed at the locations shown on the Contract Drawings and shall not deviate by more than 2 inches along the horizontal alignment of the wall unless approved by the Engineer. The wall shall not deviate from the vertical alignment shown of the Contract drawings by more than 4-inches in each plane.

The soldier beam or sheet-pile tip shall be installed to within 1 foot of the specified tip elevation shown on the Contract Drawings.

The Contractor shall provide corrective measures for any wall element that does not meet the tolerance requirements described in this Specification. Any proposed corrective measure must be approved by the Owner in writing.

10.14.06 Welding and Spacing

Splicing of sheet-piles or soldier beams shall not be permitted, unless approved by the Owner. All structural welding of steel and steel reinforcement shall be performed by certified welders qualified to perform the type of welding shown on the Shop Drawings. Welding may be required at 120-degree bends shown on the plan. All sheet-piles or soldier beams shall be cutoff to a true plane at the elevations shown on the Contract Drawings. All cutoff lengths shall remain the property of the Contractor and shall be properly disposed.

10.14.07 Drainage System Installation

The Contractor shall handle the prefabricated drainage composite in such a manner as to ensure the composite is not damaged in any way. Care shall be taken during placement of the composite not to entrap dirt or excessive dust in the composite that could cause clogging of the drainage system. Delivery, storage, and handling of the drainage composite shall be as provided in the plans or based on manufacturer's recommendations.

Drainage composite strips shall be placed and secured tightly against the timber lagging with the fabric facing the lagging. A continuous sheet of drainage composite that spans between adjacent soldier beams shall not be allowed. Seams and overlaps between adjacent composites shall be made according to the special provisions or manufacturer's recommendations and specifications. Repairs shall be performed at no additional cost to the Owner and shall conform to the plans or manufacturer's recommendations.

Where drainage aggregate is used to construct a vertical drain behind the permanent wall and in front of the lagging, the drainage aggregate shall be placed in horizontal lifts. The construction of the vertical drain should closely follow the construction of the precast facing elements. Care should be exercised to ensure that connection devices between wall elements and facing elements are not damaged during the placement of the drainage aggregate.

Perforated collector pipe shall be placed within the permeable material to the flow line elevations and at the location shown on the Contract Drawings. Outlet pipes shall be placed at the low end of the collector pipe and at other locations shown or specified in the Contract Drawings.

10.14.08 Backfill and Geogrid Placement Behind Soldier Pile Walla

The contractor shall backfill and provide geogrid behind the wall in accordance with the project Plans for Solider Pile walls along Green Valley Creek. Backfilling of debris walls with fill material compacted at 90% relative compaction up to 6-inches below the top of wall is also required.

10.14.09 Lagging Installation

Timber Lagging shall conform to Section 57-2.02 of the Caltrans Standard Provisions and be installed per Caltrans Detail for Timber Lagging Dated 7-12-16. Timber shall be Treated Douglas Fir or better, partially air dried with smooth finishing.

Concrete Lagging shall conform to contract drawings.

10.14.10 Measurement and Payment

The quantity for solider pile walls will be measured on a linear foot basis. Payment will be made for Soldier Pile Wall with Concrete Lagging (**Bid Item 19**) and Debris Wall with Timber Lagging **(Bid Item 19)** on a linear foot price basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in the installation of the walls, and backfill and geogrid, as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.15 Thrie Beam Barrier and End Treatment (Bid Item 20)

10.15.01 General

The contractor shall detach end treatment at existing Thrie Beam Barrier near project Station Work 10+50 and extend railing as shown on the plans and install end treatment near the trailhead. All required under this Section consists of furnishing all necessary labor, materials, tools, equipment and services in connection with guardrail installation and reasonably incidental to the loading, transporting, depositing, and installation of guardrails necessary for construction of the guardrails as indicated on the plans, specified here in, and as directed by the Engineer. The guardrail may conflict with an existing gas line as shown on the Plans. The contractor shall notify the Town immediately if a conflict in anticipated.

10.15.02 Guard Rail System

Guardrails shall be constructed to conform to the Standard Drawings as shown on the plans. Guardrails should be installed in conformance with Section 83 of the State Standard Specifications and. The guardrail shall not be offset more than 8-inches behind the edge of pavement.

10.15.03 Measurement and Payment

The quantity for Thrie Beam rail system will be measured on a linear foot basis. Payment will be made for Thrie Beam systems (**Bid Item 20**) on a linear foot price basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all

the work involved in the installation of the walls as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.16 Rock Riprap (Bid Item 21)

10.16.01 General

Work required under this Section consists of furnishing all necessary labor, materials, tools, equipment and services in connection with riprap installation and reasonably incidental to the loading, transporting, depositing, and installation of riprap necessary for construction of the rock aprons as indicated on the plans, specified here in, and as directed by the Engineer.

10.16.02 Materials

Rock material certifications are required for gradation of each class of rock and shall conform to State Specifications in Section 72 of the State Standard Provisions.

All rock used shall be quarry rock, angular, close grained, and hard. Rock shall be free of seams or thin layers of soft or decomposed material to the end that it will not shatter, disintegrate, break down, or open up on dumping or exposure to weather or water action. Rock shall conform to gradation shown on the plans.

10.16.03 Measurement and Payment

The quantity for rock riprap will be measured on a per ton basis. Payment will be made for Rock riprap (**Bid Item 22**) on a unit basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in the installation of the rock riprap as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed

10.17 Remove Concrete Debris and Plug Existing Culverts (Bid Item 22 and 23)

10.17.01 General

Work required under this Section consists of furnishing all necessary labor, materials, tools, equipment and services in connection with removing concrete debris and plugging two existing culverts as indicated on the plans and reasonably incidental to the loading, transporting, depositing, and installation as indicated on the plans, specified here in, and as directed by the Engineer. The debris should be removed from the creek with great care as dewatering of the creek is not permitted for this project. This work should be performed in conjunction with installation of Wall #1.

10.17.02 Measurement and Payment

Payment will be made for (**Bid Item 22 and 23**) on a lump sum bases and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in the removing concrete debris, plugging the existing culverts and adding subdrains, and backfilling as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.18 3” Hot Mix Asphalt and Aggregate Base (Bid Items 25 and 26)

10.18.01 General

Refer to Section 39-2 “Hot Mix Asphalt” of the 2010 Standard Specifications for specifications on producing and placing Type A HMA using the standard construction process, using a V-mix design.

Aggregate gradations must conform to Section 39-2.02B(4)(b) of Standard Specifications. Maximum aggregate size shall be 1/2 inch.

10.18.02 Materials

Asphalt binder shall be PG64-10.

Delete the second paragraph of section 39-2.01A(1) of the Standard Specifications in Section 39 “Hot Mix Asphalt”.

Warm-mix asphalt technology must not be used.

Add to Section 39-2.01B(10) “Tack Coat” of the Standard Specifications the following:

Tack coat shall be Grade SS-1h asphaltic emulsion.

Aggregate Base shall meet State Standard Specifications

10.18.03 Construction

Add to section 39-2.01C(1) of the Standard Specifications in Section 39-2 “Hot Mix Asphalt” the following:

Aggregate Base shall be compacted to 95% ASTM (1446) and be underlain by a geogrid material (Tensar InterAx NC 650 or equal) **(Bid Item 25b)** as shown on the Plans.

Do not place the final lift of hot mix asphalt until all underlying improvements have been installed.

HMA placed in the top layer of the surfacing must be obtained from only one hot mix asphalt plant. At locations where the HMA is to be placed is inaccessible to an asphalt paver or spreader box, spread the HMA by methods that will obtain the specified results and compacted to the required lines, grades and cross sections.

When the plans show areas where new paving 8-feet or less in width, the HMA may be spread in these areas with a spreader box. The spreader box must be self-supported by wheels or tracks and have a screed that will produce a compacted surface of uniform smoothness and texture conforming to the provisions in Standard Specifications Section 39-2.05A(3)(b), “Spreading and Compacting Equipment.”

Pavement edge joins and match lines shall be neatly and cleanly cut prior to excavation. Cutting shall be by sawcutting or grinding, or as approved by Engineer.

Clean and thoroughly sweep all trail surfaces immediately prior to applying tack coat.

Add to Section 39-2.01C(3)(f) the following:

Tack coat shall be applied to all surfaces prior to placement of new AC, with exception that tack coat is not required to be applied to aggregate base surfaces. Application rate shall be 0.10 gallons per square yard at locations where paving mat is not used. Application rate at locations where paving mat is used shall be as specified in the above section entitled Engineered Pavement Reinforcing Mat.

Area to which paint binder has been applied shall be closed to public and heavy construction traffic. Care shall be taken to avoid tracking binder material onto existing pavement surfaces beyond limits of construction.

Contractor is responsible for damage to existing infrastructure, and any AC, liquid asphalt or asphalt emulsion stains. Damage shall be cleaned by sandblasting or any other method satisfactory to Engineer.

All existing drainage patterns are to be maintained unless otherwise directed by Engineer.

Finished AC surfaces that do not meet all specified surface tolerances shall be brought within tolerance by abrasive grinding (with fog seal coat on areas that have been ground). Deviations in excess of 0.03" that cannot be brought into specified surface tolerances by abrasive grinding shall be corrected by either removal and replacement or placing an AC overlay. Method will be at the option of Contractor with approval of Engineer. All corrective work shall be at Contractor's expense, including traffic control cost.

When abrasive grinding is used to bring finished AC surface to specified surface tolerances, additional abrasive grinding shall be performed as necessary to extend the area ground in each lateral direction so that lateral limits of grinding are at a constant offset from and parallel to nearest lane line or pavement edge, and in each longitudinal direction so that grinding begins and ends at lines normal to pavement centerline, within the ground area. All ground areas shall be neat rectangular areas of uniform surface appearance.

Schedule paving operations so that each layer of AC is placed on the trail during each work shift. Kraft paper or other approved bond breakers may be placed under conform tapers to facilitate removal of taper when paving operations resume.

Tensar Glasgrid (Tensar Glassgrid 8502) **(Bid Item 25a)** or approved equal should be installed under the first lift of HMA section per the Plans.

10.18.04 Measurement and Payment

Payment will be made for 3-inch HMA pavement (**Bid Item 24a**) on a per ton basis and Aggregate Base (**Bid Item 24a**) on a cubic yard basis. Payment will be made for Glassgrid and Interax Geogrid (**Bid Items 25a and 25b**) on a square yard basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in the placement of HMA and glass grid (or approved equal), aggregate base materials and geogrid and as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed. Bid item 25b does not include geogrid required to build retaining structures in Section 10.13 and Section 10.14.

10.19 Hardwood Trees/Shrubs with Cages and Mulch and Drip Irrigation, and Willow or Cottonwood Poles (Bid Item 26a, 26b, 26c, 26d and 27)

10.19.01 General

The plans indicated the general area of plant locations and quantity of plants. More trees may need to be added if additional tree removals are required per the project Streambed Alteration Agreement. The Town assumes the contractor will have the majority of trees and shrubs contract grown at a Nursery and will plant the project in November – December 2026. It is required that seed stock for these trees come from the San Francisco East Bay Region. The planting plan shall generally

conform to the project *Tree Replacement and Mitigation Plan for Diablo Road Trail*, April 2024 prepared by Sequoia Ecological Consulting Inc.

Do not start planting until authorized by the Town paid Restoration Ecologist. Submit nursery invoices showing sizes, quantities, and botanical names of plants, including genus, species, and variety and mulch. At least 20% of the container plans shall consist of 5-gallon stock. Container plants shall be grown in such a manner as to be free of *Phytophthora ramorum* (Sudden Oak Death) in accordance with the project Streambed Alteration Agreement (SAA). Nursery certificates are required with submittal materials showing compliance with Measure 3.4 of the Streambed Alteration Agreement.

10.19.01.2 Planting Quantities

These following quantities are estimated for the project and may be slightly adjusted after any additional tree removals are performed.

65 – Coast Live Oak (*Quercus Agrifolia*).
33 – Valley Oak (*Quercus Lobata*)
32 – California Buckeye (*Aesculus califórnica).*

At least 26 of the above trees planted onsite must be of 5-gallon size (**Bid Item 26a**), the remainder shall be 1-gallon size (**Bid Item 26b**).

The following shrubs **(Bid Item 26c)** are also included on the planting palette shown on the Plans and are 1-gallon size.

50 – *Coyote Brush* (Baccharis Pilularis).
55 – *California Wild Rose* (Rosa Californica)

10.19.02 Site Preparation - Hardwood Trees/Shrubs

Contractor shall mark each planting location with a flag prior to commencement of planting per the Project Plans. The Engineer may designate a location other than that shown on the plans upon inspection of locations, in which case, the Engineer may alter the location of the flag, or other marker to the preferred location. Planting may commence as directed by The Engineer. Excavate each planting hole by manual or machine method. The bottom of each planting hole must be flat. Do not use water to excavate the hole. Unless a larger planting hole is described, the planting hole must be large enough to receive the root ball or the total length and width of roots, backfill, amendments, and fertilizer. Where rock or other hard material prohibits the hole from being excavated, a new hole must be excavated and the abandoned hole backfilled.

Do not plant plants in soil that is too wet, too dry, not properly amended as described, or in an unsatisfactory condition for planting. Do not distribute more plants than can be planted and watered on that day. Water plants immediately after planting with at least 1 gallon of water per plant. Apply water until the backfill soil around and below the roots or ball of earth around the roots of each plant is thoroughly saturated. If watering with a hose, use a nozzle, water disbursement device, or pressure reducing device. Do not allow the full force of the water from the open end of the hose to fall within the basin around any plant. Wood mulch shall be Fibar Engineered Wood Fiber or equal placed around each container plant.

10.19.03 Temporary Anti-Browse Cages / Temporary Irrigation System

Temporary anti-browse cages shall be installed around each hardwood tree and shrubs per project plans using poultry netting or other cage approved by the Engineer. All anti-browse cages shall be

installed to the satisfaction of The Engineer. The contractor shall also install an on-grade drip installation system (**Bid Item 26d**) that can be manually attached to a typical garden hose. Drip tubing should be anchored to the ground using 6" landscape staples on approximately 10' spacing and buried at least 3-inches from finished grade. Each tree and shrub shall receive 2-2GPH drip emitters, on the uphill side of the root-ball. Tubing shall be EZ-ID 17 mm Dripline Tubing (Landscape Products) or equal connected to a Hose Swivel at an elevation higher than each of the plants on the drip tubing system.

10.19.04 Willow and Cottonwood Poles

Willows and Cottonwoods shall be planted at the toe of the slope in the Green Valley Creek channel in areas indicated on the plans using live stakes. The trees will be established using native pole cuttings collected locally from willow and cottonwood trees. The vicinity of the project area in coordination with Town of Danville staff. Cuttings collected from willow donor plants will ensure that genetically local and pre-adapted stock is used. Cuttings shall be planted directly on site. Cuttings shall be a minimum of four feet long, one inch to two inches in diameter at the thick end and consist of non-succulent material (i.e., one year old or older). Ideal pole size is considered to be 1 to 1 ½ inches in diameter and four to five feet in length. Cuttings should be planted directly after collection. Interim storage is permitted provided that cuttings are kept cool and moist. Cuttings can be stored in a cool location submerged in buckets of water. The water must be changed daily. Ideally, cuttings should not be stored longer than one week; however, cuttings can be stored for longer periods of time if they are stored in refrigeration to retard the premature development of roots. For long-term storage, pole cuttings should be stored at below 24°F in sealed plastic bags to prevent desiccation (Cram and Lindquist 1982).

Willow cuttings must be:
1. Reasonably straight
2. Cut square above a leaf bud to form the tip
3. Cut at an approximate 45-degree angle at the base below a leaf bud
4. Cut square at the top above a leaf bud
5. Trim off leaves and branches flush with the cutting stem
6. From 48 to 56 inches in length
7. From 3/4 to 1-1/2 inches in diameter at the base of the cutting

At least 50 percent of the base of the cuttings must be soaked for a minimum of 5 days, but not more than 30 days in fresh clean water to allow buds to swell prior to planting. Cuttings must be soaked in a shaded location until the time of planting. Cuttings that have been soaking for more than 30 days must be discarded.

10.19.05 Measurement and Payment

Payment will be made for (**Bid Item 26a, 26b, 26c, and 27**) on a unit price basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in installing plants, mulch, cages as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed. **Bid Item 26d** will be compensated on a lump sum basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in installing a temporary irrigation system as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.20 Erosion Control Fabric and Seed Mix (Bid Items 28 and 29)

10.20.01 General

Work required under this Section consists of furnishing all necessary labor, materials, tools, equipment and services in connection with erosion control fabric and seed mix as indicated on the plans, specified here in, and as directed by the Engineer.

10.20.02 Seed Mix

The Contractor shall seed the areas where grading has occurred on slopes before blanket installation for erosion control and re-vegetation. All areas disturbed during installation must be reseeded. Seed should consist of the following mix or approved equivalent:

Regreen (Elymus x triticum)	12.0 lbs/acre
Creeping wildrye (Leymus triticoides)	8.0 lbs/acre
Mugwort (Artemesia douglasiana)	4.0 lbs/acre
Blue Wildrye (Elymus glaucus)	8.0 lbs/acre
Meadow Barley (Hordeum brachyantrerum)	4.0 lbs/acre
Milkweed (Asclepias spp.)	0.5 lb /acre
Total (lbs/acre)	36.5 lbs/acre

Milkweed is required per the project Streambed Alteration Agreement and may not be substituted.

Seed Mix shall be applied as designated on the drawings before the erosion control fabric is placed.

Broadcast seeding by hand is recommended to seed the Creek bank area. Seeding will be accomplished under erosion control fabric matting. The optimum season for direct seeding is fall, when moisture, temperatures, and plant physiology are most favorable for establishment. If seeding with natives outside this biological window is conducted, irrigation and/or reseeding may be required. If necessary after grading, all bare soil areas should be seeded with a nurse crop of sterile wheat grass to stabilize the freshly graded areas prior to seeding with the recommended mix.

In the fall, the soil should be scarified, after compaction is mitigated through mechanical methods. Seed should be applied with hand-held spreaders to scarified soil and the site should be raked so that approximately ⅛ to ½ inch of soil covers the seed. No watering is necessary if adequate winter rains ensue. Erosion control matting will be installed directly over seeded areas.

10.20.03 Erosion Control Fabric

Temporary erosion control fabric (ECF): ECF shall be Curlex I or equivalent as approved by the Engineer. Temporary Erosion Control Fabric should be installed over disturbed areas with slopes exceeding a 2:1 (Horizontal:Vertical) gradient. Adjacent to embedment locations, place extra row of staples with 1 foot min. or tightest practical spacing. Details shall be consistent with manufacturer's recommendations.

The Contractor shall submit a manufacturer's certification that the erosion mat/blanket supplied meets the criteria specified when the material was approved by the Engineer. The manufacturer's certification shall include a submittal package of documented test results that confirm the property values. In case of a dispute over validity of values, the Contractor will supply property test data, to support the certified values submitted. Minimum average roll values, per ASTM D 4759, shall be used for conformance determinations.

Erosion control fabric with monofilament netting is not permitted.

10.20.03.1 Erosion Control Fabric Execution

Delivery, Storage, and Handling: Contractor shall check the erosion control material upon delivery to ensure that the proper material has been received. During all periods of shipment and storage, the erosion mat shall be protected from temperatures greater than 140°F, mud, dirt, and debris. Manufacturer's recommendations in regard to protection from direct sunlight must also be followed. At the time of installation, the erosion mat/blanket shall be rejected if it has defects, tears, punctures, flaws, deterioration, or damage incurred during manufacture, transportation, or storage. If approved by the Engineer, torn or punctured sections may be removed by cutting out a section of the mat. The remaining ends should be overlapped and secured with ground anchors. Any erosion mat/blanket damaged during storage or installation shall be replaced by the Contractor at no additional cost to the Owner.

Placement: After application of seed mix, the erosion control material shall be placed and anchored on a smooth graded, firm surface approved by the Engineer. Anchoring terminal ends of the erosion control material shall be accomplished through use of key trenches. The material in the trenches shall be anchored to the soil on maximum 1½-foot centers. Topsoil, if required by construction drawings, placed over final grade prior to installation of the erosion control material shall be limited to a depth not exceeding 3 inches.

Installation of Slopes

Begin at the top of the slope and staple as indicated on the plans.
Unroll blanket downslope from top of bank towards channel.
The edges of adjacent parallel rolls must be overlapped 2 to 3 inches (51 to 76 mm) and be stapled every 3 feet (0.9 m).
When blankets must be spliced, place blankets end over end (shingle style) with 6-inch (0.2 m) overlap. Staple through overlapped area, approximately 12 inches (0.3 m) apart.
Lay blankets evenly and maintain direct contact with the soil; do not stretch.
Blankets shall be stapled sufficiently to anchor blanket and maintain contact with the soil, as specified by the manufacturer. Staples shall be placed down the center and staggered with the staples placed along the edges. Steep slopes, 1:1 to 2:1, require at least 2 staples per square yard. Moderate slopes, 2:1 to 3:1, require at least 1 to 2 staples per square yard (1 staple 3’ o.c.). Gentle slopes require at least 1 staple per square yard.

Erosion control material shall be anchored, overlapped, and otherwise constructed to ensure performance until vegetation is well established. Anchors shall be as designated on the construction drawings. U-shaped wire staples, metal geotextile stake pins, or triangular wooden stakes can be used to anchor mats to the ground surface. Wire staples shall be a minimum of 11 gauge. Metal stake pins shall be 3/16 inch (4.8 mm) diameter steel with a 1½-inch (38.1 mm) steel washer at the head of the pin. Wire staples and metal stakes shall be driven flush to the soil surface. All anchors shall be 6 to 8 inches (0.2-0.5 m) long and have sufficient ground penetration to resist pullout. Longer anchors may be required for loose soils.

10.20.04 Measurement and Payment

Payment will be made for (**Bid Item 28 and 29**) on a square yard or square foot basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in the erosion control fabric and seed mix installation as required

by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.21 Install Trash Capture Devices (Bid Item 30) and 31)

10.21.01 General

Work required under this Section consists of furnishing all necessary labor, materials, tools, equipment and services in connection with installing catch basin trash capture device as indicated on the in drainage inlets near Diablo Road. The trash capture device shall be an Oldcastle Basin Inlet Filter FF-2D or equal, as approved by the Engineer. This item should be completed after all construction activities are completed.

10.21.02 Measurement and Payment

Payment will be made for (**Bid Item 30)**) on a lump sum bases and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in installing trash capture devices required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.22 Install ADA Compliant Drinking Fountain (Bid Item 31)

10.22.01 General

Work required under this Section consists of furnishing all necessary labor, materials, tools, equipment and services in connection with installing a drinking fountain at the entrance of the project and connecting it to an existing water service as indicated on the plans. The overflow for the sump of the drinking fountain shall discharge into the nearby bioretention basin. The drinking fountain shall conform to East Bay Regional Park District Standard Plan 616 version 3 or equal, and as approved by the Engineer.

10.22.02 Measurement and Payment

Payment will be made for (**Bid Item 31)** on a lump sum bases and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in installation of the ADA compliant drinking fountain as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.23 Install Interpretive Signage (Bid Item 32)

10.23.01 General

There are two interpretive signs which will be installed as part of this contract. The Town shall supply electronic files of the artwork associated with these signs to the contractor for fabrication. Interpretive Sign #1 is 24-inches by 48-inches. Interpretive Sign #2 is 32-inches by 40-inches. Both signs should be fabricated on an 1/8-inch exterior panel with a matte finish. Fabrication, Pedestal and Framing can be performed and furnished by Izone Imaging, or as approved by the Engineer. Each sign should be framed and mounted on a double cantilevered pedestal at a 45-degree angle at least 3-feet above ground. Posts anchored a minimum of 2-feet in the ground encapsulated with a minimum of 6-inches of concrete. Each sign should have a 10-year warranty from the manufacturer.

10.23.02 Measurement and Payment

Payment will be made for (**Bid Item 31)** on a lump sum basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work

involved in fabrication and installation of the interpretive signs as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.24 Install Trailhead and Caution Signage (Bid Item 33)

10.24.01 General

There are two entrance signs and three “steep grade” signs that shall be installed on the project per East Bay Regional Park Standard Detail 301 . The Town shall supply electronic files of the artwork associated with the entrance sign to the contractor for fabrication. The two entrance signs are 24-inches by 30-inches and shall be printed on a green background on High Intensity Aluminum (0.080”). the entrance signs should be available to the contractor by December 2025. The “steep grade” signs shall conform to the image below:

The “steep grade” sign shall be 24-inches by 24-inches and shall be printed on High Intensity Aluminum (0.080”) with a yellow background.

10.24.02 Measurement and Payment

Payment will be made for (**Bid Item 33)** on a lump sum basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in fabrication and installation of the signs as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.25 Install Railing (Bid Item 34)

10.25.01 General

Railing shall be installed behind the five walls on the project and shall project beyond the limit at least 2 feet as shown on the Plans. Railing shall be manufactured by Kee Systems by Flexible Lifeline Systems 2437 Peyton Rd. Houston Tx 77032, comply with ADA requirements, and have wire mesh panels. Any substitutions shall be approved by the Engineer. Railing shall be sufficiently anchored in accordance with the project plans for all walls. Railings shall be founded at least 2 feet 8 inches below finished grade in 1 foot diameter holes backfilled with concrete.

10.25.02 Safety Railings Performance and Design Requirements

Performance and Design Requirement for pipe and tube railing design.

1.All materials must comply with the following:

a.International Building Code/International Code Council.

b.OSHA Standard Pipe Railing: 1910.29 Fall Protection systems and falling object protection.

c.Local code requirements by authorities having jurisdiction.

.

2.Structural Performance: Railings and Attachments: Withstand effects of gravity loads and the following loads as specified.

a.Recommended Maximum Post Spacing: 72 inches (1829 mm).

b.Minimum Height: 42 inches (1067 mm).

c.Intermediate Rail Height: 21 inches (533 mm).

3. Handrails and Top Rail of Railing Systems:
   a)Uniform Load: 50 lbf per ft. (0.73 kN per m) in any direction.
   b)Concentrated Load: 200 lbf (0.89 kN) in any direction.
   c)Uniform and concentrated loads need not be assumed to act concurrently.

10.25.03 Measurement and Payment

Payment will be made for (**Bid Item 34)** on a linear foot basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in fabrication and installation of the railing as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.26 Install Sidewalk (Bid Item 35)

10.26.01 General

A sidewalk shall be constructed as shown on the plan to connect the trail on the opposite side of Diablo Road to an existing trail near St. Timothy's Church. The sidewalk shall conform to Town of Danville standards as indicated on the Plans.

10.26.02 Measurement and Payment

Payment will be made for (**Bid Item 35)** on a square foot basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in fabrication and installation of the sidewalk as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.27 Install Detectable Warning Material (Bid Item 36)

10.27.01 General

Two 3 foot x 8 foot pre-cast detectable warning material panels shall be installed at the trailhead at the beginning of the trail and at the sidewalk connection in item Section 10.26. The detectable warning materials shall Armor-tile pre-cast or equal as approved by the Engineer.

10.27.02 Measurement and Payment

Payment will be made for (**Bid Item 36)** on a unit price and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in fabrication and installation of the Detectable Warning Material as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.28 90-day Landscape Maintenance Period (Bid Item 37)

10.28.01 General

The Maintenance period shall not start until all elements of construction and planting for the entire project are complete. Project will not be segmented into maintenance phases, unless specifically authorized in writing by the Owner's authorized representative.

Plant maintenance period consists of caring for the plants installed as part of the project, including:

1. Maintenance of anti-browse cages.
2. Controlling weeds

3. Replacing damaged plants
4. Hand watering
5. Removing anti-browse cages and stakes at the end of the landscape maintenance period

At the end of the one-year plant establishment period, 100% of the plants should be surviving with good health and vigor.

10.28.02 Quality Assurance

At the conclusion of the planting establishment period, schedule a final review for Final Written Acceptance/Turn Over Acceptance. The conference shall include the Engineer and Town representative. Any discrepancies shall be noted at that time and the Contractor shall make appropriate corrections before the Final Written Acceptance of the work and the beginning of Guarantee Period is established.

Final Written Acceptance/Turn Over Inspection: A conference including the Engineer shall be held at the completion of all project improvements and all corrective work. The Contractor shall continue to maintain the project at his own expense until all deficiencies have been corrected.

Once completed, the Contractor shall request the Engineer to visit the site and approve the project as complete. The Engineer will accept the landscape project in writing. The date of the Final Written Acceptance letter shall be the first day of the guarantee period.

Prior to either review, weed and rake all planted areas, repair plant basins, mow and edge turf, plumb tree stakes, clear the site of all debris and present in a neat, orderly manner.

Submit written notice requesting review at least 5 days before the anticipated review.

10.28.03 Measurement and Payment

Payment will be made for (**Bid Item 37)** on a lump sum basis and shall include full compensation for furnishing all materials, labor, equipment, tools and for doing all work required, as specified herein, and as directed by the Engineer shall be included in items related to the landscape maintenance period, and no additional compensation shall be allowed therefore.

SECTION 11. STORM WATER POLLUTION CONTROL MEASURES

All contractors and subcontractors working on Town of Danville projects are required to comply with the pollution control measures shown in Appendix C.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various items of work involved and no additional compensation will be allowed therefore.

C. PROPOSAL SECTION

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TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Proposal to the Town of Danville

Diablo Road Pedestrian Trail and Drainage Improvement Project
Contract No. C-055

Name of Bidder _____

Business P.O. Box _____

City, State, Zip _____

Business Street Address _____
(Please include even if P.O. Box used)

City, State, Zip _____

Telephone No. Area Code ( )_____

Fax No. Area Code ( )_____

Contractor License No. _____

DIR Registration No. _____

Description of Work and Proposed Agreement

The work for which this bid is submitted is for construction in conformance with the special provisions (including the payment of not less than the State general prevailing wage rates or Federal minimum wage rates), the project plans described below, including any addenda thereto, the contract annexed hereto, and also in conformance with the standards referenced on the cover of the Contract Specifications and within the Special Provisions.

Bids are to be submitted for the entire work. The amount of the bid for comparison purposes will be the total of all items. The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose. In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item.

In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail, except as provided in (a) or (b), as follows:

(a) If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;

(b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage-wise the unit price or item total in the Town of Danville's Final Estimate of cost.

If both the unit price and the item total are unreadable or otherwise unclear, or are omitted, the bid may be deemed irregular. Likewise, if the item total for a lump sum item is unreadable or otherwise unclear, or is omitted, the bid may be deemed irregular unless the project being bid has only a single item and a clear, readable total bid is provided.

Symbols such as commas and dollar signs will be ignored and have no mathematical significance in establishing any unit price or item total or lump sums. Written unit prices, item totals and lump sums will be interpreted according to the number of digits and, if applicable, decimal placement. Cents symbols also have no significance in establishing any unit price or item total since all figures are assumed to be expressed in dollars and/or decimal fractions of a dollar. Bids on lump sum items shall be item totals only; if any unit price for a lump sum item is included in a bid and it differs from the item total, the items total shall prevail.

The foregoing provisions for the resolution of specific irregularities cannot be so comprehensive as to cover every omission, inconsistency, error or other irregularity which may occur in a bid. Any situation not specifically provided for will be determined in the discretion of the Town of Danville, and that discretion will be exercised in the manner deemed by the Town of Danville to best protect the public interest in the prompt and economical completion of the work. The decision of the Town of Danville respecting the amount of a bid, or the existence or treatment of an irregularity in a bid, shall be final.

If this bid shall be accepted and the undersigned shall fail to enter into the contract and furnish the two bonds in the sums required by the State Contract Act, with surety satisfactory to the Town of Danville, within eight days, not including Saturdays, Sundays and legal holidays, after the bidder has received notice from the Town of Danville that the contract has been awarded, the Town of Danville may, at its option, determine that the bidder has abandoned the contract, and thereupon this bid and the acceptance thereof shall be null and void and the forfeiture of the security accompanying this bid shall operate and the same shall be the property of the Town of Danville.

The undersigned, as bidder, declares that the only persons or parties interested in this bid as principals are those named herein; that this bid is made without collusion with any other person, firm, or corporation; that he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and he proposes, and agrees if this bid is accepted, that he will contract with the Town of Danville, in the form of the copy of the contract annexed hereto, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefor the following prices, to wit:

Bid Item	Spec section	Item Description	Estimated Quantity	Unit of Measure	Unit Price	Item Total
1	10.1	Mobilization	1	LS		
2	10.2	Storm Water Pollution Prevention Plan	1	LS		
3	10.3	Temporary Traffic Control	1	LS		
4	10.4	Solid Waste Disposal and Recycling Report	1	LS		
5	10.5	Critical Path Method Schedule in addition to a Three-Week Project Look Ahead submitted bi-weekly	1	LS		
6	10.6	Clearing and Grubbing and Demolition	1	LS		
7a	10.7	Tree Removal	12	EA		
7b	10.7	Tree Trimming and Root removal	1	LS		
8	10.8	Silt Fence and Biological Exclusion Fence	1500	LF		
9a	10.9	Cattle Exclusion Fence and Gate	5100	LF		
9b	10.9	Gates (EBRPD Std. Plan 211A and 217)	1	LS		
10	10.10	Earthwork (Remove)	1	LS		
11	10.10	Earthwork (Remove and Replace)	1	LS		
12a	10.11	24” x 24” Drain Inlets	6	EA		
12b	10.11	Cast in Place ‘J’ inlets	2	EA		
13	10.11	18-inch Diameter Reinforced Concrete Pipe	486	LF		
14	10.11	18-inch Corrugated Metal Pipe	95	LF		
15	10.11	Concrete V-Ditch	1530	LF		
16	10.12	Bioretention Areas	3450	SF		
17	10.13	Mechanically Stabilized Earth Wall	90	LF		
18	10.14	Soldier Pile Wall with Concrete Lagging	405	LF		
19	10.14	Debris Wall with Timber Lagging	1060	LF		
20	10.15	Thrie Beam Railing System and End Treatment	940	LF		
21	10.16	200-lb Outfall Riprap	10	Tons		
22	10.17	Remove Concrete Debris	1	LS		
23	10.17	Plug Existing Culverts and provide subdrains	1	LS		
24a	10.18	3-inch Hot Mix Asphalt	700	Tons		
24b	10.18	Aggregate Base	1540	CY		
25a	10.18	Glassgrid in HMA pavement	4120	SY		
25b	10.18	Geogrid under Aggregate Base Material	4120	SY		
26a	10.19	5-gallon Hardwood Trees and Cages	25	EA		
26b	10.19	1- gallon Hardwood Trees and Cages	105	EA		
26c	10.19	1- gallon Shrubs with Cages	105	EA		
26d	10.19	Temporary Gravity Irrigation System	1	LS		
27	10.19	Willow and Cottonwood Stakes	260	EA		
28	10.20	Erosion Control Fabric	100	SY		
29	10.20	Erosion Control Seed Mix	1000	SF		
30	10.21	Trash Capture Catch Basin Inlet	2	EA		

31	10.22	ADA Compliant Drinking Fountain	1	EA		
32	10.23	Interpretive Signage (2 signs)	1	LS		
33	10.24	Trailhead and Caution Signs (5 signs)	1	LS		
34	10.25	ADA Compliant Railing	500	LF		
35	10.26	Sidewalk	205	SF		
36	10.27	3’ x 8’ Precast Detectable Surface	2	EA		
37	10.28	90-day Landscape Maintenance Period	1	LS		

TOTAL BID: $_____

NOTE: The contract, if it is to be awarded, will be awarded to the bidder submitting the lowest responsible "Total Bid". The Town reserves the right to reject any and all bids.

The quantities given in the Notice to Contractors, Proposal, and Contract forms are approximate only, being given as a basis for the comparison of Proposals, and the Town does not, expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any item or portion of the work, or to omit portions of the work, as may be deemed necessary or advisable by the Engineer. No allowance will be made for anticipated profit on work that is deleted or decreased.

Subcontractor List

The Bidder shall list the name and address of each subcontractor to whom the Bidder proposes to subcontract portions of the work in an amount in excess of one-half of one percent of the total bid or $10,000, whichever is greater, in accordance with the Subletting and Subcontracting Fair Practices Act, commencing with Section 4100 of the Public Contract Code, and as required by the provisions in Section 2.1.01, "General," of the Special Provisions. In accordance with California Public Contract Code Section 4104, State contractor licenses shall be listed for all subcontractors.

Note: Replace the second paragraph of Section 2-1.33A "General" of the Standard Specifications with the following: "On the Subcontractor List you may either submit the bid item numbers, and the percentage of each item subcontracted with your bid or email the information to engineering@danville.ca.gov".

Subcontractor Business Name	**Subcontractor Business Name**
Email address:	**Email address:**
Street Address	**Street Address**
City / **County**	**City** / **County**
State / **Zip**	**State** / **Zip**
Description of Work to be Subcontracted	**Description of Work to be Subcontracted**
California State Contractor License No(s).	**California State Contractor License No(s).**
DIR Registration No.	**DIR Registration No.**
Bid Item No(s). (See Note Above) / **Percentage (See Note Above)**	**Bid Item No(s). (See Note Above)** / **Percentage (See Note Above)**
Subcontractor Business Name	**Subcontractor Business Name**
Email address:	**Email address:**
Street Address	**Street Address**
City / **County**	**City** / **County**
State / **Zip**	**State** / **Zip**
Description of Work to be Subcontracted	**Description of Work to be Subcontracted**
California State Contractor License No(s).	**California State Contractor License No(s).**
DIR Registration No.	**DIR Registration No.**
Bid Item No(s). (See Note Above) / **Percentage (See Note Above)**	**Bid Item No(s). (See Note Above)** / **Percentage (See Note Above)**

(Attach additional sheets if needed)

THE BIDDER'S EXECUTION ON THE SIGNATURE PORTION OF THIS BID SHALL ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE CERTIFICATIONS WHICH ARE A PART OF THIS BID)

Public Contract Code Section 10285.1 Statement

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder

☐ has

☐ has not

(Check one box above)

been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any State or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The bidder must place a check mark after "has" or "has not" in one of the boxes provided. The above Statement is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code Section 10162 Questionnaire

In conformance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

☐ yes

☐ no

(Check one box above)

If the answer is “yes”, attach a separate sheet explaining the circumstances

Public Contract Code Section 10232 Statement

In conformance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Statement and Questionnaire. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Non-Collusion Affidavit

(Title 23 United States Code Section 112 and Public Contract Code Section 7106)

In conformance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Any person executing this Affidavit on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this Affidavit on behalf of the bidder.

Note: The above Non-Collusion Affidavit is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Non-Collusion Affidavit. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Debarment and Suspension Certification

Title 49, Code of Federal Regulations, Part 29

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years;
- does not have a proposed debarment pending; and
- has not been indicted, convicted, or had a civil judgement rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Certification. The Town may confirm the Contractor's Debarment and Suspension Status using the General Services Administration's Excluded Parties List System (EPLS) available at:

https://www.sam.gov/portal/public/SAM

Public Works Contractor Registration Certification

Pursuant to Labor Code Sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See http://www.dir.ca.gov/Public-Works/PublicWorks.html or http://www.dir.ca.gov/Public-Works/Public_Works_Notices.html for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code Sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.

Name of Bidder: _____

DIR Registration Number: _____

Bidder further acknowledges:

1. Bidder shall maintain a current DIR registration for the duration of the project.

2. Bidder shall include the requirements of Labor Code Sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.

3. If awarded the contract, contractors and subcontractors must submit certified payroll records to the Labor Commissioner using the DIR's electronic certified payroll reporting (eCPR) system.

4. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Signature: _____

Name and Title: _____

Dated: _____

Accompanying this Bid is _____

(NOTE: INSERT THE WORDS "CASH ($ _____)," "CASHIER'S CHECK," "CERTIFIED CHECK," OR "BIDDER'S BOND," AS THE CASE MAY BE.)

in amount equal to at least ten percent (10%) of the total of the bid.

The names of all persons interested in the foregoing bid as principals are as follows:

IMPORTANT NOTICE

If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a copartnership, state true name of firm, also names of all individual co-partners composing firm; if bidder or other interested person is an individual, state first and last names in full.

_____

_____

_____

_____

Licensed in conformance with an act providing for the registration of Contractors,

License No. _____ Classification(s) _____

Addenda - This Bid is submitted with respect to the changes to the contract included in addenda number(s)_____

(*Fill in addenda numbers if addenda have been received and insert, in this Bid, any Engineer's Estimate sheets that were received as part of the addenda*.)

Signature Page

By my signature on this bid I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire and statements of Public Contract Code Sections 10162, 10232 and 10285.1 are true and correct and that the bidder has complied with the requirements of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code). By my signature on this Bid I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that the Non-collusion Affidavit required by Title 23 United States Code, Section 112 and Public Contract Code Section 7106; and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

Date:_____

Sign

Here

_____

_____

_____

Signature and Title of Bidder

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Bidder's Bond

We, _____ as Principal,

and _____
as Surety are bound unto the Town of Danville, State of California, hereafter referred to as "Obligee", in the penal sum of ten percent (10%) of the total amount of the bid of the Principal submitted to the Obligee for the work described below, for the payment of which sum we bind ourselves, jointly and severally,

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, the Principal is submitted to the Obligee, for _____

_____
(Copy here the exact description of work, including location as it appears on the proposal)

_____

for which bids are to be opened at _____ on _____
(Insert place where bids will be opened) *(Insert date of bid opening)*

NOW, THEREFORE, if the Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed form, in conformance with the bid, and files two bonds with the Obligee, one to guarantee faithful performance of the contract and the other to guarantee payment for labor and materials as provided by law, then this obligation shall be null and void; otherwise, it shall remain in full force.

In the event suit is brought upon this bond by the Obligee and judgement is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

Dated: _____ , 20 ___ .

_____

_____

_____
Principal

_____
Surety

By _____
Attorney-in-fact

ACKNOWLEDGEMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of _____)

On _____ before me, _____
(Insert Name and Title of the Officer)

personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

D. CONTRACT SECTION

(All of the following documents to be submitted by the successful bidder after the project is awarded.)

	Page
Contract (Sample Form)	C-1
Performance Bond (Sample Form)	C-5
Payment Bond (Sample Form)	C-7
Escrow Agreement for Security Deposits in Lieu of Retention (Sample Form to be used if requested by Contractor)	C-9
Instructions for Completing DIR-PWC 100 Form	C-12
Extract of Public Works Contract Award (DIR-PWC 100 Form)	C-13

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Contract

Construction Agreement

TOWN OF DANVILLE

1) SPECIAL TERMS. These special terms are incorporated below by reference.

Parties:	Town of Danville
Contractor:	_____
	_____
	_____
Project:	_____
Contract No.:	_____
Completion Time:	As defined in Section 4.1.01(A) of these Special Provisions.
Liquidated Damages:	As defined in Section 4.1.01(B) of these Special Provisions.
Contract Price:	$_____ more or less, in accordance with finished quantities at unit bid price.

2) SIGNATURE & ACKNOWLEDGEMENT.

Town of Danville, by: _____
Town Manager

Effective Date: _____

Attest: _____
City Clerk

Contractor, by: _____
(DESIGNATED OFFICIAL CAPACITY IN THE BUSINESS)

Contractor, by: _____
(2nd SIGNATURE FOR CORPORATIONS PER CORPORATION CODE SECTION 313)

Date: _____

Note to Contractor: (1) Execute acknowledgement form below, and (CORPORATE SEAL)
(2) If a corporation, affix Corporate Seal

ACKNOWLEDGEMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of _____)

On _____ before me, _____
(Insert Name and Title of the Officer)

personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

3) WORK CONTRACT. The contract for this project shall consist of: this Agreement and the special terms contained herein; the project plans, drawings and specifications including but not limited to the Notice to Contractors; the Contract Specifications, including the Special Provisions contained therein; Contractors Bid Proposal; all bonds, affidavits and insurance certificates; and any Change Orders approved by the Town as provided for in the Contract Specifications. All of these documents shall be integrated and are intended to cooperate with one another. Differences or conflicts between these integrated documents shall be finally determined by the Engineer.

4) TIME: NOTICE TO PROCEED. Contractor shall start work as directed in the specifications or the Notice to Proceed provided by the Town and shall complete all work within the time specified in Section 1 of this Agreement.

5) LIQUIDATED DAMAGES. Liquidated damages may be assessed as provided for in Section 4.1.01 of the Contract Specifications and in the amount provided for in Section 1 of this Agreement.

6) PAYMENTS. Payments to Contractor shall be reviewed and processed as provided for in Section 5.2 of the Contract Specifications.

7) INSURANCE. Contractor shall deliver to the Town of Danville for approval, a certificate evidencing that Contractor possesses the minimum insurance specified in Section 5.2.04 of the Contract Specifications.

8) BONDS. On signing this Contract, Contractor shall deliver to the Town of Danville for approval good and sufficient bonds with sureties in amount(s) specified in the Contract Specifications or Special Provisions and in the format provided in the Contract Specifications, guaranteeing faithful performance of this contract, payment for all labor and materials hereunder, and any needed remedies during the 12 month material guaranty period.

9) HOLD HARMLESS & INDEMNITY. Contractor agrees to hold harmless and indemnify the Town and CCTA and its officers, officials, employees, volunteers, agents and representatives as provided for in Section 5.2.05 of the Contract Specifications.

10) ASSIGNMENT. This agreement binds the heirs, successors, assigns, and representatives of the Contractor; but Contractor cannot assign it in whole or in part, nor any monies due or to become due under it, without the prior written consent of the Town of Danville and Contractor's surety or sureties, unless they have waived notice of assignment.

11) NO WAIVER BY TOWN OF DANVILLE. Inspection of the work and/or materials, or approval of work and/or materials inspected, or statement by any officer, agent of the requirements of this Contract, or acceptance of the whole or any part of said work and/or materials, or payments therefor, or any combination of these acts, shall not relieve the Contractor’s obligation to fulfill this contract as prescribed; nor shall the Town of Danville be thereby stopped from bringing any action for damages or enforcement arising from failure to comply with any of the terms and conditions hereof.

12) LITIGATION COSTS. In the event either party commences legal action to enforce this Agreement, the prevailing party shall be entitled to reasonable costs and expenses, including attorney’s fees.

13) VENUE. In the event that suit shall be brought by either party hereunder, the parties agree that trial of such action shall be held exclusively in a state court in the County of Contra Costa, Martinez, California.

14) WORKER'S COMPENSATION CERTIFICATION. Contractor is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and Contractor will comply with such provisions before commencing the performance of the work of this Contract.

15) PROVISIONS DEEMED INSERTED. Every provision of law required to be inserted in the Contract Documents is deemed to be inserted, and the Contract Documents will be construed and enforced as though such provision has been included. If it is discovered that through mistake or otherwise that any required provision was not inserted, or not correctly inserted, the Contract Documents will be amended accordingly.

16) GUARANTY. Pursuant to Standard Specifications Section 6-3.06 "Guarantee", the Contractor guarantees the construction and installation of the work included in this project.

If any of the work is defective due to faulty workmanship, materials furnished, or methods of installation, or if the work or any part of it fails to operate properly as originally intended and in accordance with the Plans and Specifications due to any of the above causes, all within 12 months after the date on which this Contract is accepted by the Town or after relief from maintenance, the Contractor agrees to reimburse the Town, upon demand, for its expenses incurred in restoring the project, including the cost of any such equipment or materials replaced and the cost of removing and replacing any other work necessary to make such replacement or repairs, or, upon demand by the Town, to replace any such material and to repair the work completely without cost to the Town so that the work will function successfully as originally contemplated.

The Town shall have the unqualified option to make any needed replacements or repairs done by the Contractor. If the Town elects to have the work performed by the Contractor, the Contractor agrees that the repairs shall be made and such materials as are necessary shall be furnished and installed within a reasonable time after the receipt of demand from the Town. If the Contractor fails or refuses to comply with his obligations under this guaranty, the Town shall be entitled to all costs and expenses, including attorney's fees.

Approved as to Form:

By _____
City Attorney

Date _____

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Performance Bond

(To Accompany Contract)

Bond No. _____

WHEREAS, the Town of Danville, acting by and through the Development Services Department, has awarded to Contractor _____, hereafter designated as the "Contractor", a contract for the work described as follows:

_____

Contract Name Contract Number

AND WHEREAS, the Contractor is required to furnish a bond in an amount equal to at least one-hundred percent (100%) of the contract price in connection with said contract, guaranteeing the faithful performance thereof:

NOW, THEREFORE, we the undersigned Contractor and Surety are held firmly bound to the Town of Danville in the sum of _____ dollars ($_____), to be paid to said Town or its certain attorney, its successors and assigns: for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors or assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That if the above bound Contractor, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the foregoing contract and any alteration thereof made as therein provided, on his or their part to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning, and shall indemnify and save harmless the Town of Danville, its officers and agents, as therein stipulated, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and virtue.

IN WITNESS WHEREOF, We have hereunto set our hands and seals on this _____ day of _____, 20__ _.

Correspondence or claims relating to this bond
Should be sent to the surety at the following
Address:

_____
_____
_____

_____
Contractor

_____
Name of Surety **(SEAL)**

_____
By: Attorney-in-Fact

NOTE: Signatures of those executing for the surety must be properly acknowledged.

ACKNOWLEDGEMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of _____)

On _____ before me, _____
(Insert Name and Title of the Officer)

personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Payment Bond

(Civil Code Section 9550)

WHEREAS, the Town of Danville, acting by and through the Development Services Department, hereafter referred to as "Obligee", has awarded to Contractor _____, hereafter designated as the "Principal", a contract for the work described as follows:

_____

Contract Name Contract Number

AND WHEREAS, said Principal is required to furnish a bond in an amount equal to at least one-hundred percent (100%) of the contract price in connection with said contract, to secure the payment of claims of laborers, mechanics, materialmen and other persons as provided by law.

NOW, THEREFORE, we the undersigned Principal and Surety are bound unto the Obligee in the sum of _____ dollars ($_____), for which payment, we bind ourselves, jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That if said Principal or its subcontractors shall fail to pay any of the persons named in Civil Code Section 9100, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by such claimant, or any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board for the wages of employees of the Principal and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, that the surety herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the surety will pay a reasonable attorney's fee to be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 9100 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

Dated: _____, 20 ____

Correspondence or claims relating to this bond
Should be sent to the surety at the following
Address:

_____
Contractor

_____ _____
Name of Surety **(SEAL)**

_____ _____
By: Attorney-in-Fact

NOTE: Signatures of those executing for the surety must be properly acknowledged.

ACKNOWLEDGEMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of _____)

On _____ before me, _____
(Insert Name and Title of the Officer)

personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Escrow Agreement for Security Deposits in Lieu of Retention

This Escrow Agreement is made and entered into by and between the Town of Danville, whose address is 500 La Gonda Way, Danville CA 94526, hereinafter called "Owner," and _____, hereinafter called “Contractor”, and
Contractor
_____, hereinafter called “Escrow Agent”.
Escrow Agent

For the consideration hereinafter set forth, the Owner, Contractor, and Escrow Agent agree as follows:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to the Construction Contract entered into between the Owner and Contractor for _____ in the amount of _____ dated _____ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the Owner shall make payments of the retention earnings directly to the Escrow Agent. When the Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner within 10 days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Owner and Contractor. Securities shall be held in the name of _____, and shall designate the Contractor as the beneficial owner.

(2) The Owner shall make progress payments to the Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) When the Owner makes payment of retentions earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until the time that the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Owner pays the Escrow Agent directly.

(4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the Owner. These expenses and payment terms shall be determined by the Owner, Contractor, and Escrow Agent.

(5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Owner.

(6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the Owner to the Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The Owner shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the owner of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Owner.

(8) Upon receipt of written notification from the Owner certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

(9) Escrow Agent shall rely on the written notifications from the Owner and the Contractor pursuant to Sections (5) to (8), inclusive, of this Agreement and the Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Owner:	On behalf of Contractor:
Title	Title
Name	Name
Signature	Signature
Address	Address
City/State/Zip Code	City/State/Zip Code

On behalf of Escrow Agent:

Title

Name

Signature

Address

City/State/Zip Code

At the time the Escrow Account is opened, the Owner and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

Owner	Contractor
Title	Title
Name	Name
Signature	Signature

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

INSTRUCTIONS FOR COMPLETING EXTRACT OF PUBLIC WORKS CONTRACT AWARD

STATE OF CALIFORNIA
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF APPRENTICESHIP STANDARDS

FORM DIR-PWC 100 (rev. 10/11)

The successful bidder shall complete the information on the following Form DIR-PWC 100 and return the form to the Town of Danville after the project has been awarded. The Notice to Proceed will not be issued until said form is satisfactorily completed and submitted. The contractor is responsible for disclosing the following information on the form:

Box 1	Name of General Contractor
Box 2	Contractor's License No.
Box 3	Mailing Address (Street Number or P.O. Box)
Box 4	City
Box 5	Zip Code
Box 6	Telephone Number
Box 7	General Contractor's Contact Email Address
Box 23	Classification or Type of Worker (carpenter, plumber, etc.) that will be employed by the Contractor(s)
Page 2	Listing of Sub-Contractors

Boxes not noted above will be completed by the Town of Danville. The completed form will be forwarded to the California Department of Industrial Relations, in conformance with California Labor Code §1776 and §1777.5. For more information about this requirement, refer to Caltrans Standard Specification Sections 7-1.02K(3) "Certified Payroll Records (Labor Code §1776)" and 7-1.02K(4) "Apprentices" respectively.

STATE OF CALIFORNIA – DEPARTMENT OF INDUSTRIAL RELATIONS

TO: California Department of Industrial Relations
Division of Apprenticeship Standards
P.O. Box 420603
San Francisco, CA 94142

FROM:

AWARDING AGENCY ID NUMBER

If you do not have an ID number please contact DAS

EXTRACT OF PUBLIC WORKS CONTRACT AWARD

A CONTRACT TO PERFORM PUBLIC WORKS UNDER LABOR CODE SECTION 1777.5 HAS BEEN AWARDED TO:

1. NAME OF GENERAL CONTRACTOR			2. CONTRACTOR'S LICENSE NO
3. MAILING ADDRESS (STREET NUMBER OR P.O. BOX)		4. CITY	
		5. ZIP CODE	6. TELEPHONE NUMBER
7. GENERAL CONTRACTOR'S CONTACT EMAIL ADDRESS		8. ADDRESS/LOCATION OF PUBLIC WORKS SITE (INCLUDE CITY AND COUNTY): 8a. County	
9. . NAME OF PROJECT			
10. CONTRACT NUMBER	11. PROJECT NUMBER	12. DOLLAR AMOUNT OF CONTRACT AWARD	
13 . FIRST ADVERTISED BID DATE MONTH DAY YEAR	14 CONTRACT AWARD DATE MONTH DAY YEAR	12a ESTIMATED TOTAL PROJECT COSTS, IF DIFFERENT FROM ITEM 12 (see instructions).	
		15. WHICH STATUTE, IF ANY, APPLIES TO THIS PROJECT?	
16. STATE CONSTRUCTION BONDS YES NO If YES, List the Sources and Dollar Amount of Bond Proceeds: SOURCES DOLLAR AMOUNT		17. WILL YOU OPERATE A DIR-APPROVED LABOR COMPLIANCE PROGRAM (LCP) FOR THIS PROJECT? YES NO	
		18. IS THERE A PROJECT LABOR AGREEMENT (PLA) ASSOCIATED WITH THIS PROJECT? *If yes, please email a copy to cmupla@dir.ca.gov* YES NO	
19. STARTING DATE (ESTIMATED OR ACTUAL) (MM/DD/YYYY)		20. COMPLETION DATE (ESTIMATED OR ACTUAL) (MM/DD/YYYY)	
21. BRIEF DESCRIPTION OF WORK TO BE PERFORMED		22. NEW CONSTRUCTION REMODELING ALTERATION, DEMOLITION, REPAIR OR MAINTENANCE	
23. CLASSIFICATION OR TYPE OF WORKER (CARPENTER, PLUMBER, ETC.) THAT WILL BE EMPLOYED BY THE CONTRACTOR(S) Please list Sub-contractors and their worker classifications on page 2			
24. Is language included in the Contract Award to effectuate the requirements of sections 1771, 1774, 1775, 1776, 1777.5, 1813, and 1815 of the Labor Code? YES NO			
25. SIGNATURE	26. TITLE	27. DATE	
28. PRINTED OR TYPED NAME	29. E-MAIL ADDRESS	30. TELEPHONE NUMBERS	
If different from above, name, title, and contact information of person responsible for carrying out Awarding Body's LCP or CMU responsibilities.			
31. NAME	32. TITLE	33. E-MAIL ADDRESS	34. TELEPHONE NUMBER

Duplication of this form is permissible

DIR-PWC 100 (rev. 10/11) successor to the DAS 13 form

To download this form, go to: www.dir.ca.gov/DAS/DIR_PWC_100Form.pdf

Extract of Public Works Contract Award (DIR-PWC 100 Form)

EXTRACT OF PUBLIC WORKS CONTRACT AWARD (Continued)

Listing of Sub Contractors

Con. Lic. #	Contractor	Classification of workers

DIR-PWC 100 (rev. 10/11) successor to the DAS 13 form

APPENDIX A

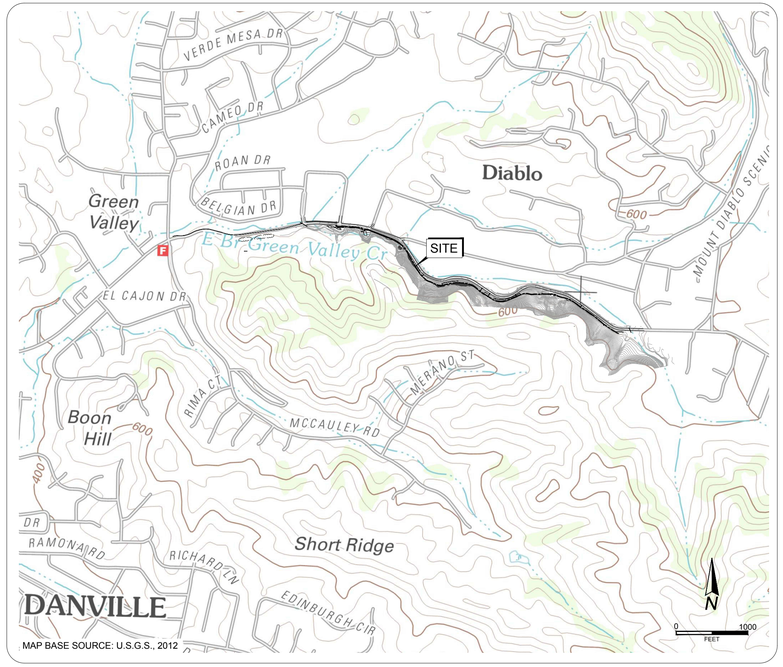
PLANS

Plans

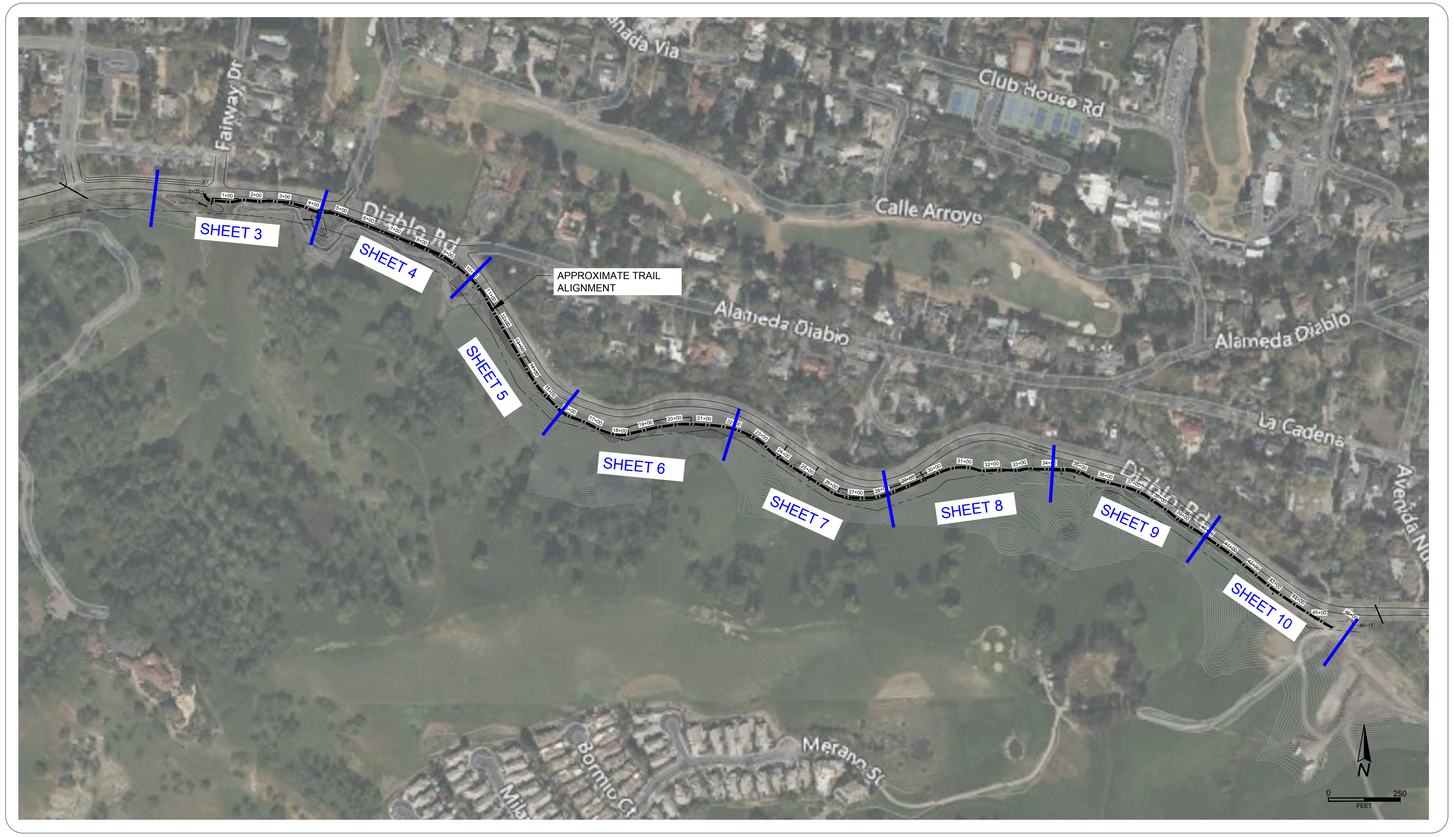
TOWN OF DANVILLE

CONTRA COSTA COUNTY, CALIFORNIA

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL



VICINITY MAP



SITE PLAN

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TOPOGRAPHIC SURVEY NOTES

1. ALL DISTANCES SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.
2. 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.
3. DIMENSIONAL TIES TO IMPROVEMENTS ARE 90° TO THE PROPERTY LINES UNLESS NOTED OTHERWISE
4. THE FIELD DATA FOR THIS SURVEY WAS COLLECTED USING A LEICA RTC 360 LASER SCANNER AND THE TRIMBLE S5 1 SECOND TOTAL STATION.
5. THE TOPOGRAPHIC POINTS AND LINE WORK SHOWN HEREON WERE MAPPED FROM THE LASER SCAN POINT CLOUD.
6. 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	2129890.58'	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.

REV.	DATE	DESCRIPTION	BY

ENGEO Expect Excellence
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CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

COVER SHEET

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 1 OF 22 SHEETS

PROJECT NO. 8870.000.011

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GENERAL NOTES:

1. ALL WORK IS TO BE DONE UNDER THE OVERSIGHT OF THE ENGINEER.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. DUST CONTROL DURING ALL PHASES OF CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
9. 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.
10. ANY DAMAGE TO THE EXISTING FACILITIES INCLUDING, TREES, AND FENCES SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE.
11. 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.
12. HAUL ROUTES SHALL BE ONLY ON STREETS AS PRE-APPROVED BY THE CITY ENGINEER.
13. TESTING AND OBSERVATION FOR THE PROJECT SHALL BE IN CONFORMANCE WITH THE TOWN OF DANVILLE QUALITY ASSURANCE PROGRAM DATED MAY 2022.
14. 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.
15. ALL ELEVATIONS SHOWN ARE FINISHED ELEVATIONS UNLESS STATED OTHERWISE.
16. CONTRACTOR SHALL LAY OUT ALL WORK, ESTABLISH ALL NECESSARY MARKERS, BENCH MARKS, GRADING STAKES, AND OTHER STAKES AS REQUIRED TO ACHIEVE DESIGN GRADES.
17. PLAN BASED ON TOPOGRAPHIC SURVEY PROVIDED BY THE TOWN, DATED DECEMBER 2, 2020 AND CHAPELL GEOMATRIX DATED APRIL, 2024 AND AUGUST, 2024.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHOULD BE PREPARED TO INDENTIFY HOW THE WORK BELOW TOP OF BANK IN GREEN VALLEY CREEK WILL BE PROTECTED IN THE EVENT OF AN UNREASONALBE STORM EVENT.
2. ALL CREEK IMPROVEMENTS SHOWN ON THESE PLANS WILL BE PROPERLY IN PLACE PRIOR TO THE RAINY SEASON.
3. NO EQUIPMENT SHALL BE OPERATED IN AREAS OF FLOWING OR STANDING WATER; NO FUELING, CLEANING OR MAINTENACE OF VEHICLES OR EQUIPMENT SHALL TAKE PLACE WITHIN ANY AREAS WHERE AN ACCIDENTAL DISCHARGE TO GREEN VALLEY CREEK MAY OCCUR; CONSTRUCTION MATERIALS AND HEAVY EQUIPMENT MUST BE STORED OUTSIDE THE CREEK BANKS; ALL EARTH MOVING WORK SHALL BE PERFORMED OUTSIDE OF AREAS OF FLOWING WATER.
4. PER THE PROJECT STREAMBED ALTERATION AGREEMENT, THE FOLLOWING CONSTRUCTION ACTIVITIES ARE RESTRICTED TO DATES INDICATED BELOW:
   A. TREE REMOVALS MUST BE PERFORMED IN CONJUCTION WITH TOWN PAID BIOLOGIST BETWEEN MARCH 1 THROUGH APRIL 15 AND SEPTEMBER 1 THROUGH OCTOBER 15.
   B. WORK IN CREEK CORRIDOR RESTRICTED FROM JUNE 15 TO OCTOBER 15.
   C. POURING OF CONCRETE IN CREEK CORRIDOR RESTRICTED FROM JUNE 15 THROUGH SEPTEMBER 15.

LEGEND:

	FOUND MONUMENT
	GUIDE CONTROL
ASPH	ASPHALT CONCRETE
CONC	CONCRETE
DWY	DRIVEWAY
	BARBED WIRE FENCE
	WOOD FENCE
	CONCRETE WALL
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
PIV	POST INDICATOR VALVE
W	WATER METER
W	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
	LIGHT
	GUY ANCHOR
	JUNCTION POLE
	POWER POLE
	TRAFFIC SIGNAL WITH ARM
	GATE POST
	GUARD POST
	SIGN
	TREE EXISTING
	TREE REMOVED IN 2025 BY THE TOWN
	TREE (E) TO BE REMOVED
	TREE PROTECTION DETAIL PER DETAIL 3 SHEET 23
S	SEWER MANHOLE
	UTILITY PULL BOX
2 / 14	DETAIL # / SHEET #
A / 17	TYPICAL SECTION / SHEET #
	2 X 2 CATCH BASIN (TYPICAL); PER DETAIL 3; SHEET 18
	3 X 3 ROCK APRON (TYPICAL); PER DETAIL 4; SHEET 18

ABBREVIATIONS

AB	AGGREGATE BASE
ACP	ASBESTOS CEMENT PIPE
AS	AGGREGATE SUBBASE
BW	BACK OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
C&G	CURB AND GUTTER
CB	CATCH BASIN
℄	CENTER LINE
CL	CLEARANCE
CMP	CORRUGATED METAL PIPE
DIA	DIAMETER
DET	DETAIL
DI	DROP INLET
DWG	DRAWING
E	ELECTRIC
EG	EXISTING GRADE
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
EX	EXISTING
EVC	END OF VERTICAL CURVE
FC	FACE OF CURB
FL	FLOW LINE
FG	FINISHED GRADE
FOW	FACE OF WALL
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 CONCRETE
PCC	PORTLAND CEMENT
PED	PEDESTRIAN ELECTRIC CO.
PG&E	PACIFIC GAS &
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
TC	TOP OF WALL
TE	TIP ELEVATION
TYP	TYPICAL
W	WATER
Δ	DELTA

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DANVILLE

REV.	DATE	DESCRIPTION	BY

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCKLEY No. 67302 CIVIL STATE OF CALIFORNIA

NOTES, LEGEND, AND ABBREVIATIONS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 2 OF 22 SHEETS

PROJECT NO. 8870.000.011

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G:\Drafting\Job\8870\001\8870000011-Diablo Rd Trail Plans\8870000011-Diablo Trail Plans 10yr-2-3325.dwg 5-14-25 08:29:37 PM Jeremy

INSTALL OLDCASTLE FLOGARD BASIN INLET FILTER OR EQUAL MODEL FF-24D 2' X 2' DI; GRATE=467.50; FL=464.50

INSTALL SIDEWALK AND CONNECT TO EXISTING TRAIL. TOWN OF DANVILLE STD DET. 105

FUTURE SIGNALIZED (HAWK) CROSSING TREATMENT (N.I.C)

DIABLO ROAD

FAIRWAY DR.

3' x' 8' DETECTABLE SURFACE SEE SPECIFICATIONS

START BIKE PATH CONFORM TO EXISTING PAVEMENT

0+00

HYDROLOGICAL MITIGATION AREA

INSTALL ENTRANCE SIGN PER EBRPD STD. DET-301; SEE CONTRACT SPECS.

460

18" RCP; L=18 LF, S=0.014

8 LF; 2' X 2' ROCK CHECK DAM; BURY 1' MIN. (TYP)

4/18 3' X 3'ROCK APRON FL=462.00

APPROXIMATE CREEK FLOWLINE

12" RCP; L=28' LF, S=0.01

3' X 3' ROCK APRON FL=464.25

4/18

DANVILLE PUBLIC R-O-W PER DOC. 2024-0036316

3/18 2' X 2' DI (TYP) GRATE=465.00 FL=462.25

LIMITS OF GRADING (TYP)

950 SF BIORETENTION AREA; FG=464.00; PER 1/18

GREEN VALLEY CREEK

CONNECT TO (E) WATER

STA: 0+84 BEGIN GUARD RAIL
INSTALL SINGLE THRIE BEAM BARRIER
END ANCHOR SYSTEM AND TERMINAL
SYSTEM END TREATMENT PER CALTRANS
STD PLAN A78E1

1+00

INSTALL ADA DRINKING FOUNTAIN PER EBPRD STD-DET 515. SUMP TO DRAIN TO BASIN

CUT PIPES AND INSTALL CONCRETE PLUG AND SUBDRAIN PER 2/17

4" SUBDRAIN

MSE WALL#1 AND HANDRAIL TYPICAL DETAIL PER 1/14

APPROXIMATE TOP OF BANK

100-YEAR WATER SURFACE ELEVATION

THRIE BEAM BARRIER SYSTEM WITH STEEL POSTS AND NOTCHED PLASTIC BLOCKS. CALTRANS STANDARD PLAN A78 B, A78 C1, AND A78 C2 - EDGE OF RAIL OFFSET 8-INCHES FROM EDGE OF PAVEMENT

STA: 1+62.14

EXISTING PGE POLE (TYP)

FOR PROFILE VIEW SEE BELOW

GRADE FRONTAGE TO DRAIN TO CATCH BASINS (TYP)

3' MIN. CLR.

EDGE OF ROAD

FOG LINE

TEMPORARILY RELOCATE TRAFFIC SIGN AS NEEDED

EXISTING PGE POWER LINE (TYP); CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING NEAR POWER LINES (21' MIN CLEARANCE).

2+00

3+00

4+00

1.0%

INSTALL OLDCASTLE CATCH BASIN INLET FILTER OR EQUAL MODEL FF-24D WITH 2' X 2' DI GRATE=473.80; FL=470.80

18" RCP; 26 LF; S=0.03

STA: 2+04.17

STA: 2+98.6

A/18

SOLDER PILE WALL #1 AND HANDRAIL PER 1/16

STA: 3+61.62

18" RCP; 26 LF; S=0.03

2' X 2' DI (TYP) GRATE=475.00 FL=471.70

4/18 3' X 3' ROCK APRON FL=470.00

4/18 3' X 3' ROCK APRON FL=466.00

2500 SF BIORETENTION AREA; FG=469.50; PER 1/18

12" RCP; L=27 LF; S=0.019

2' X 2' DI RISER GRATE=469.50 FL=466.50

APPROXIMATE LOCATION OF ADDITIONAL TOWN OF DANVILLE EASEMENT, TO BE RECORDED PRIOR TO THE START OF CONSTRUCTION

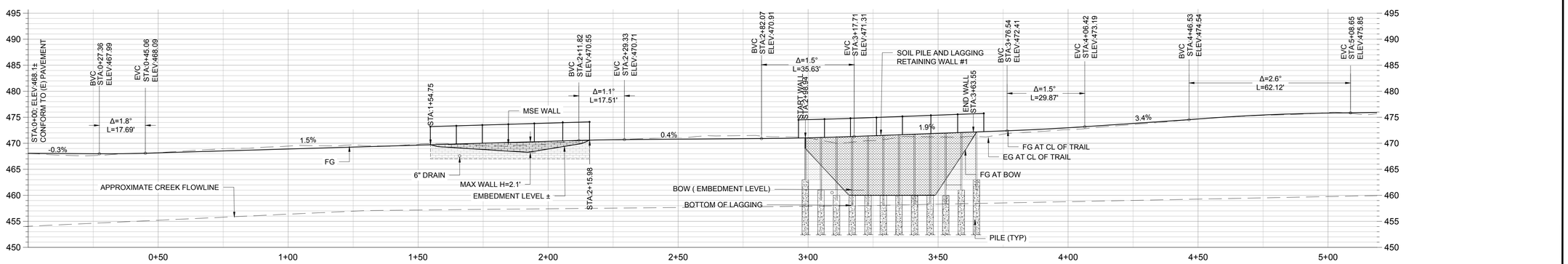
N

20 10 0 20

SCALE IN FEET

PLAN VIEW

SCALE: 1"=20'



PROFILE VIEW

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

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DANVILLE

REV.	DATE	DESCRIPTION	BY

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CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCKLEY No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 0+00 - 5+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 3 OF 22 SHEETS

PROJECT NO. 8870.000.011

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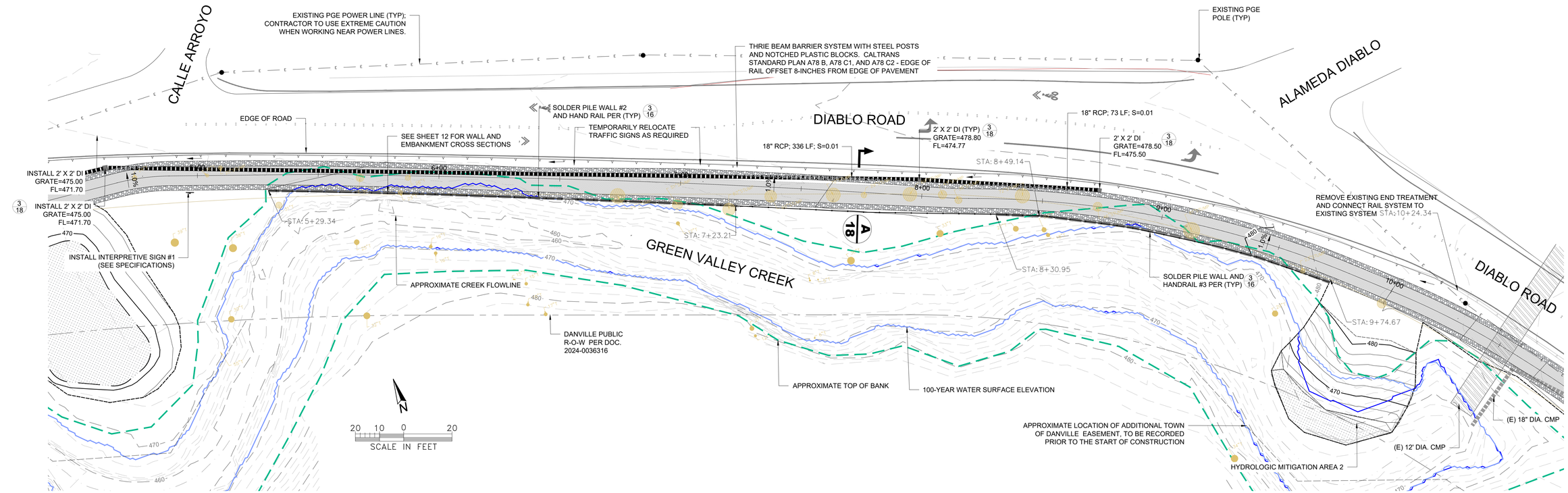
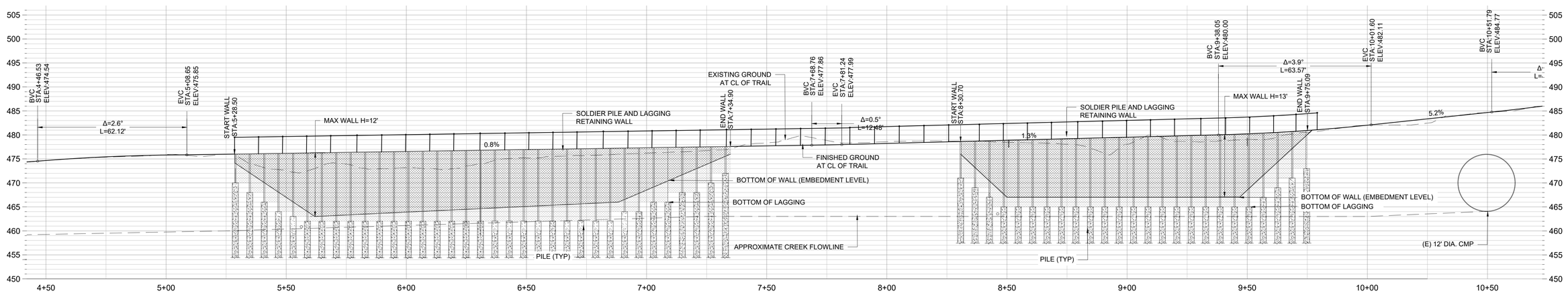


PLAN VIEW

SCALE: 1"=20'



PROFILE VIEW

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

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DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BLACK No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 5+00 - 10+50

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 4 OF 22 SHEETS

PROJECT NO. 8870.000.011

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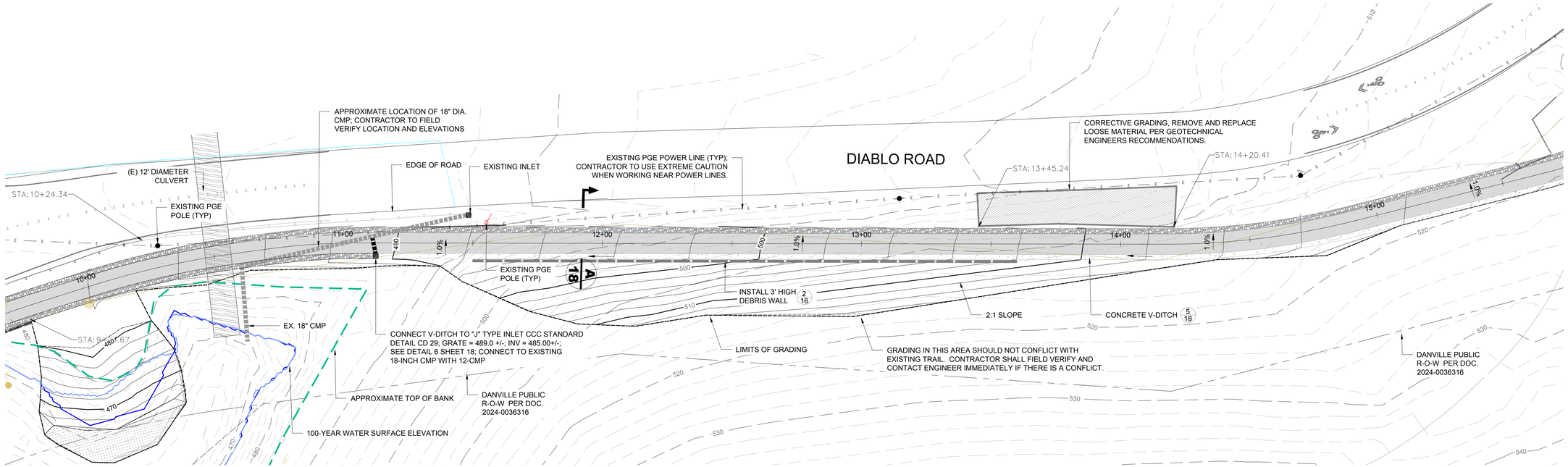
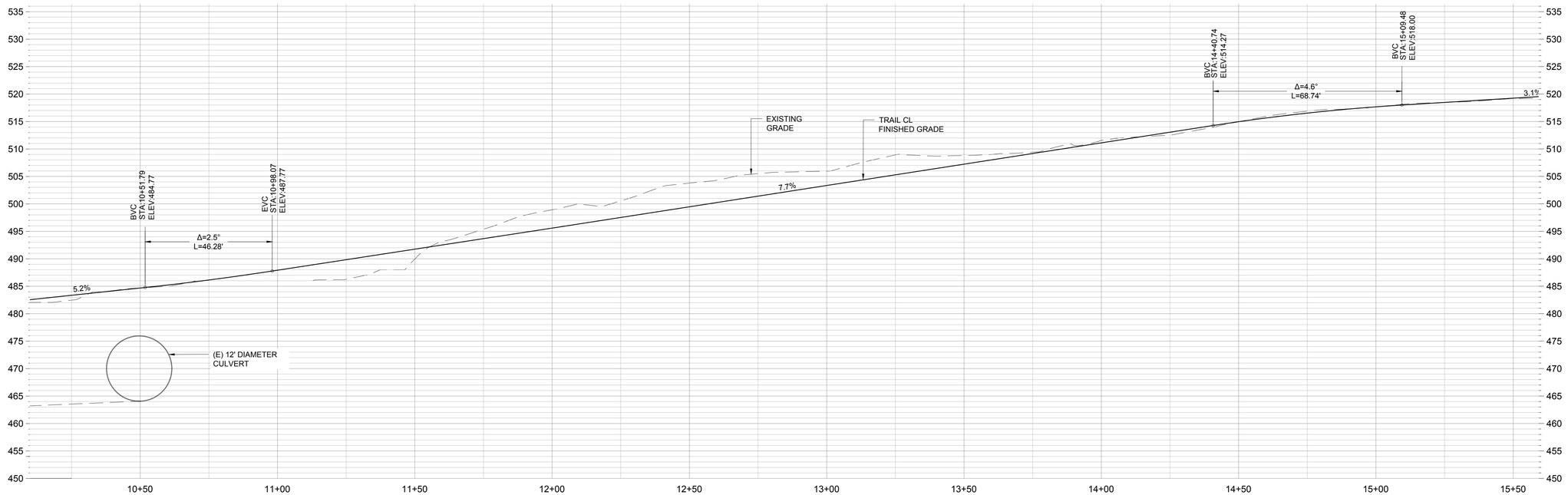


PLAN VIEW
SCALE: 1"=20'



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

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DANVILLE

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DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 10+50 - 15+50

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 5 OF 22 SHEETS

PROJECT NO. 8870.000.011

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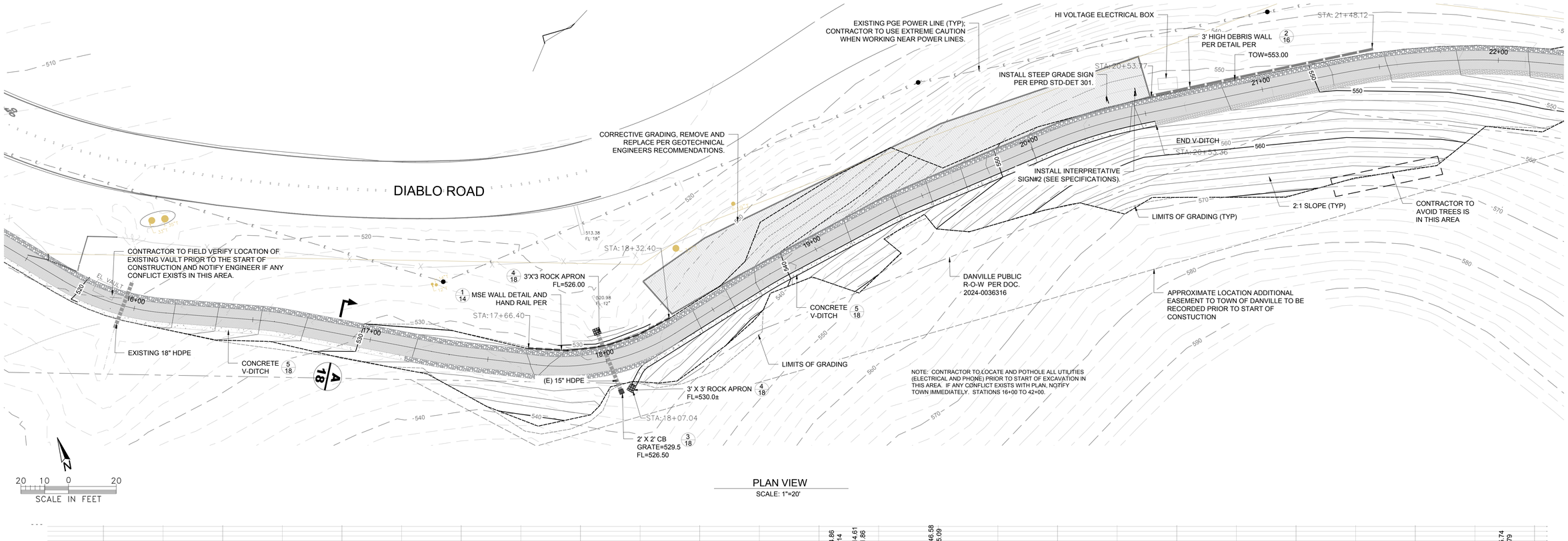
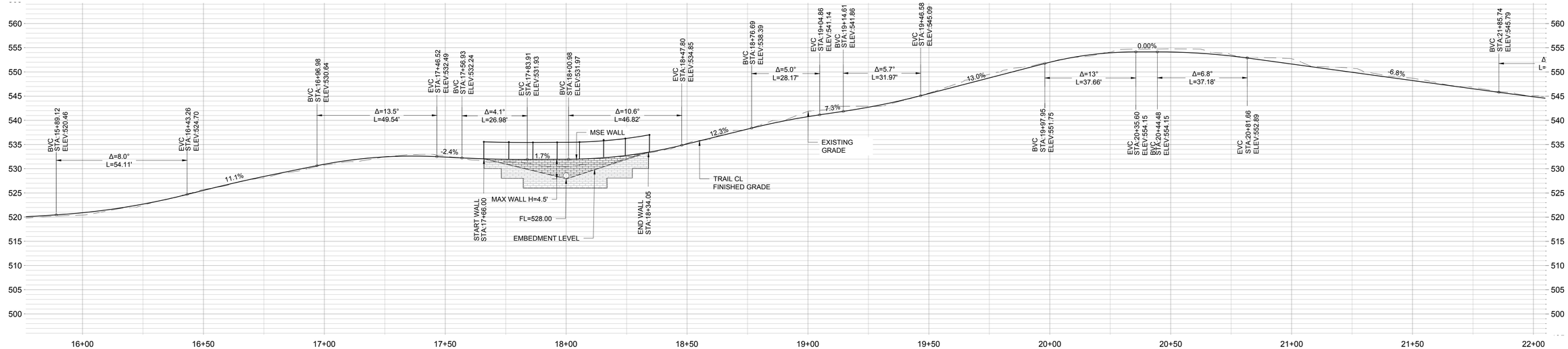


PLAN VIEW
SCALE: 1"=20'



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

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

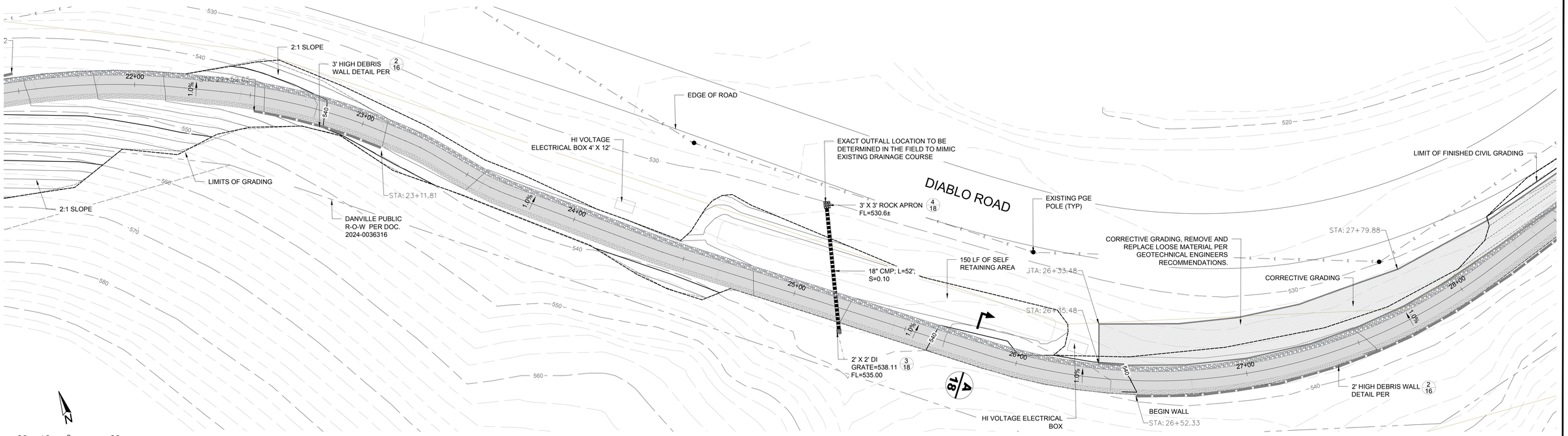
REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 15+50 - 22+00

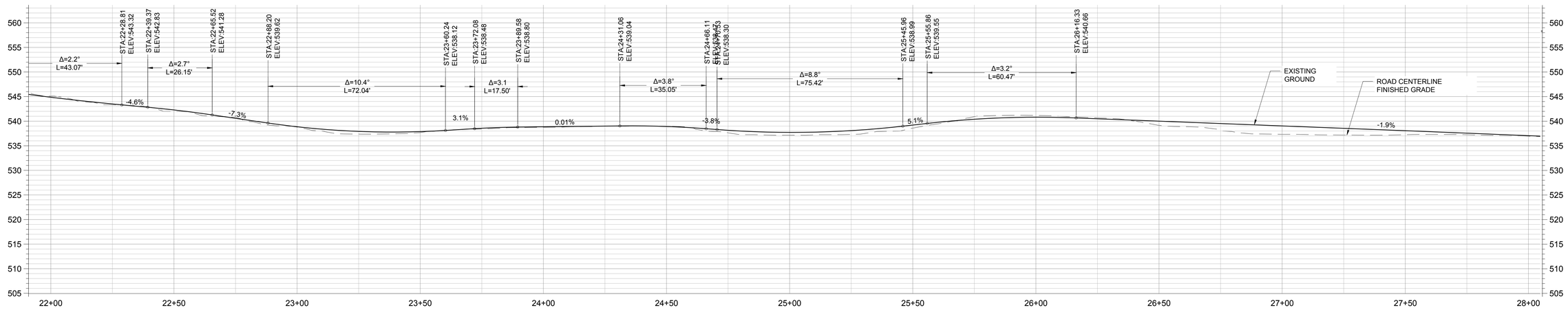
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 6 OF 22 SHEETS
PROJECT NO. 8870.000.011



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



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

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DANVILLE

REV.	DATE	DESCRIPTION	BY

ENGEO Expect Excellence
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SUITE 250
SAN RAMON, CALIFORNIA 94583-4634
(925) 866-9000
(888) 279-2698
CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BLACK No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 22+00 - 28+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 7 OF 22 SHEETS

PROJECT NO. 8870.000.011

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DIABLO ROAD

CORRECTIVE GRADING, REMOVE AND REPLACE LOOSE MATERIAL PER GEOTECHNICAL ENGINEERS RECOMMENDATIONS.

CONNECT TO (E) DI FL=525.98

EXISTING PGE POLE (TYP)

LIMIT OF FINISHED CIVIL GRADING

18" CMP; L=30 LF; S=0.22

CONNECT V-DITCH TO "J" TYPE INLET
CCC STANDARD DETAIL CD 29
GRATE = 535.70
INV = 532.70
SEE DETAIL 6, SHEET 18

3' HIGH DEBRIS WALL DETAIL PER (2/16)

CONCRETE V-DITCH (5/18)

MSE WALL DETAIL PER (1/14)

HI VOLTAGE ELECTRICAL BOX

INSTALL STEEP GRADE SIGN PER EPRD STD-DET 301.

INSTALL STEEP GRADE SIGN PER EPRD STD-DET 301.

DANVILLE PUBLIC R-O-W PER DOC. 2024-0036316

LIMITS OF GRADING

APPROXIMATE LOCATION ADDITIONAL EASEMENT TO TOWN OF DANVILLE TO BE RECORDED PRIOR TO START OF CONSTUCTION.

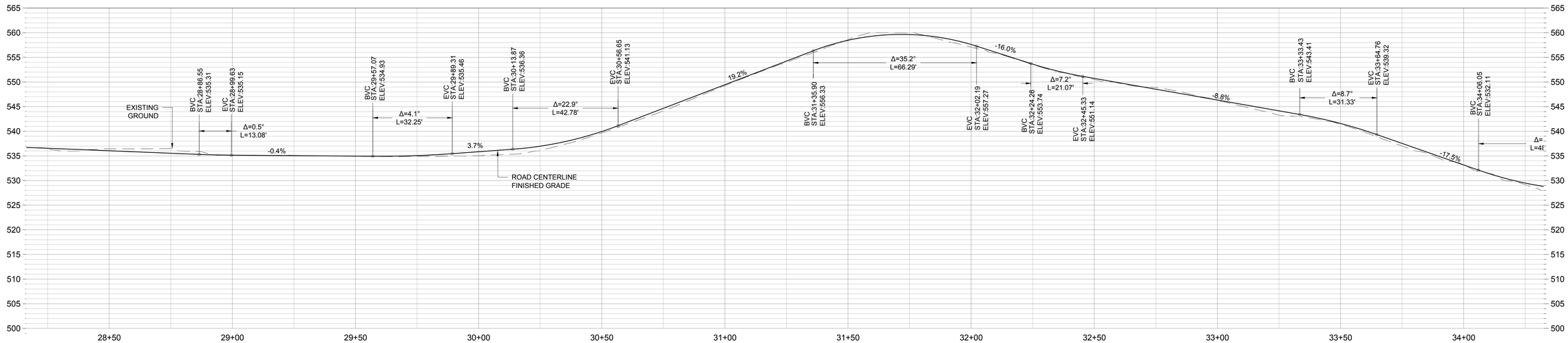
STA: 29+53.93
STA: 29+56.31
STA: 30+11.38
STA: 30+14.49
STA: 30+35.38
STA: 31+53.49
STA: 31+86.91
STA: 33+88.49
STA: 34+04.72

NOTE: CONTRACTOR TO LOCATE AND POTHOLE ALL UTILITIES (ELECTRICAL AND PHONE) PRIOR TO START OF EXCAVATION IN THIS AREA. IF ANY CONFLICT EXISTS WITH PLAN, NOTIFY TOWN IMMEDIATELY. STATIONS 16+00 TO 42+00.

N

20 10 0 20
SCALE IN FEET

PLAN VIEW
SCALE: 1"=20'



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

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 28+00 - 34+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 8 OF 22 SHEETS
PROJECT NO. 8870.000.011

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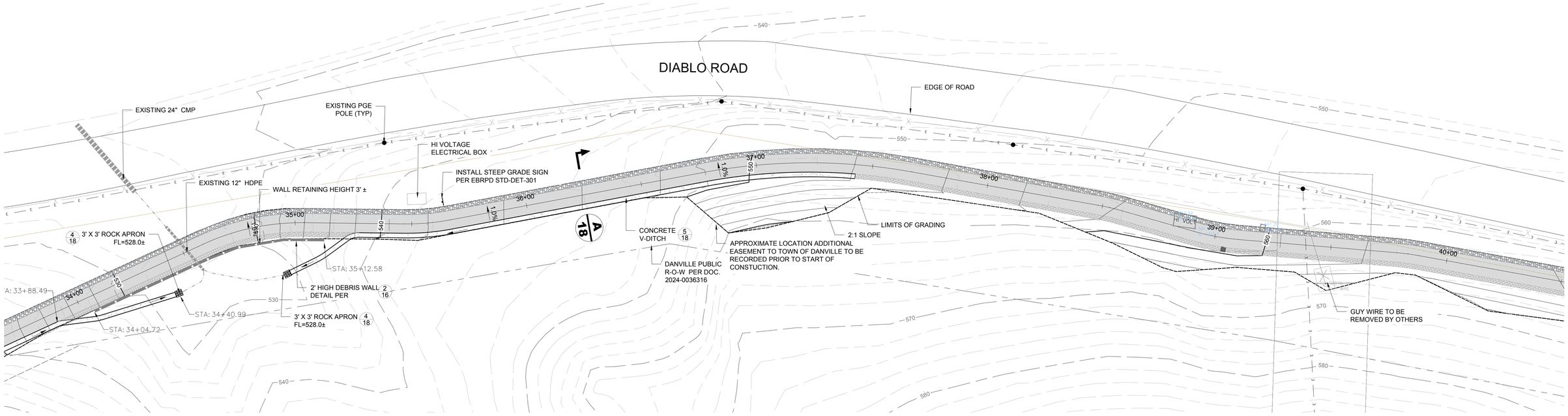
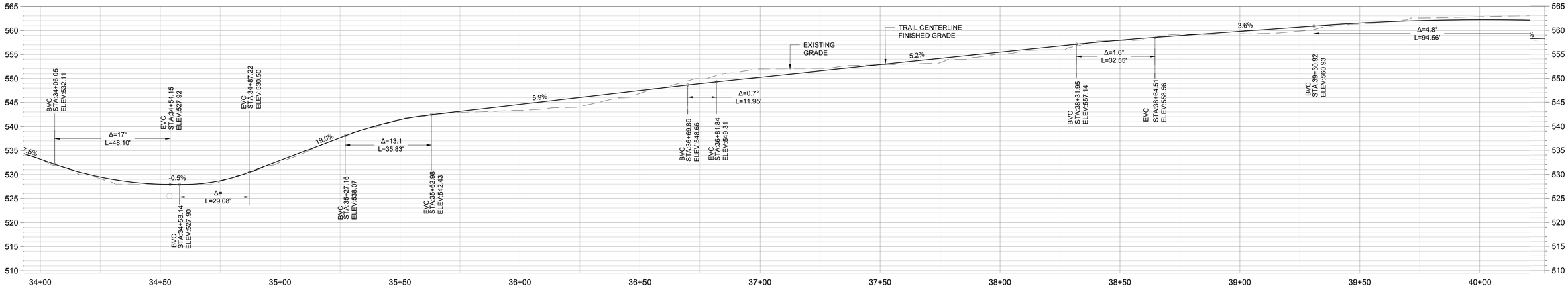
G:\Drafting\DRAFTING2_Dwg\8870\000\8870000011 Diablo Rd Trail Plans\8870000011-Diablo Trail Plans\0325\8870000011-Diablo Trail Plans PandP Fig 3-10-0325.dwg, 5/14/2025 3:53:11 PM, AutoCAD PDF (High Quality Print).pc3



PROFILE VIEW

SCALE: 1"=20'



PLAN VIEW

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

20 10 0 20

SCALE IN FEET

NOTE: CONTRACTOR TO LOCATE AND POTHOLE ALL UTILITIES (ELECTRICAL AND PHONE) PRIOR TO START OF EXCAVATION IN THIS AREA. IF ANY CONFLICT EXISTS WITH PLAN, NOTIFY TOWN IMMEDIATELY. STATIONS 16+00 TO 42+00.

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DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK NO. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 34+00 - 40+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 9 OF 22 SHEETS

PROJECT NO. 8870.000.011

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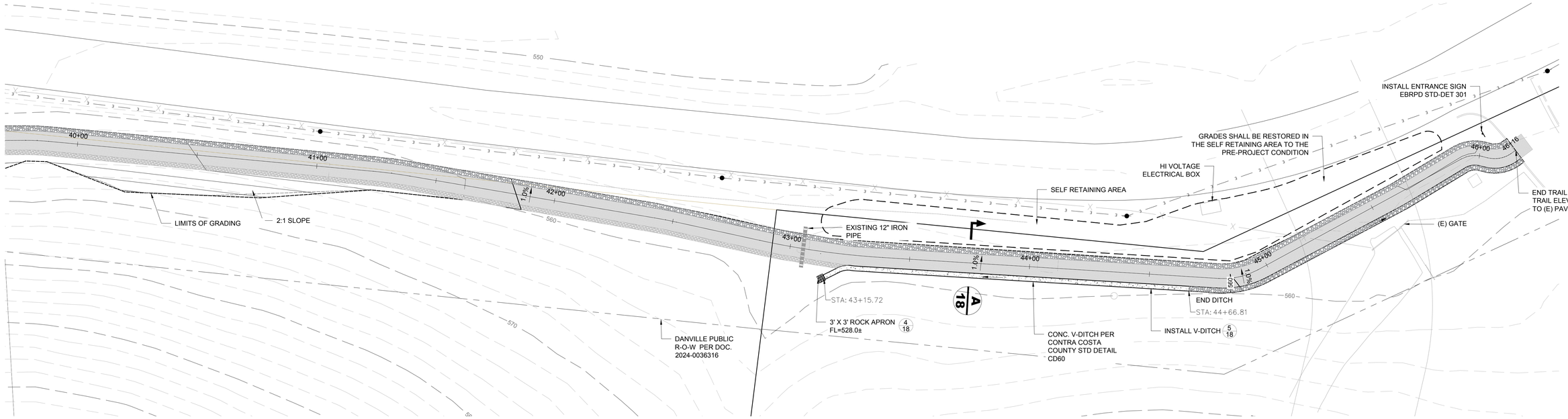
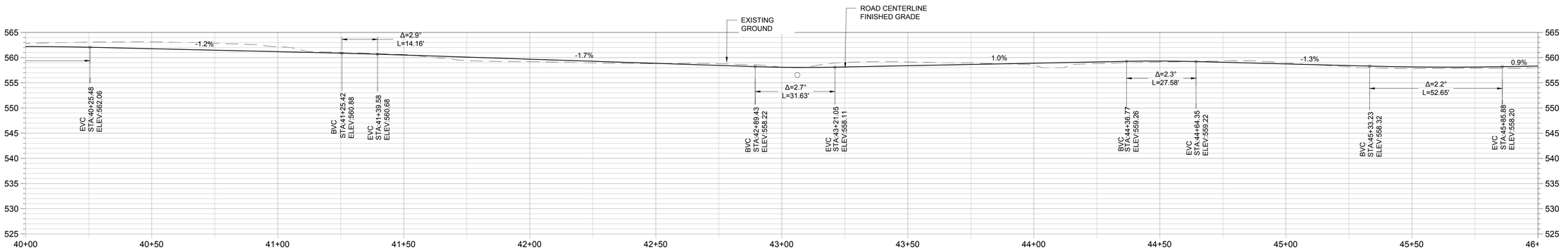


PLAN VIEW
SCALE: 1"=20'

20 10 0 20
SCALE IN FEET



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

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK NO. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 40+00 - 45+50

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 10 OF 22 SHEETS
PROJECT NO. 8870.000.011

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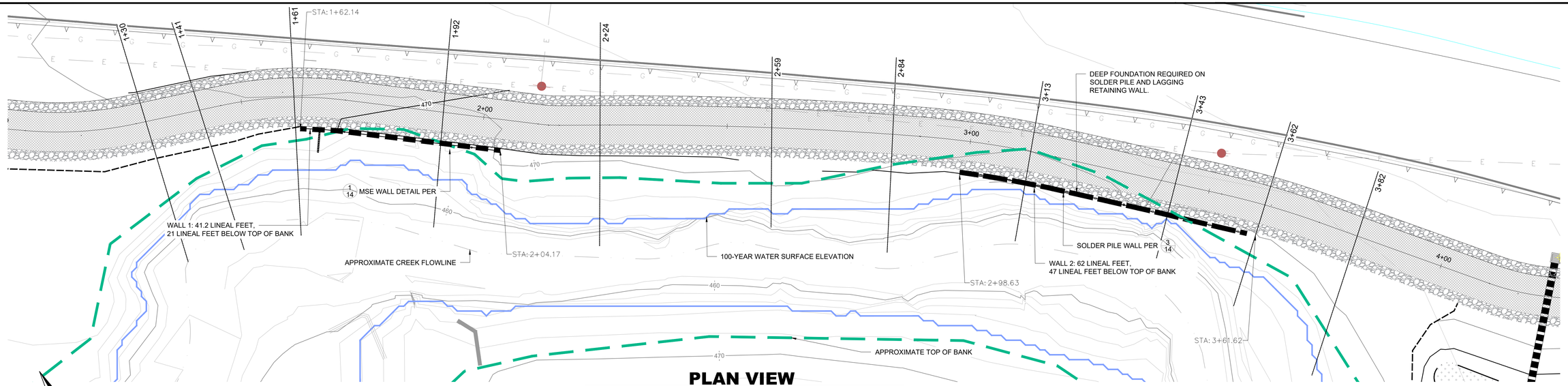
G:\Drafting\DRAFTING2_Dwg\8870\000\8870000011 Diablo Rd Trail Plans\8870000011-Diablo Trail Plans\0325\8870000011-Diablo Trail Plans PandP Fig 3-10-0325.dwg, 5/14/2025 3:54:32 PM, AutoCAD PDF (High Quality Print).pc3



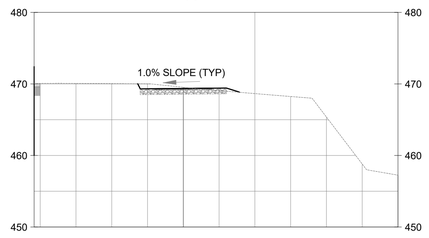
PLAN VIEW

SCALE: 1"=10'

10 5 0 10

SCALE IN FEET

1+30



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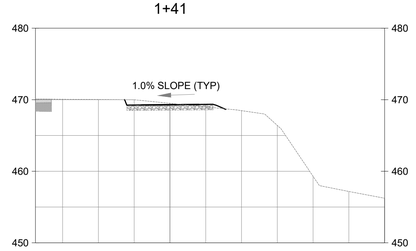

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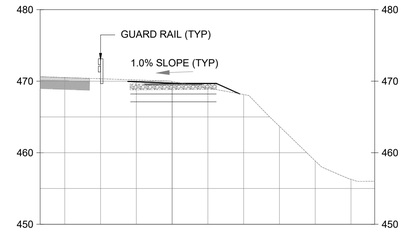

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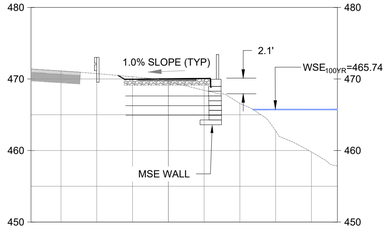

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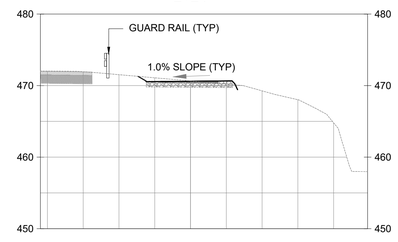

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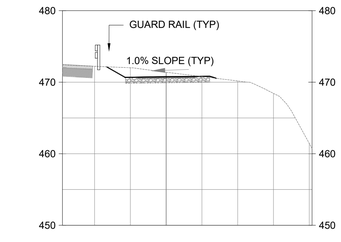

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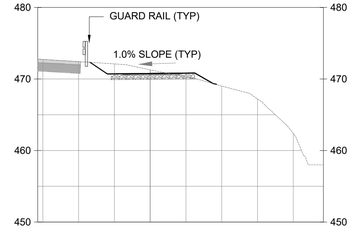

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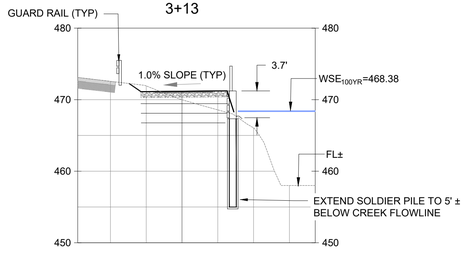

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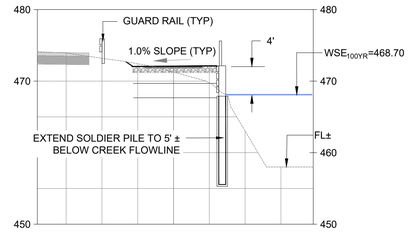

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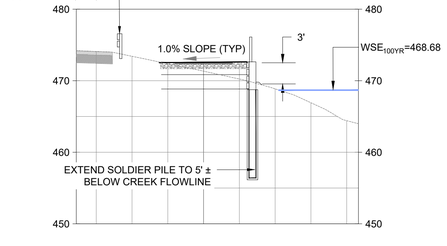

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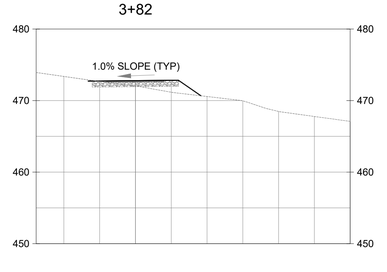

CROSS SECTIONS

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

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(888) 279-2698

DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER
JONATHAN D. BUCKLEY
No. 67302
CIVIL
STATE OF CALIFORNIA

EMBANKMENT 1 CROSS SECTIONS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 11
OF 22 SHEETS

PROJECT NO. 8870.000.011

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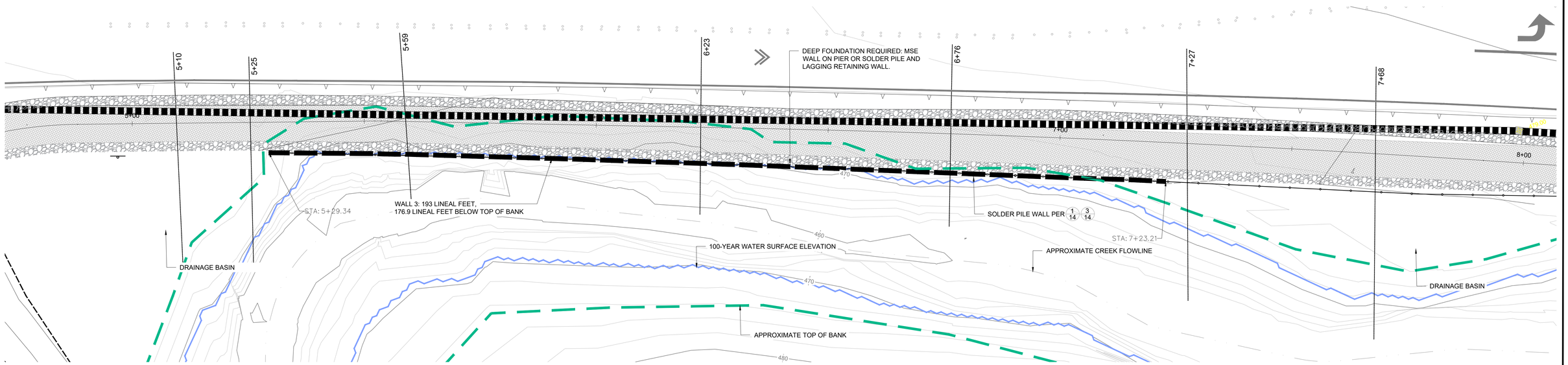

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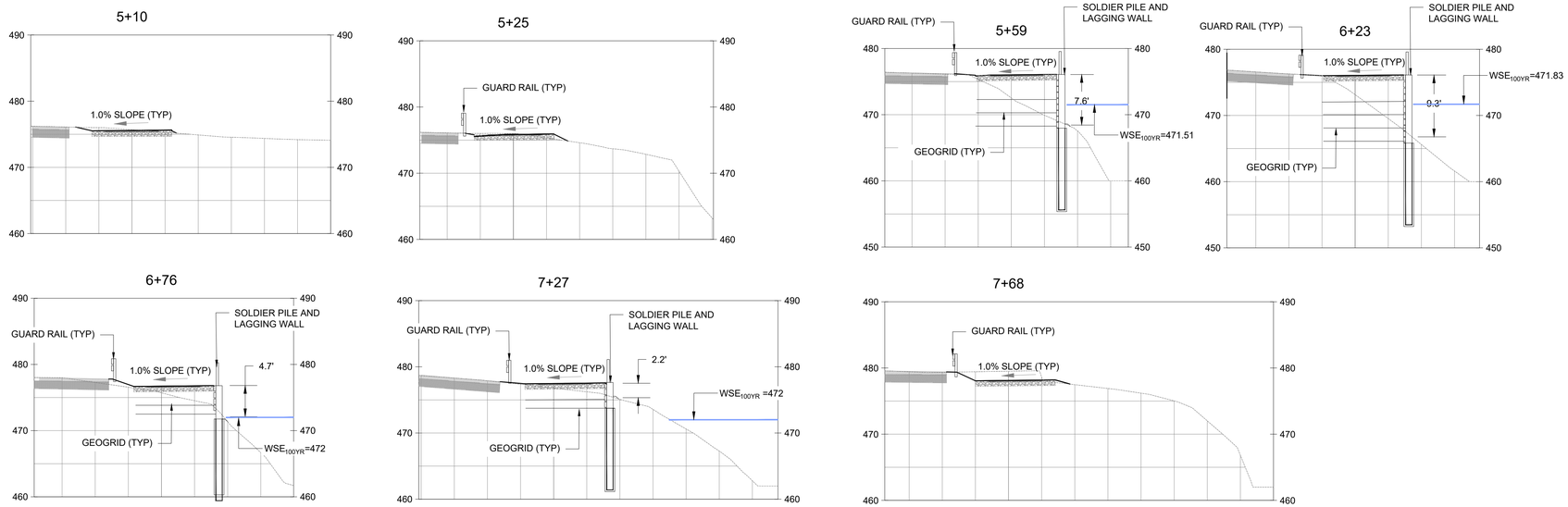
SCALE IN FEET

PLAN VIEW

SCALE: 1"=10'



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

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK NO. 67305 CIVIL STATE OF CALIFORNIA

EMBANKMENT 2 CROSS SECTIONS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 12 OF 22 SHEETS
PROJECT NO. 8870.000.011

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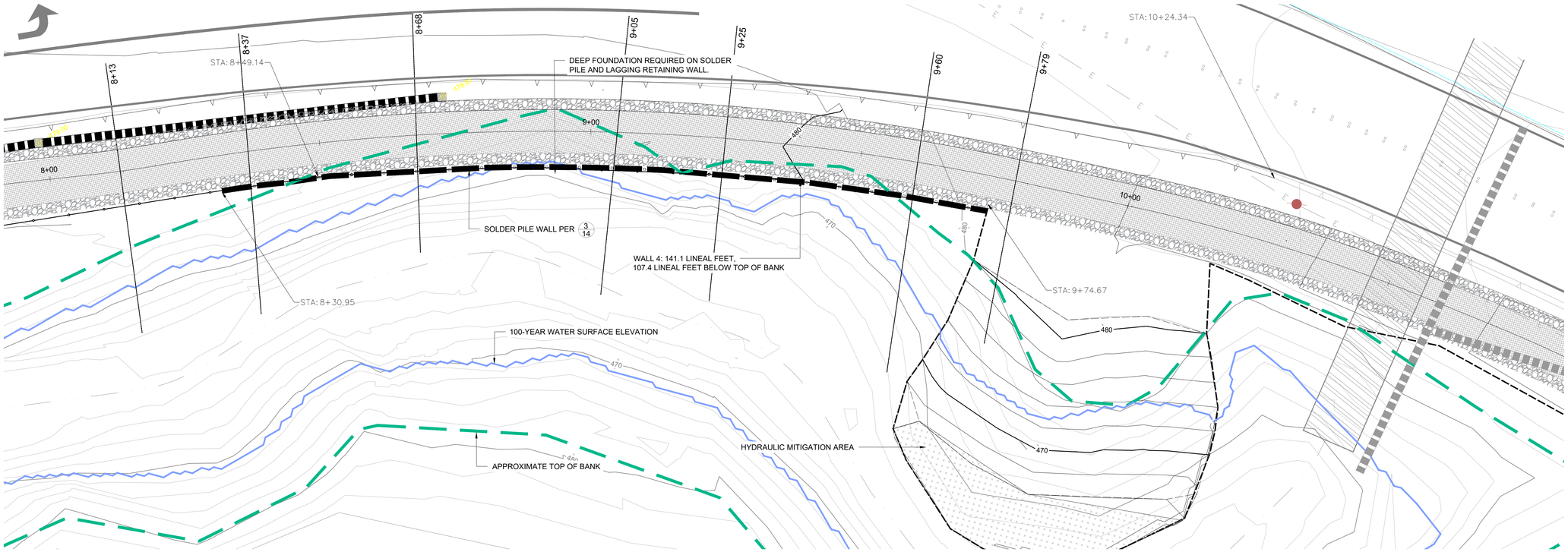

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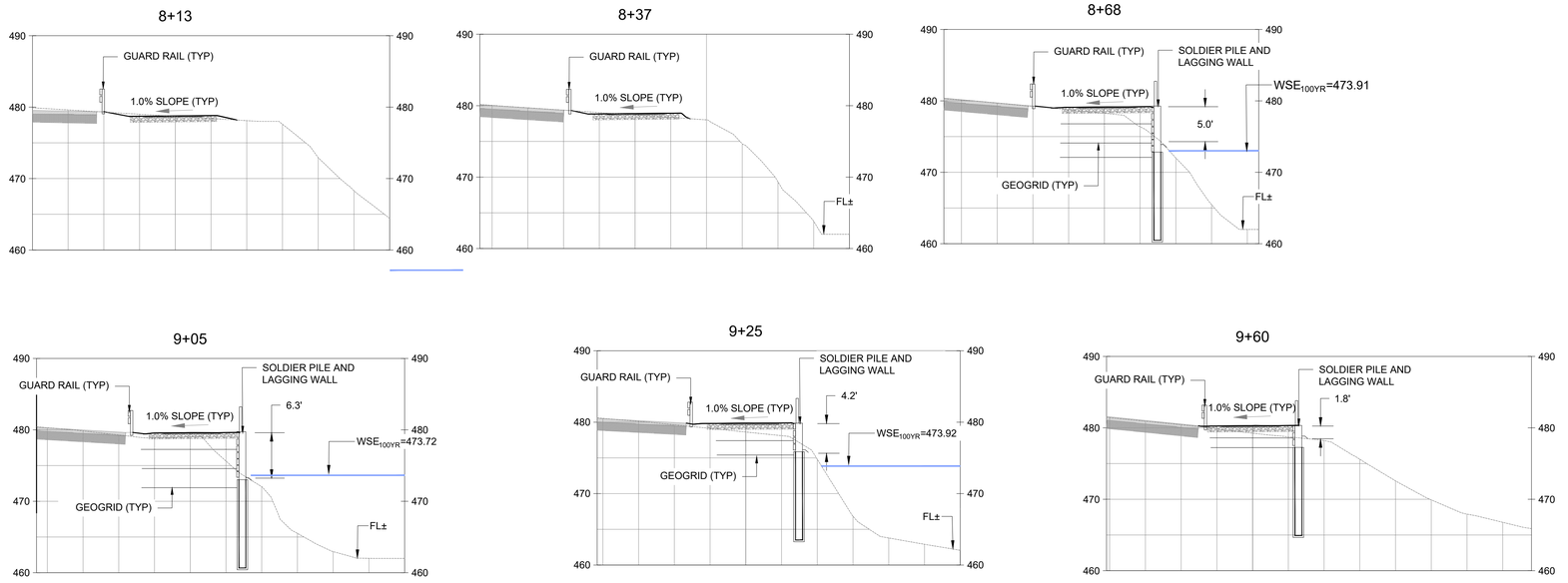
10 5 0 10

SCALE IN FEET

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 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK NO. 67302 CIVIL STATE OF CALIFORNIA

EMBANKMENT 3 CROSS SECTIONS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 13 OF 22 SHEETS

PROJECT NO. 8870.000.011

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GENERAL NOTES

1. BASIS OF DESIGN:
   - A. 2022 CALIFORNIA BUILDING CODE.
   - B. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA); DESIGN MANUAL FOR SEGMENTAL RETAINING WALL, 2012
   - C. ENGEO. 2024. IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL, DANVILLE CALIFORNIA. MARCH, 2025 PROJECT NO.8870.000.011.
   - D. ENGEO. 2024. GEOTECHNICAL DATA REPORT, DIABLO ROAD TRAIL, DANVILLE CALIFORNIA. 2025 PROJECT NO.8870.000.011.
2. SPECIAL INSPECTION / CONSTRUCTION OBSERVATION SHALL BE PERFORMED INCLUDING TESTING AND OBSERVATION OF FOUNDATION AND LEVELING PAD, MSE BLOCK PLACEMENT, GEOGRID PLACEMENT, ENGINEERED FILL APPROVAL AND PLACEMENT, AND DRAINAGE PLACEMENT.
3. MSE WALL CONSTRUCTION SHALL BE PERFORMED BY AN APPROVED MSE WALL CONTRACTOR, APPROVED BY THE ENGINEER.
4. EXCAVATION AND SHORING SHALL BE PERFORMED IN ACCORDANCE WITH OSHA, STATE, AND LOCAL JURISDICTIONAL REQUIREMENTS.
5. EARTHWORK SHALL BE IN CONFORMANCE WITH THE PROJECT GEOTECHNICAL REPORT.

MSE WALL MATERIALS

1. MASONRY WALL UNITS
   - A. ALL MODULAR WALL UNITS SHALL CONSIST OF BASALITE GEOWALL™ MAX STANDARD PINNED UNITS (18" X 8" X 21-1/2") OR APPROVED EQUIVALENT, WHICH SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C1372 AND ASTM C-140. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 POUNDS PER SQUARE INCH (PSI) WITH A MAXIMUM MOISTURE ABSORPTION OF 8 PERCENT, AS FOR A NORMAL WEIGHT CONCRETE. SHAPE OF BLOCK AND COLOR REFER TO LANDSCAPE PLANS.
2. CONNECTING PINS
   - A. THE FIBERGLASS PINS SHALL BE 1/2-INCH-DIAMETER RODS. THE FLEXURAL STRENGTH FOR THE CONNECTING PINS SHALL BE AT LEAST 128,000 PSI WITH A SHORT BEAM SHEAR OF 6,400 PSI.
3. CAP CONSTRUCTION ADHESIVE
   - A. THE ADHESIVE SHALL BE APPROVED EQUIVALENT IN CONFORMANCE WITH ASTM 2339.
4. LEVELING BASE
   - A. LEVELING PAD SHALL CONSIST OF COMPACTED CRUSHED STONE OR CLASS 2 AGGREGATE BASE, 6 INCHES THICK BY 33 1/2 INCHES WIDE.
5. UNIT FILL
   - A. FILL FOR THE MODULAR UNITS SHALL BE CLASS 2 PERMEABLE MATERIAL OR FREE-DRAINING CRUSHED ROCK OR GRAVEL, 3/8 INCH TO 3/4 INCH, WITH NO MORE THAN 5 PERCENT PASSING THE NO. 50 SIEVE, IN ACCORDANCE WITH ASTM D448, AND IN ACCORDANCE WITH EITHER REQUIREMENTS FROM THE MANUFACTURER OR FROM NCMA DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS. THE GEOTECHNICAL ENGINEER SHOULD APPROVE GRADATION OF THE UNIT FILL. PEA GRAVEL IS NOT ALLOWED.
6. REINFORCED AND RETAINED WALL BACKFILL
   - A. REINFORCED BACKFILL AND RETAINED WALL BACKFILL MATERIAL SHALL CONSIST OF ONSITE NATIVE ACCEPTABLE FILL IN ACCORDANCE WITH THE REFERENCED GEOTECHNICAL REPORT. ANY IMPORTED MATERIAL SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER AND SHOULD MEET THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.
7. GEOGRID
   - A. WHERE REQUIRED, GEOGRID SHALL CONSIST OF MIRAGRID 7XT OR EQUIVALENT. APPROVED EQUIVALENT GEOGRID MATERIALS MAY ALSO BE SUITABLE. MAXIMUM GEOGRID SPACING IS 2' AND NO MORE THAN 2' FROM FINISHED GRADE TO UPPER LAYER OF GEOGRID.
8. DRAINAGE SYSTEM
   - A. DRAINAGE SYSTEM IMMEDIATELY BEHIND THE WALLS SHOULD BE PROVIDED USING A 4"-DIAMETER PVC PERFORATED PIPE (SDR 35) EMBEDDED IN CLASS 2 PERMEABLE MATERIAL OR FREE-DRAINING GRAVEL SURROUNDED BY SYNTHETIC FILTER FABRIC. THE WIDTH OF THE DRAIN BLANKET SHOULD BE AT LEAST 12". THE DRAIN BLANKET SHOULD EXTEND TO ABOUT 1' BELOW THE FINISHED GRADES. THE PIPE SHALL OUTFALL THROUGH THE FACE OF WALL PER DETAILS ON SHEET AS DETERMINED DURING CONSTRUCTION. A SECONDARY DRAINAGE BLANKET AND SUBDRAIN AT THE BACK OF THE REINFORCED SOIL ZONE MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER.
9. COMPACTION

   THE LEVELING BASE SHALL BE COMPACTED WITH A VIBRATORY PLATE OR EQUIVALENT AS APPROVED BY THE ENGINEER OR GEOTECHNICAL ENGINEER. DURING PLACEMENT OF THE INITIAL BLOCKS, THE BACKFILL ON BOTH SIDES (IF ANY) OF THE BLOCKS SHOULD BE COMPACTED SIMULTANEOUSLY TO REDUCE THE POTENTIAL FOR MOVEMENT OF INITIAL BLOCK COURSE(S). ENGINEERED FILL SHALL CONFORM TO THE COMPACTION REQUIREMENTS PROVIDED IN THE PROJECT GEOTECHNICAL INVESTIGATION REPORT.

DESIGN PARAMETERS

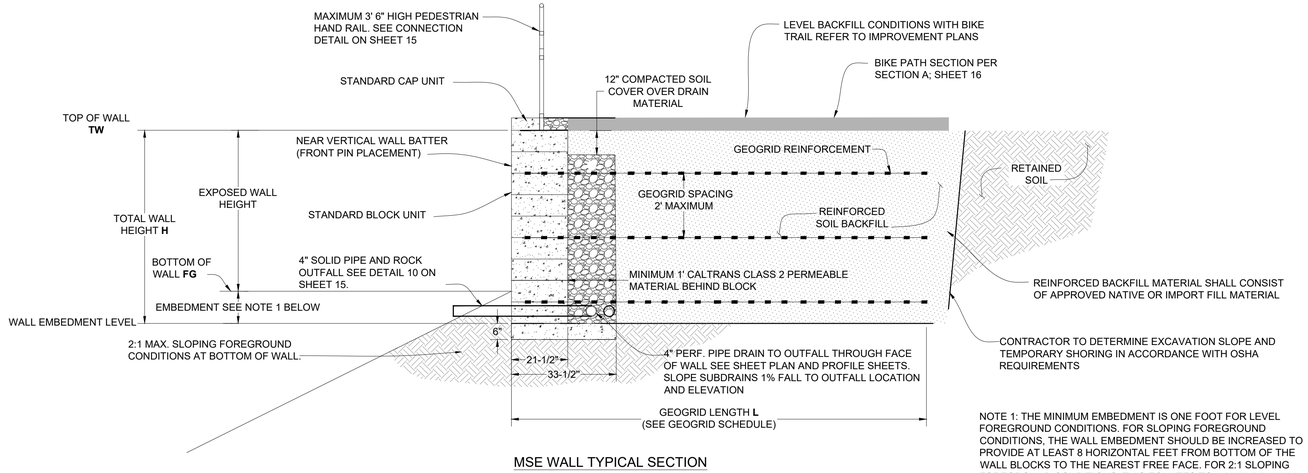
1. DESIGN LOADINGS
   - A. GEOTECHNICAL DESIGN PARAMETERS

MSE Wall Soil Material Parameters			
CONDITION	COHESION (c') (pcf)	FRICTION ANGLE (Æ') (degrees)	UNIT WEIGHT (g) (pcf)
Reinforced Fill (On-site Soil Material)	0	28	125
Retained Soil	0	28	125
Foundation Fill	0	28	125

   - B. WIND LOADING
     7.4 PSF (SERVICE LOAD) ON EXPOSED WOOD FENCE

INSTALLATION PROCEDURES:

1. EXCAVATE TO THE GRADES AS REQUIRED.
2. PREPARE BASE FOR LEVELING PAD. PLACE LEVELING PAD MATERIAL. STEP LEVELING PAD IN 8-INCH INCREMENTS WHEN FOUNDATION ELEVATION CHANGES.
3. INSTALL BASE COURSE OVER LEVELING PAD.
4. PLACE DRAINAGE PIPE AND DRAINAGE MATERIAL BACK OF WALL.
5. INSERT FIBERGLASS PINS AND PLACE DRAINAGE MATERIAL.
6. PLACE WALL BACKFILL AND COMPACT TO PROJECT REQUIREMENTS. USE ONLY HAND OPERATED EQUIPMENT WITHIN 3 FEET OF WALL.
7. PLACE GEOGRID OVER THE FIBERGLASS PINS AND EXTEND OVER LEVEL BACKFILL BEHIND FACING UNITS.
8. PLACE NEXT UNIT.
9. PULL GEOGRID TAUGHT AND BACKFILL (STAKE AS REQUIRED TO MAINTAIN GEOGRID TENSION). FOR GEOGRID PLACEMENT REFER TO MANUFACTURER'S RECOMMENDATIONS FOR PROPER PLACEMENT.



MSE WALL TYPICAL SECTION
NO SCALE

NOTE 1: THE MINIMUM EMBEDMENT IS ONE FOOT FOR LEVEL FOREGROUND CONDITIONS. FOR SLOPING FOREGROUND CONDITIONS, THE WALL EMBEDMENT SHOULD BE INCREASED TO PROVIDE AT LEAST 8 HORIZONTAL FEET FROM BOTTOM OF THE WALL BLOCKS TO THE NEAREST FREE FACE. FOR 2:1 SLOPING FOREGROUND CONDITIONS, THIS EQUATES TO A MINIMUM WALL EMBEDMENT OF 4 FEET.

MSE RETAINING WALL - GEOGRID SCHEDULE

TOTAL WALL HEIGHT INCLUDING EMBEDMENT **H**	MIRAFI GEOGRID TYPE	GEOGRID LENGTH **L**	GEOGRID ELEVATIONS MEASURED FROM BOTTOM OF WALL
4'	7XT	6'	2'
6'	7XT	8.5'	2'/4'
8'	7XT	10.5'	2'/4'/6'
10'	7XT	13'	2'/4'/6'/8'

1 TYPICAL MSE WALL DETAIL
NO SCALE

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DANVILLE

REV.	DATE	DESCRIPTION	BY

ENGEO Expect Excellence
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CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

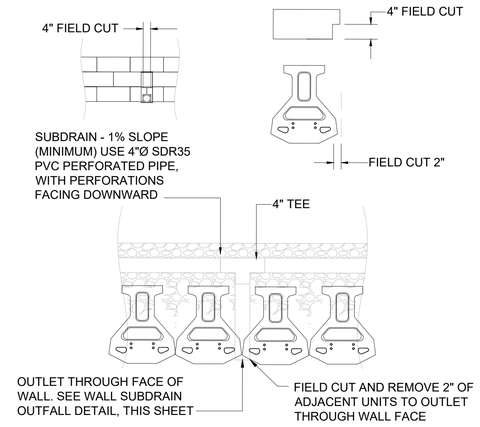
REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
No. 67302
CIVIL
STATE OF CALIFORNIA

MSE WALL NOTES AND DETAILS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 14 OF 22 SHEETS
PROJECT NO. 8870.000.011



1 DRAIN DETAIL
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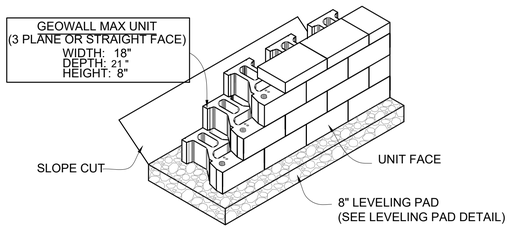
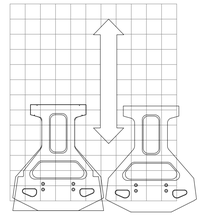
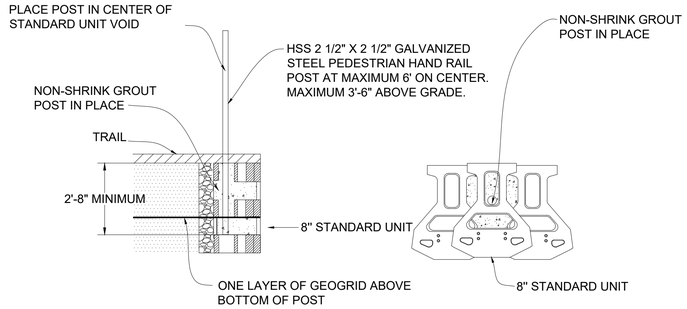


4 GEOWALL MAX UNIT/BASE PAD ISOMETRIC VIEW
NO SCALE



GEOGRID IS TO BE PLACED ON LEVEL BACKFILL OVER THE FIBERGLASS PINS. PLACE NEXT UNIT. PULL GRID TAUT AND BACKFILL. STAKE AS REQUIRED.

2 FRICTIONAL CONNECTION
NO SCALE



5 STEEL HANDRAIL POST CONNECTION DETAIL
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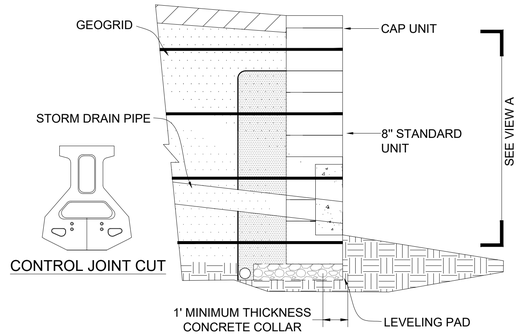

3 TYPICAL STORM DRAIN DETAIL
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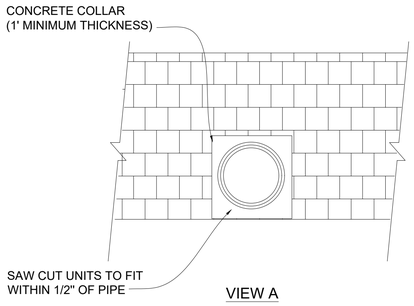
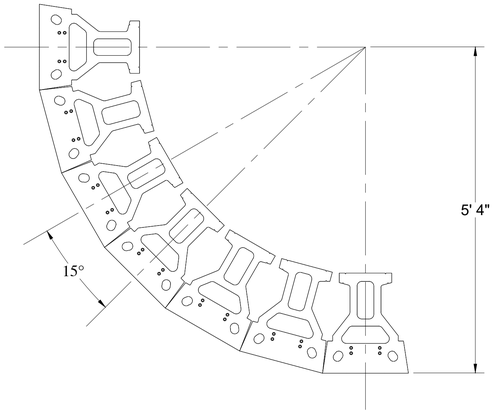


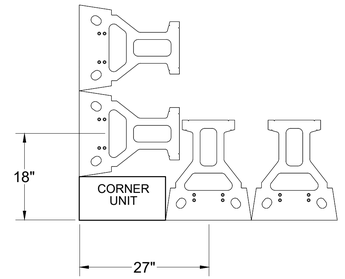
VIEW A

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



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

6 RADIUS DETAIL (PLAN)
NO SCALE



7 CORNER DETAIL (PLAN)
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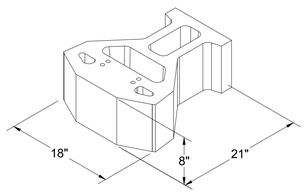
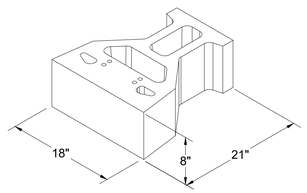


8 3 PLANE GEOWALL MAX UNIT
NO SCALE



9 STRAIGHT FACE GEOWALL MAX UNIT
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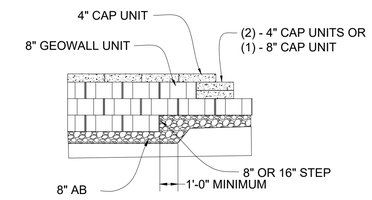

10 STEPPING AND CAPPING DETAIL
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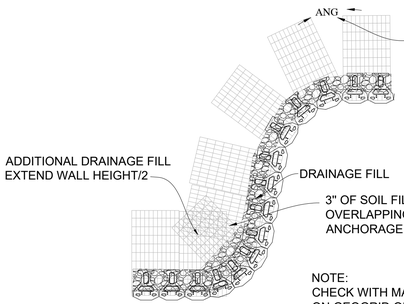
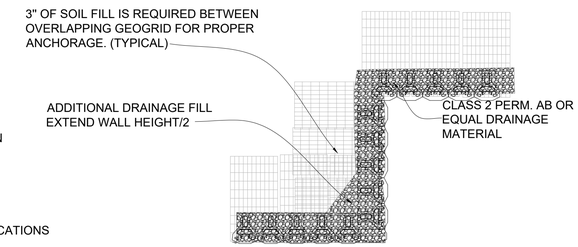
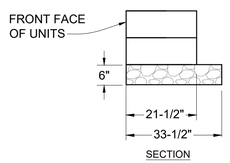


NOTE:
CHECK WITH MANUFACTURER'S SPECIFICATIONS ON GEOGRID ORIENTATION.

11 GEOGRID INSTALLATION ON CURVES
NO SCALE



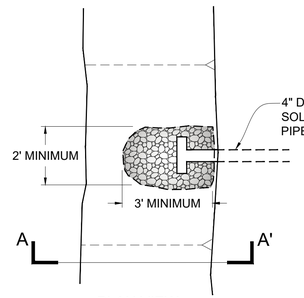
12 GEOGRID INSTALLATION AT CORNERS
NO SCALE



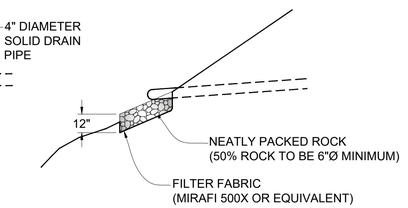
LEVELING PAD MATERIAL

COMPACTED CLASS 2 AGGREGATE BASE MATERIAL OR EQUAL

13 LEVELING PAD DETAIL
NO SCALE



PLAN VIEW



SECTION A-A'

14 WALL SUBDRAIN OUTFALL
NO SCALE

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DANVILLE

REV.	DATE	DESCRIPTION	BY

ENGEO
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SUITE 250
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(925) 866-9000
(888) 279-2698
CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
No. 67302
CIVIL
STATE OF CALIFORNIA

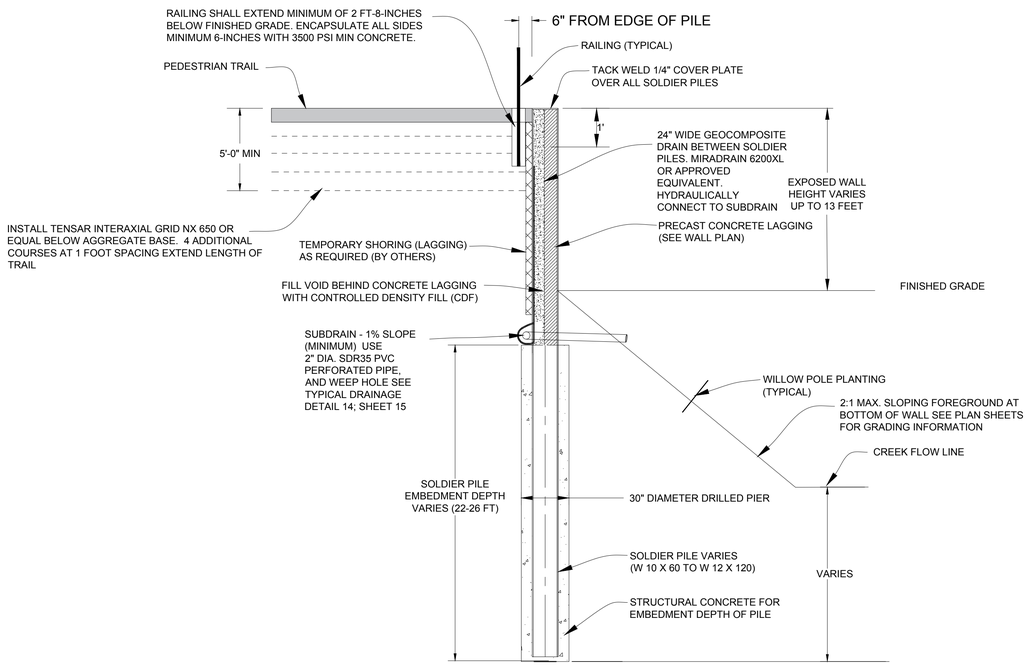
WALL DETAILS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

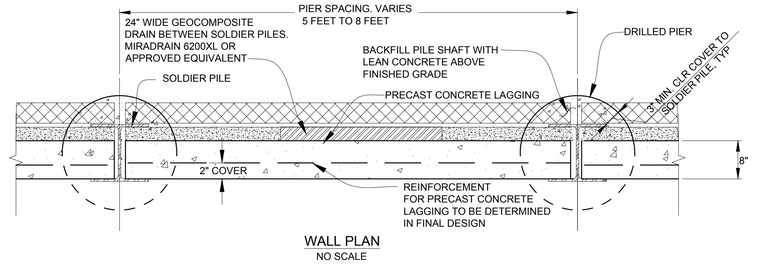
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 15 OF 22 SHEETS

PROJECT NO. 8870.000.011

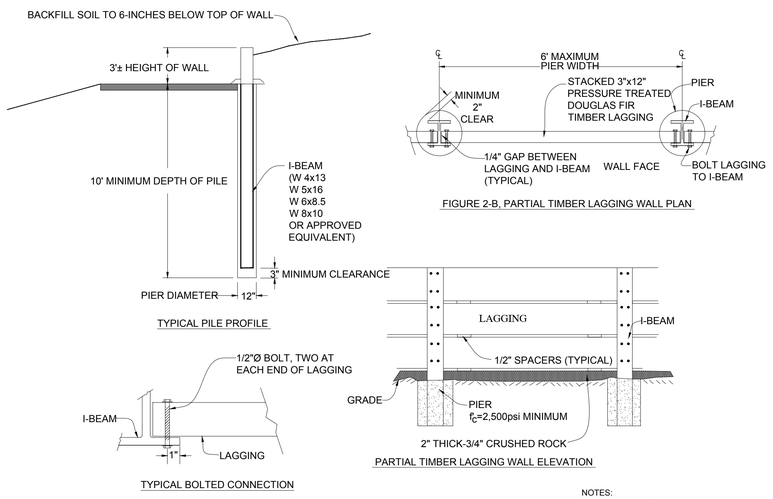


TYPICAL SECTION SOLDIER PILE WALL
NO SCALE



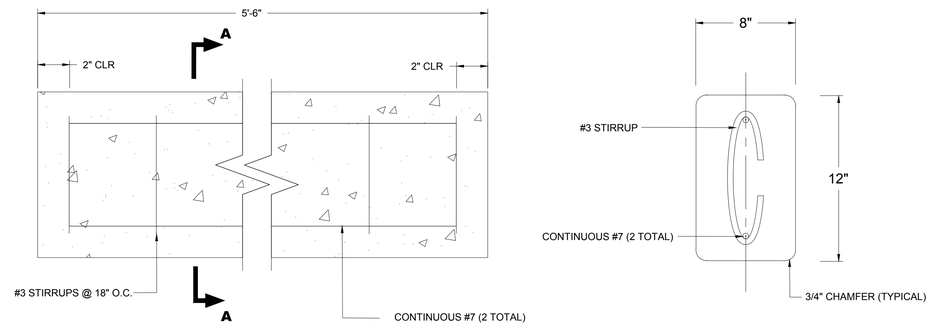
WALL PLAN
NO SCALE

1 TYPICAL SOLDIER PILE WALL DETAIL
NO SCALE



NOTES:
1. BOLTED CONNECTION NOT REQUIRED IN AREAS WHERE BACKFILL IS PLACED.
2. CONTRACTOR TO TAPER WALL AT BOTH ENDS, WITH 1 FOOT AND 2 FOOT SEGMENTS AS DIRECTED BY THE ENGINEER
3. TIMBER LAGGING SHALL CONFORM TO SECTION 57-2.01B(2), AND 57-2.01B(3) 2023 CALTRANS SPECIFICATIONS.

2 TYPICAL DEBRIS WALL DETAIL
NO SCALE



SECTION A-A

3 TYPICAL SOLDIER PILE WALL LAGGING DETAIL
NO SCALE

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DANVILLE

REV.	DATE	DESCRIPTION	BY

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DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER
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STATE OF CALIFORNIA

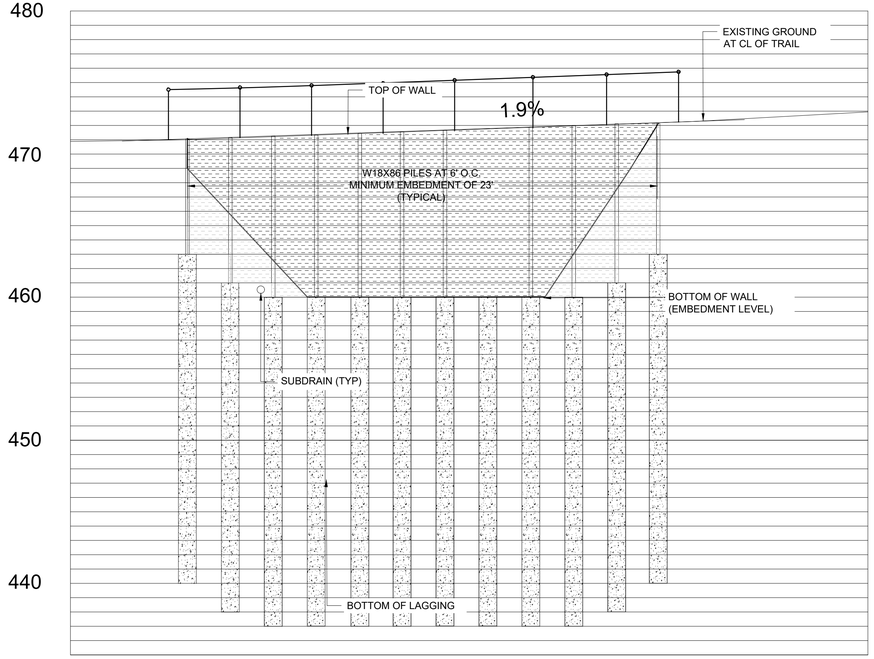
SOLDIER PILE WALL SECTIONS AND DETAILS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

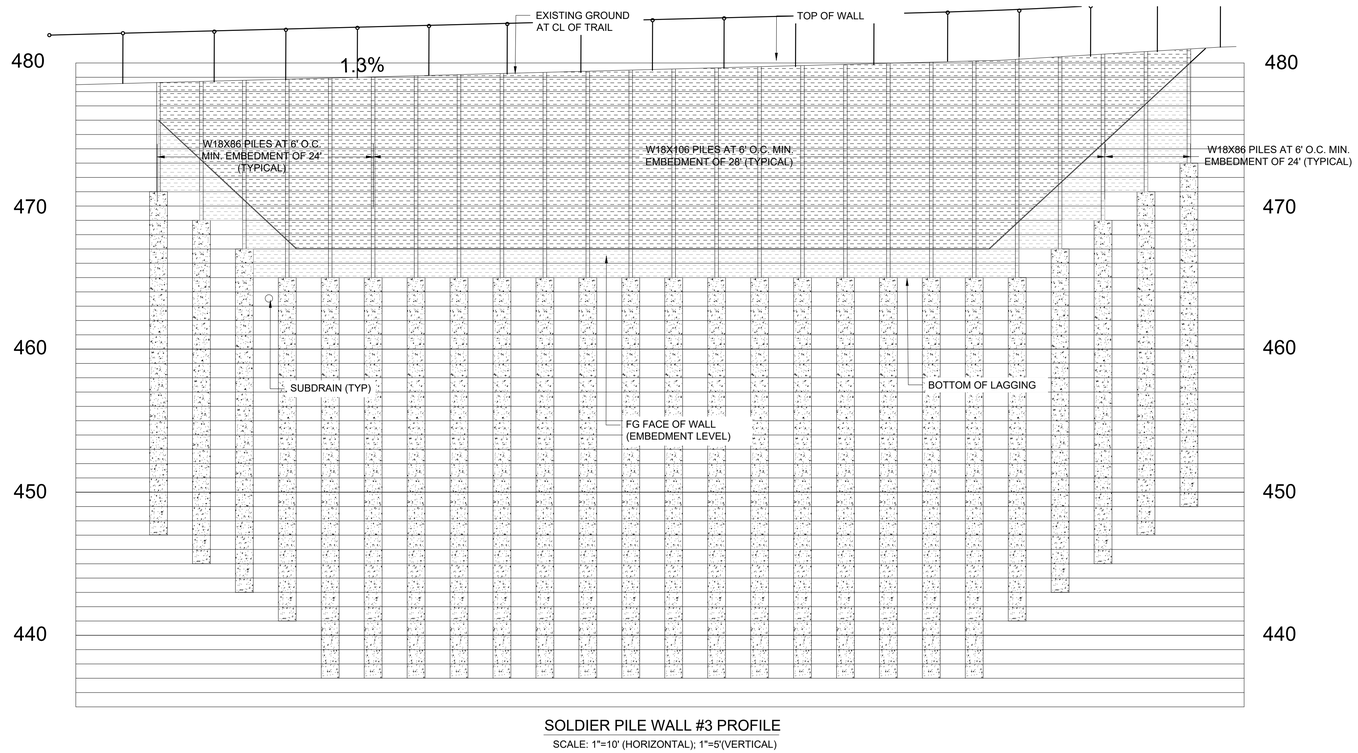
SHEET NUMBER 16 OF 22 SHEETS

PROJECT NO. 8870.000.011



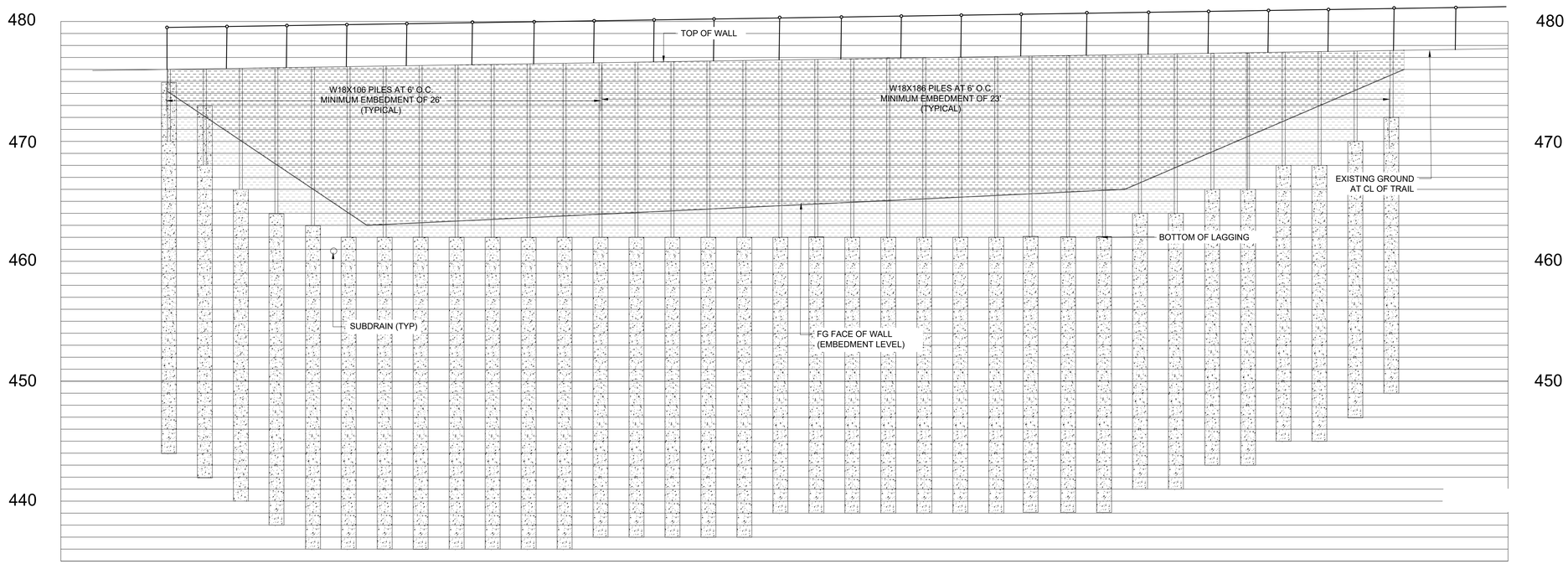
SOLDIER PILE WALL #1 PROFILE

SCALE: 1"=10' (HORIZONTAL); 1"=5'(VERTICAL)



SOLDIER PILE WALL #3 PROFILE

SCALE: 1"=10' (HORIZONTAL); 1"=5'(VERTICAL)



SOLDIER PILE WALL #2 PROFILE

SCALE: 1"=10' (HORIZONTAL); 1"=5'(VERTICAL)

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DANVILLE

REV.	DATE	DESCRIPTION	BY

ENGEO
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DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MARCH 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BLACK
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STATE OF CALIFORNIA

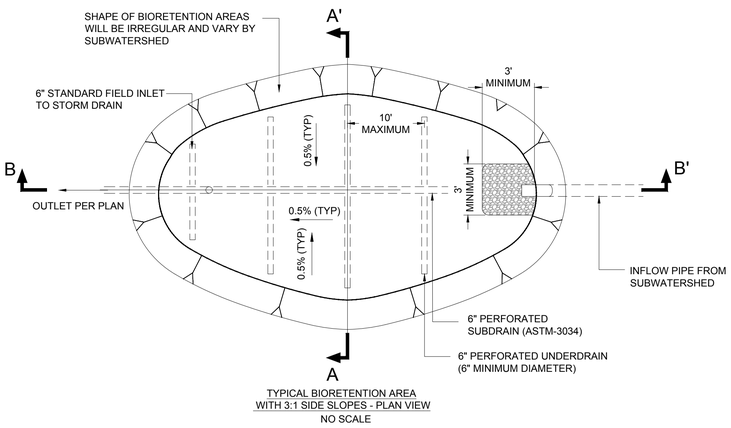
SOLDIER PILE WALLS PROFILES

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

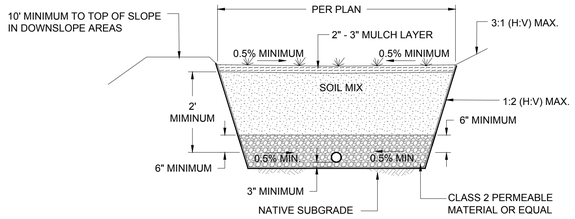
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 17 OF 22 SHEETS

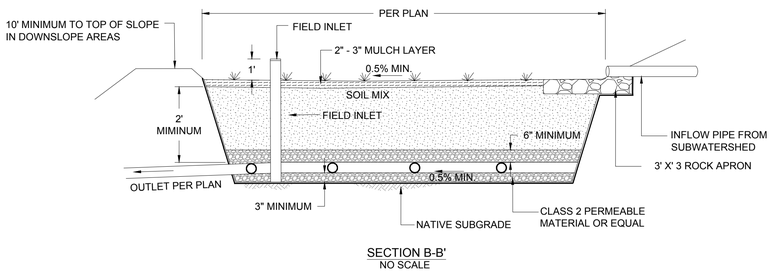
PROJECT NO. 8870.000.011



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

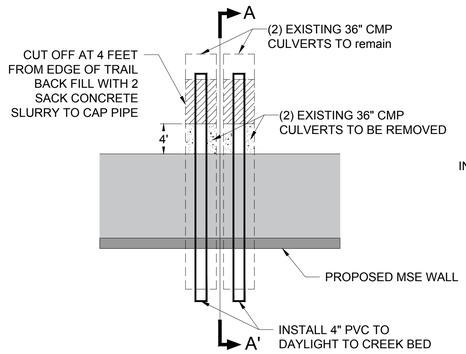


SECTION A-A'
NO SCALE

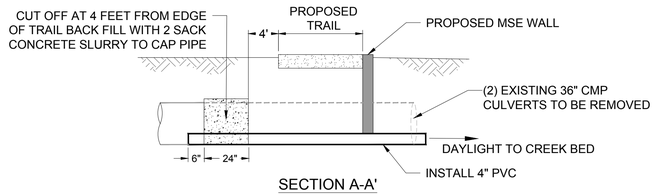


SECTION B-B'
NO SCALE

1 TYPICAL BIORETENTION DETAIL
NO SCALE



PLAN VIEW



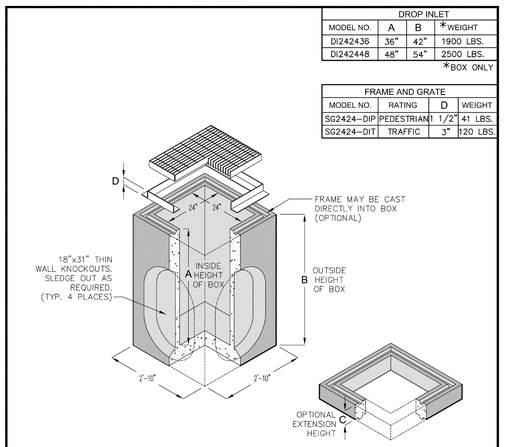
SECTION A-A'

2 TYPICAL CULVERT REMOVAL 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 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 AVALIABLE 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

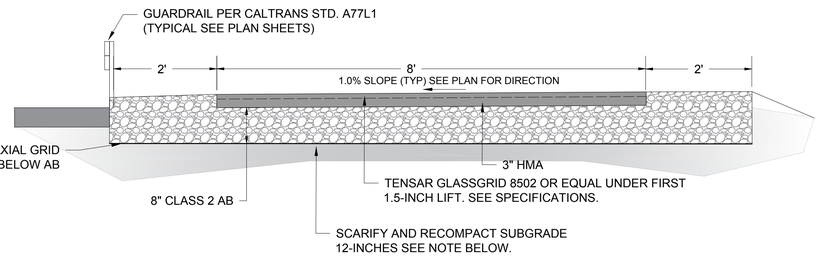
JENSEN PRECAST

DRG. ENG. DATE: 11-28-00 | CO. ENG. DATE:

DI2424

8.01

3 TYPICAL DRAIN INLET DETAIL
NO SCALE

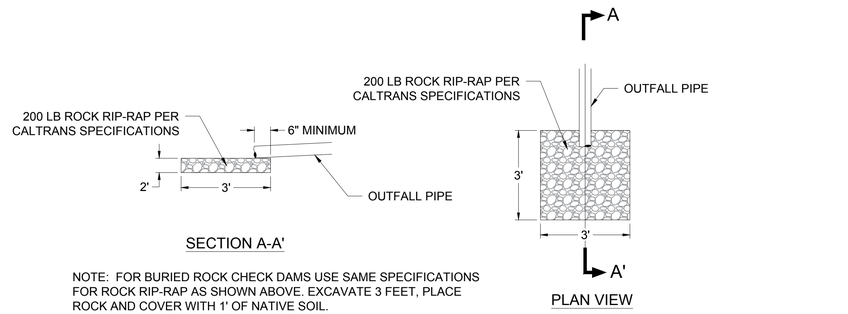


PAVEMENT CONSTRUCTION

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 CALTRANS SPECIFICATIONS FOR V-MIX HOT MIX ASPHALT.

A TYPICAL TRAIL SECTION
NO SCALE

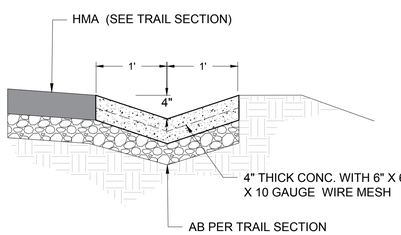


SECTION A-A'

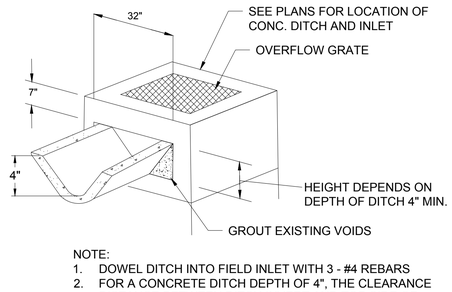
PLAN VIEW

NOTE: FOR BURIED ROCK CHECK DAMS USE SAME SPECIFICATIONS FOR ROCK RIP-RAP AS SHOWN ABOVE. EXCAVATE 3 FEET, PLACE ROCK AND COVER WITH 1' OF NATIVE SOIL.

4 TYPICAL ROCK RIP-RAP APRON DETAIL
NO SCALE



5 TYPICAL V-DITCH DETAIL
NO SCALE



NOTE:
1. DOWEL DITCH INTO FIELD INLET WITH 3 - #4 REBARS
2. FOR A CONCRETE DITCH DEPTH OF 4", THE CLEARANCE DISTANCE BETWEEN DITCH INVERT AND TOP SIDE OF OPENING IS 4"

5 TYPICAL V-DITCH DETAIL
NO SCALE

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(925) 866-9000
(888) 279-2698
CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN D. BUCK No. 67302 CIVIL STATE OF CALIFORNIA

CONSTRUCTION DETAILS & SECTIONS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 18 OF 22 SHEETS

PROJECT NO. 8870.000.011

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DRAFT

CLYDESDALE DR.

FAIRWAY DRIVE

CALLE ARROYO

ALAMEDA DIABLO

REMOVE 10-INCH DIA. OAK

REMOVE EXISTING CONCRETE CATTLE TROUGH AND PRESERVE CONNECTION TO EXISTING WATER SURFACE

REMOVE 5-INCH DIA. OAK

REMOVE 14-INCH DIA. OAK

REMOVE 16-INCH DIA. OAK

REMOVE EXISTING BARB-WIRE FENCE (TYPICAL TO END OF PROJECT)

EXISTING UTILITY POLE (TYPICAL)

REMOVE 2-CULVERTS AND INSTALL DRAIN PER DETAIL 2, SHEET 18

REMOVE 39-INCH DIA. VALLEY OAK

TAMP SOIL INTO OPPOSITE BANK TO PROTECT TREE ROOTS. SEE PROJECT SPECIFICATIONS.

REMOVE APPROXIMATELY 0.75 CY OF CONCRETE RUBBLE IN THIS AREA. DO NOT DISTURB SURROUNDING CREEK AREA.

APPROXIMATE AREA OF CLEAR AND GRUBBING ASSOCIATED WITH REMOVAL OF INVASIVE PISTACHE TREES; SEE CONTRACT SPECIFICATIONS.

CONTINUE DEMOLITION OF EXISTING FENCE TO END OF NEW CATTLE EXCLUSION FENCE

SEE TOP PLAN
SEE BOTTOM PLAN

N

50 25 0 50
SCALE IN FEET

REMOVE CLUSTER OF TREES IN THIS AREA:
1 - 18" VALLEY OAK
1 - 12" VALLEY OAK
1 - 16" COAST LIVE OAK
1 - 10" COAST LIVE OAK
1 - 8" COAST LIVE OAK
1 - 7" COAST LIVE OAK
1 - 6" COAST LIVE OAK
PROTECT REMAINDER OF TREES PER TREE PROTECTION DETAIL 3, SHEET 22

REMOVE EXISTING BARB-WIRE FENCE (TYPICAL TO END OF PROJECT)

513.38
FL 18"

520.98
FL 12"

REMOVE EXISTING GATE

EDGE OF ROAD

REMOVE EXISTING BARB-WIRE FENCE (TYPICAL TO END OF PROJECT)

N

50 25 0 50
SCALE IN FEET

NOTES:

1. EXISTING BARBWIRE FENCE TO BE REMOVED IN COORDINATION WITH CONSTRUCTION OF NEW FENCE PER PLAN SHEETS 20-21 AND AS APPROVED BY THE TOWN.
2. TREE REMOVAL SHOWN HERE SHALL BE PERFORMED IN ACCORDANCE WITH TOWN OF DANVILLE. CONTRACTOR SHALL MINIMIZE TREE REMOVALS WHERE PRACTICAL.
3. ALL TREES TO REMAIN GREATER THAN 6-INCHES IN DIAMETER SHALL REQUIRE PROTECTIVE FENCING. SEE DETAIL 3, SHEET 22.

EXPLANATION

- TREES TO BE REMOVED BY TOWN OF DANVILLE IN 2025 PRIOR TO THIS PROJECT
- TREES TO BE REMOVED BY TOWN OF DANVILLE IN 2025 PRIOR TO THIS PROJECT
- EXISTING FENCE TO BE REMOVED

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BLACK No. 67302 CIVIL STATE OF CALIFORNIA

DEMOLITION PLAN

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 19 OF 22 SHEETS
PROJECT NO. 8870.000.011

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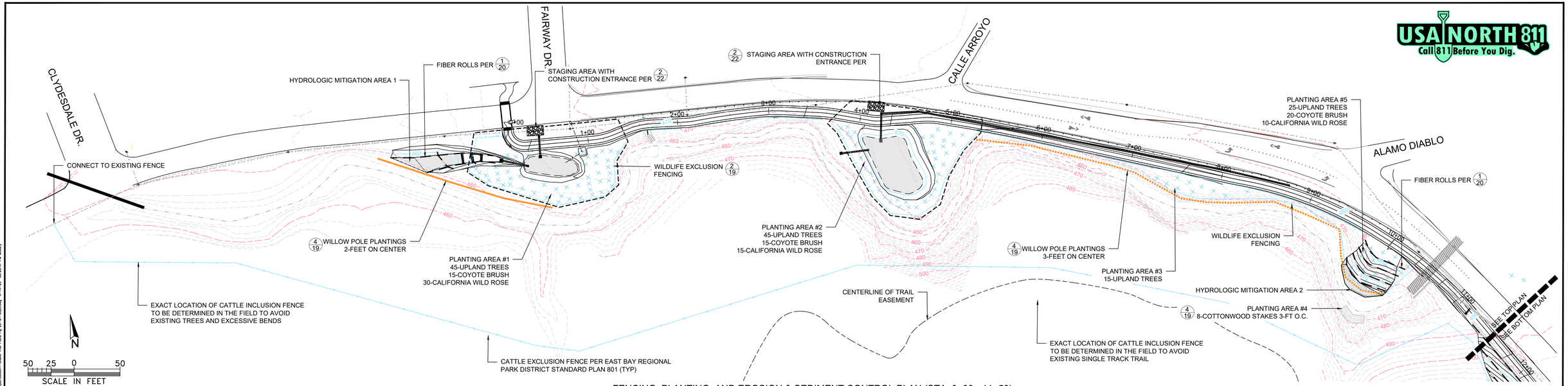
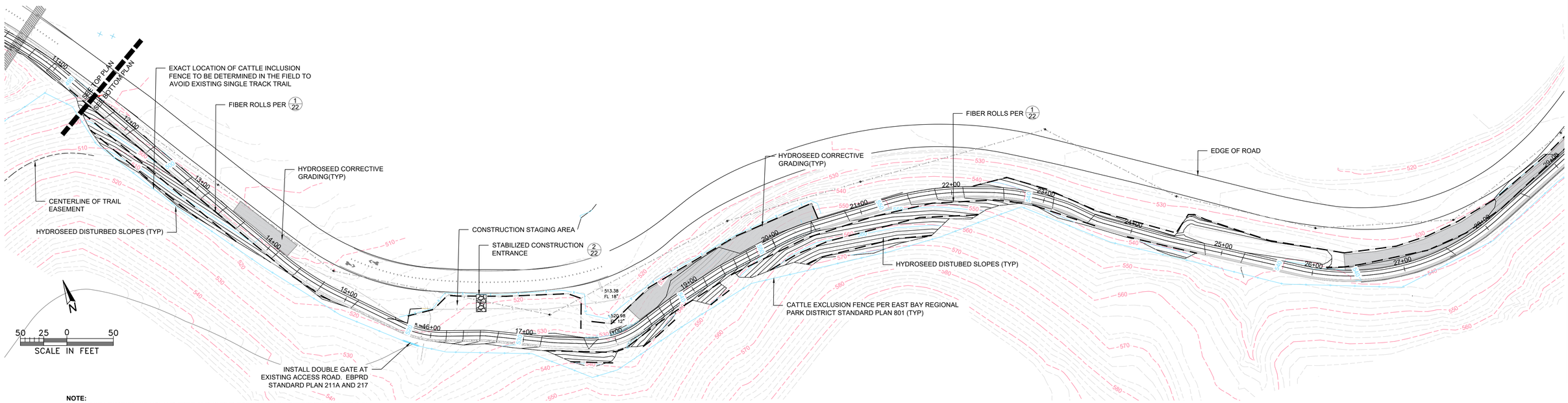


FENCING, PLANTING, AND EROSION & SEDIMENT CONTROL PLAN (STA: 0+00 - 11+50)
SCALE: 1"=50'



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

NOTE:

1. EXACT LOCATION OF UPLAND TREE AND SHRUB SPECIES TO BE DETERMINED IN FIELD BY TOWN PAID RESTORATION ECOLOGIST. TREES SHALL CONSIST OF CALIFORNIA OAK (QUERCUS SPP.) AND CALIFORNIA BUCKEYE (AESCULUS SPP.). SHRUBS SHALL CONSIST OF CALIFORNIA WILD ROSE (ROSA CALIFORNIA) AND COYOTE BRUSH (BACCHARIS PILULARIS).
2. 20% OF TREE CONTAINER PLANS SHALL BE 5-GALLON MINIMUM; REMAINDER SHALL BE 1-GALLON MINIMUM.
3. ALL PLANTS GROWN IN NURSERY AND BROUGHT TO SITE SHALL CONFORM TO BEST PRACTICES TO PREVENT SPREAD OF SUDDEN OAK DEATH PER PROJECT STREAMBED ALTERATION AGREEMENT.
4. CONTRACTOR TO INSTALL A GRAVITY FLOW IRRIGATION SYSTEM TO ALL AREAS WHERE CONTAINER PLANTING IS PROPOSED. SEE PROJECT SPECIFICATIONS.
5. ALL CONSTRUCTION STAGING AREAS SHALL BE HYDROSEEDED AND RESTORED TO ORIGINAL CONDITION AT END OF PROJECT

EXPLANATION

- CATTLE EXCLUSION FENCE
- TEMPORARY WILDLIFE EXCLUSION FENCE (SEE DETAIL SHEET 22)
- STRAW WATTLES
- UPLAND TREE AND SHRUB INSTALLATION (SEE DETAIL SHEET 21)
- WILLOW OR COTTONWOOD POLE PLANTING

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DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCKLEY
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CIVIL
STATE OF CALIFORNIA

FENCING, PLANTING AND EROSION AND SEDIMENT CONTROL PLAN

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 20 OF 22 SHEETS
PROJECT NO. 8870.000.011

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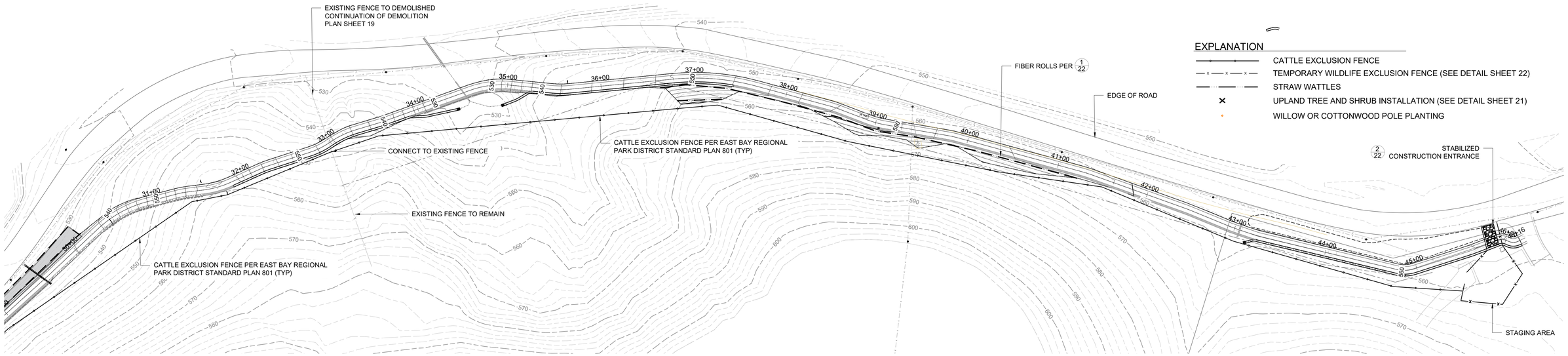

FENCING, PLANTING, AND EROSION & SEDIMENT CONTROL PLAN (STA: 29+00 - 45+55)

SCALE: 1"=50'

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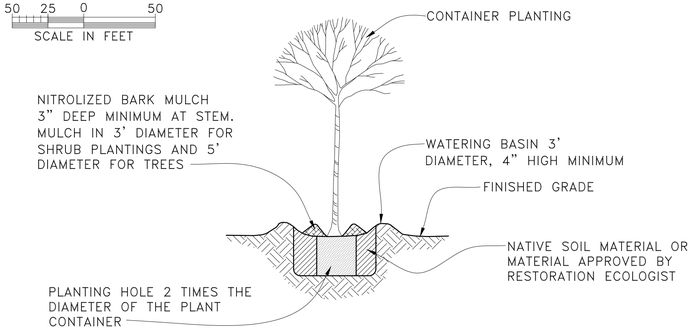
SCALE IN FEET

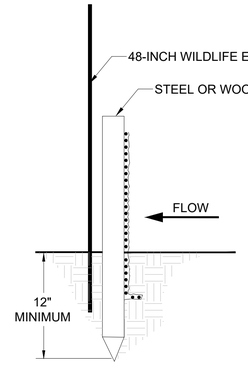


1. SCALP TREE POSITION CLEAR OF ANNUAL GRASS AND FORBS. 5' IN DIAMETER FOR TREES AND 3' IN DIAMETER FOR SHRUBS.

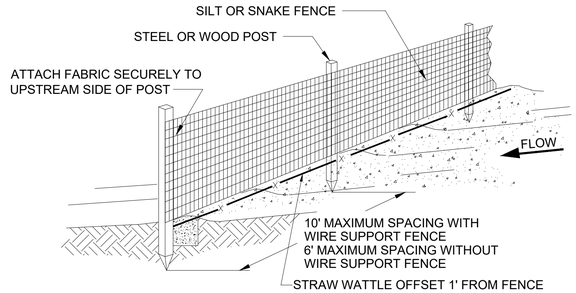
2. IN ENGINEERED FILL MATERIAL, AUGER PLANTING HOLE AND AUGER SIDES OF HOLE PRIOR TO BACKFILLING.

1 — **TYPICAL UPLAND TREE INSTALLATION**

NO SCALE



TRENCH



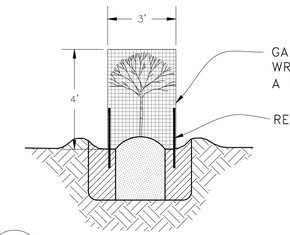
NOTES:

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 IN VICINITY OF GREEN VALLEY CREEK.

SOURCE: JOHN McCULLAH, 1994

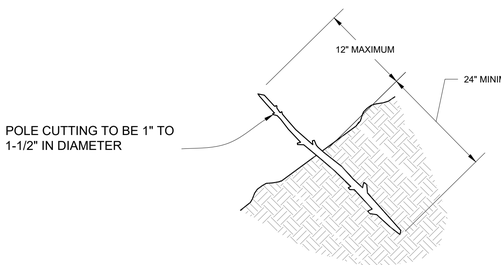
2 — **SILT FENCE / WILDLIFE EXCLUSION FENCING DETAIL**

NO SCALE



3 — **ANTI BROWSE CAGE**

NO SCALE



1. BACKFILL WITH NATIVE SOIL TO REMOVE AIR POCKETS.

2. SEE PLANS FOR LOCATION AND SPACING OF WILLOW POLES.

4 — **TYPICAL WILLOW OR COTTONWOOD PLANTING**

NO SCALE

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CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

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FENCING AND EROSION CONTROL PLAN

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 21 OF 22 SHEETS

PROJECT NO. 8870.000.011

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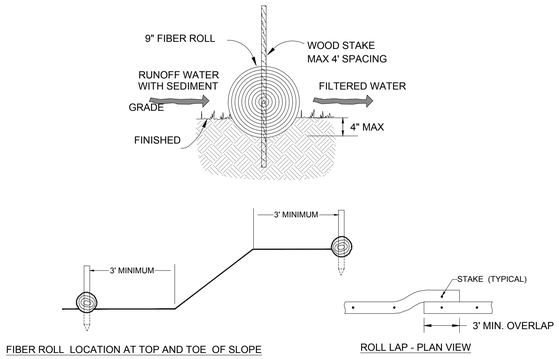


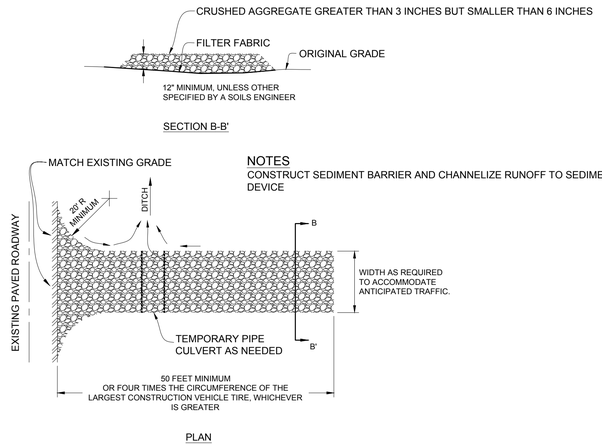
FIBER ROLL LOCATION AT TOP AND TOE OF SLOPE

ROLL LAP - PLAN VIEW

NOTES:

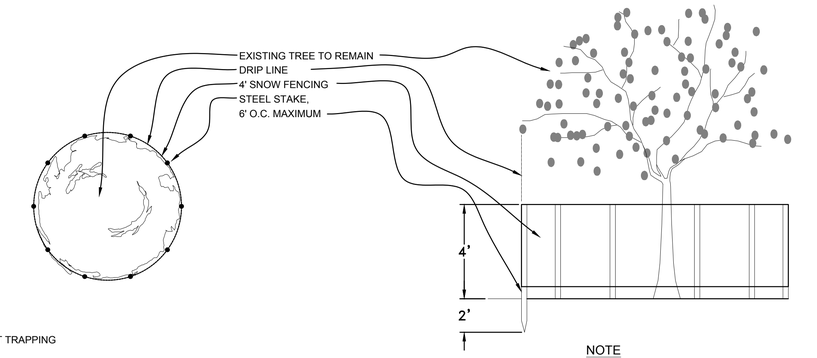
1. PREPARE SLOPE BEFORE THE FIBER ROLL PROCEDURE IS STARTED.
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 4" DEEP, ON CONTOUR OR AS SHOWN ON PLANS.
3. USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE FIBER ROLL AND INTO THE SOIL FOR WOODEN STAKES.
4. 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



NOTES
CONSTRUCT SEDIMENT BARRIER AND CHANNELIZE RUNOFF TO SEDIMENT TRAPPING DEVICE

2 — STABILIZED CONSTRUCTION ENTRANCE
NO SCALE



NOTE
TREE ZONE FENCE SHALL BE BARRIER TREE PROTECTION FENCE OR EQUAL

3 — EXISTING TREE PROTECTIVE FENCING
NO SCALE

SEED MIX

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

SEED MIX

REGREEN (ELYMUS X TRITICUM)	12.0 LBS/ACRE
CREEPING WILDRYE (LEYMUS TRITICOIDES)	8.0 LBS/ACRE
BLUE WILDRYE (ELYMUS GLAUCUS)	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
TOTAL (LBS/ACRE)	36.5 LBS/ARCE

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.

BASIC CONTROL MEASURES:

1. WATER ALL ACTIVE CONTRUCTION 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 STABLILIZERS 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.

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 TARPAULIN 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/OWNERS'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.
15. CONTRACTOR SHALL HYDROSEED ALL DISTRURBED AREAS AT END OF PROJECT, INCLUDING CONSTRUCTION STAGING AREAS, TO THE SATISFACTION OF THE ENGINEER.

USA NORTH 811 Call 811 Before You Dig.

DANVILLE

REV.	DATE	DESCRIPTION	BY

ENGEO Expect Excellence
2010 CROW CANYON PLACE
SUITE 250
SAN RAMON, CALIFORNIA 94583-4634
(925) 866-9000
(888) 279-2698
CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCKLEY No. 67302 CIVIL STATE OF CALIFORNIA

EROSION AND SEDIMENT CONTROL DETAILS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 22 OF 22 SHEETS
PROJECT NO. 8870.000.011

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APPENDIX B

STORMWATER POLLUTION PREVENTION

General Construction and Site Supervision

Earth Moving Activities

Stormwater Pollution Prevention for Sawcut Slurry

Roadwork and Paving

Fresh Concrete and Mortar Application

Painting and Application of Solvents and Adhesives

Pollution Prevention – It’s Part of the Plan

This brochure is one of a series of pamphlets describing storm drain protection measures for specific types of construction industry activities. Other pamphlets include:

General Construction and Site Supervision

Landscaping, Gardening and Pool Maintenance

Painting and Application of Solvents and Adhesives

Fresh Concrete and Mortar Application

Roadwork and Paving

Earth-Moving Activities

Heavy Equipment Operation

For more information about the county-wide storm drain protection program and additional brochures, call:

Contra Costa
Clean Water Program
255 Glacier Drive
Martinez, CA 94553
1-800-NO-DUMPING

Spill Response Agencies

1. Dial 911
2. Governor's Office of Emergency Services Warning Center
   (800) 852-7550 (24 hours)

Local Pollution Control Agencies

Contra Costa Clean Water Program	(925) 313-2360
City of Antioch	(925) 779-7097
City of Brentwood	(925) 516-5169
City of Clayton	(925) 673-7308
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General Construction and Site Supervision

Best Management Practices for the Construction Industry

**Contra Costa
Clean Water Program**

Storm Drain Pollution Prevention: It's Up to Us

In Contra Costa County, storm drains flow directly to local creeks, San Francisco Bay, and the delta with no treatment. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street or storm drain.

Eighteen cities, the County, and the County Flood Control District have joined together to educate local residents and businesses to fight storm drain pollution. We hope you will join us, by using the practices described in this pamphlet.

Advance Planning to Prevent Pollution

- Schedule excavation and grading activities for dry weather periods.
- Control the amount of runoff crossing your site (especially during excavation!) by using berms or drainage ditches to divert water flow around the site.
- Train your employees and sub-contractors. Make these brochures available to everyone who works on the site. Inform subcontractors about the new stormwater requirements and their own responsibilities. Refer to *Blueprint for a Clean Bay*, a construction best management practices guide available from the Contra Costa Clean Water Program.

Good Housekeeping Practices

- Designate one area of the site for auto parking, vehicle refueling, and routine equipment maintenance. The designated area should be well away from streams or storm drain inlets, and bermed if necessary. Make major repairs off-site.
- Keep materials out of the rain – prevent runoff contamination at the source. Cover up leaks, drips and other spills immediately so they do not contaminate soil or groundwater or leave residue on paved surfaces.
- Never hose down "dirty" pavement or surfaces where materials have spilled. Use dry cleanup methods whenever possible. If you must use water, use just enough to keep the dust down and protect storm drain inlets.
- Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster.
- Never clean out a dumpster by hosing it down on the construction site.
- Make sure portable toilets are in good working order. Check frequently for leaks.

Storm Drain Pollution from Construction Activities

Construction sites are common sources of stormwater pollution. Materials and wastes that blow or wash into a storm drain, gutter, or street have a direct impact on local creeks and the Bay. As a contractor, site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

Materials/Waste/Handling

- Practice source reduction – minimize waste when you order materials. Order only the amount you need to finish the job.
- Use recyclable materials whenever possible.
- Dispose of all wastes properly. Many construction materials and wastes, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. (See the reference list of recyclers at the back of *Blueprint for a Clean Bay).* Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. Never bury waste materials or leave them in the street or near a creek or streambed.

This brochure is one of a series of pamphlets describing storm drain protection measures for specific types of construction industry activities. Other pamphlets include:

General Construction and Site Supervision

Landscaping, Gardening and Pool Maintenance

Painting and Application of Solvents and Adhesives

Fresh Concrete and Mortar Application

Roadwork and Paving

Earth-Moving Activities

Heavy Equipment Operation

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EARTH MOVING ACTIVITIES

Best Management Practices for the Construction Industry

**Contra Costa
Clean Water Program**

Storm Drain Pollution Prevention: It's Up to Us

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Who should use this brochure?

Bulldozer, Backhoe, and Grading Machine Operators
Dump Truck Drivers
Site Supervisors
General Contractors
Home Builders
Developers

Storm Drain Pollution from Earth-Moving Activities

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains if handled improperly. Soil erodes due to a combination of decreased soil stability, increased runoff, and increased flow velocity. Some of the most effective erosion control practices reduce the amount of runoff crossing a site and slow the flow with check dams and roughened ground surfaces.

What Can You Do?

During Construction

- Remove existing vegetation only when absolutely necessary.
- Consider planting temporary vegetation or implement other appropriate erosion controls on slopes where construction is not immediately planned.
- Protect downslope drainage courses, streams, and storm drains with silt fences or other controls to intercept and low the flow of sediment laden discharges.
- Use check dams or ditches to divert runoff around excavations.
- Cover stockpiles and excavated soil with secured tarps or plastic sheeting.
- Stockpile erosion controls during the wet season.

General Business Practices

- Schedule excavation and grading work for dry weather.
- Perform major equipment repairs away from the job site.
- When refueling or vehicle/equipment maintenance must be done on site, designate a location away from storm drains.
- Do not use diesel oil to lubricate equipment or parts.

Detecting contaminated soil or groundwater

It is essential that all contractors and subcontractors involved in excavation and grading know what to look for in detecting contaminated soil or groundwater. See Blueprint for a Clean Bay, a construction best management practices guide available from Contra Costa Clean Water Program, for details.
Watch for any of these conditions:

- ✓ Unusual soil conditions, discoloration, or odor
- ✓ Abandoned underground tanks
- ✓ Abandoned wells
- ✓ Buried barrels, debris, or trash

If contamination is suspected, call the appropriate local agency for further guidance (see reverse).

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- **General Construction and Site Supervision**
- **Landscaping, Gardening and Pool Maintenance**
- **Fresh Concrete and Mortar Application**
- **Roadwork and Paving**
- **Earth Moving Activities**
- **Heavy Equipment Operation**
- **Painting and Application of Solvents and Adhesives**
- **Dewatering Activities**
- **Home Repair and Remodeling**

BASMAA
Bay Area Stormwater Management Agencies Association

BASMAA gratefully acknowledges the City of Palo Alto and Alameda Countywide Clean Water Program for the original concept and text of this brochure.

For more information from countywide storm drain protection programs, and additional brochures, contact the storm-water program in your area (listed below) or by calling 1-888-BAYWISE.

Local Stormwater Quality Management Programs

Alameda Countywide Clean Water Program
951 Turner Court, Hayward, CA 94545
510-670-5543

Contra Costa Clean Water Program
255 Glacier Drive, Martinez, CA 94553-4897
925-313-2360

Fairfield-Suisun Urban Runoff Management Program
1010 Chadbourne Road, Fairfield, CA 94585
707-429-8930

Marin County Stormwater Pollution Prevention Program
P. O. Box 4186
San Rafael, CA 94913
415-499-6528

San Mateo Countywide Stormwater Pollution Prevention Program
555 County Center
Redwood City, CA 94063
650-599-1406

Santa Clara Valley Urban Runoff Pollution Prevention Program
699 Town & Country Village
Sunnyvale, CA 94086
800-794-2482

Vallejo Sanitation and Flood Control District
450 Ryder Street, Vallejo, CA 94590
707-644-8949

Bay Area Stormwater Management Agencies Association (BASMAA)
1515 Clay Street, Suite 1400
Oakland CA 94612
510-622-2326 or 1-888-BAYWISE

State Agencies

California Regional Water Quality Control Board
San Francisco Bay Region (510) 622-2300

Department of Toxic Substances *(for questions about hazardous waste, call the Public and Business Liaison Hotline, Regional Duty Officers at (800) 728-6942 or (800) 72TOXIC)*

Storm Water Pollution Prevention for

Sawcut Slurry

Best Management Practices for the Construction Industry

Why is Sawcut Slurry a Problem?

The slurry created when pavement is cut can enter storm drains and flow directly to local waterways. This slurry can be toxic to wildlife in a local creek, the creek, bay or ocean. It can also clog drains and cause flooding.

CAUTION: *If sawcut slurry from your job enters a storm drain, you have broken the law!*

Allowing slurry or other pollutants to enter a storm drain, or directly to a waterway, is a violation of local, state, and federal regulations. Violators are subject to fines and cleanup costs.

By following this three-step procedure when saw cutting you can protect the storm drain system, help environment, and avoid fines.

Minimize and Contain Slurry

Before you begin saw cutting, block the path to the nearest storm drain by placing sand bags (or equivalent) in the gutter or around the storm drain inlet. If you can lift the grate over the drain, place filter fabric underneath.

Even if the nearest drain is several blocks away, place a barrier in the gutter as near your site as practical to contain the slurry.

Use as little water as possible, to reduce the amount of slurry you must collect.

Barricade area where slurry is drying to prevent tracking by cars and foot traffic.

Collect Slurry

Clean up slurry with a wet vac as you work. Where wet slurry cannot be vacuumed, allow it to dry and then sweep up with a stiff broom at the end of the day.

Dispose of Slurry

Empty wet slurry into a well-contained area (where it will not run off into a gutter, street, or creek) and allow it to dry. A small amount of slurry may be mixed with dirt and left on the construction site. Where this is not possible, sweep up the dry slurry and dispose in the trash.

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Landscaping, Gardening and Pool Maintenance

Painting and Application of Solvents and Adhesives

Fresh Concrete and Mortar Application

Roadwork and Paving

Earth-Moving Activities

Heavy Equipment Operation

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Contra Costa
Clean Water Program
255 Glacier Drive
Martinez, CA 94553
1-800-NO-DUMPING

Spill Response Agencies

1. Dial 911
2. Governor's Office of Emergency Services Warning Center
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Local Pollution Control Agencies

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Fresh Concrete and Mortar Application

Best Management Practices for the Construction Industry

Contra Costa Clean Water Program

Storm Drain Pollution Prevention: It's Up to Us

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Who should use this brochure?

Masons and Bricklayers
Sidewalk Construction Workers
Patio Construction Workers
Construction Inspectors
General Contractors
Home Builders
Developers

What Can You Do?

- Both at your yard and the construction site, always store both dry and wet materials under cover, protected from rainfall and runoff. Protect dry materials from wind.
- Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from gutters, storm drains, rainfall, and runoff.
- Washout concrete mixers only in designated wash-out area, where the water will flow into containment ponds or onto dirt. Whenever possible, recycle washout by pumping back into mixers for re-use. Never dispose of washout into the street, storm drains, drainage ditches, or streams.

Storm Drain Pollution from Masonry and Paving

Fresh concrete and cement-related mortars that wash into lakes, streams, or estuaries are toxic to fish and the aquatic environment. Disposing of these materials to the storm drains or creeks cause serious problems – and is prohibited by law.

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During Construction

- Don't mix up more fresh concrete or cement than you will use in a day.
- Set up and operate small mixers on tarps or heavy plastic drop cloths.
- When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.
- Protect all storm drain inlets using filter fabric or other best management practices to capture and filter runoff carrying mortar or cement before it reaches the storm drain.
- When breaking up paving, be sure to pick up all the pieces and dispose of properly.
- Recycle large chunks of broken concrete at a landfill.
- Dispose of small amount of excess dry concrete grout and mortar in the trash.
- Never bury waste material.

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Painting and Application of Solvents and Adhesives

Best Management Practices for the Construction Industry

**Contra Costa
Clean Water Program**

Storm Drain Pollution Prevention: It's Up to Us

In Contra Costa County, storm drains flow untreated directly to local creeks, San Francisco Bay, and the Delta. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. This pollution includes: spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze and paint products that people pour or spill into a street or storm drain. Chemicals are the number one water pollutant.

Eighteen cities, the County, and the County Flood Control District have joined together to educate local residents and businesses to fight storm drain pollution. We hope you will join us by using the practices described in this pamphlet.

Who should use this brochure?

Painters
Paperhangers
Plasterers
General Contractors
Floor Cover Installers
Dry Wall Crews
Developers
Graphic Artists
Home Builders

What Can You Do?

Keep all liquid paint products and wastes away from the gutter, street and storm drains. Liquid residues from paints, thinners, solvents, glues, and cleaning fluids are hazardous wastes. When they are thoroughly dry, empty paint cans, spent brushes, rags, and drop cloths may be disposed of as trash.

Paint Removal

- Chemical paint stripping residue is a hazardous waste. For information on the proper disposal of hazardous waste, call 1-800 NO DUMPING.
- Chips and dust from marine paints or paints containing lead or tributyl tin are hazardous wastes. Dry sweep and dispose of appropriately.
- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up and disposed of as trash.
- When stripping or cleaning building exteriors with high-pressure water, block storm drains. Direct wash water onto a dirt area.

Painting Cleanup

- Never clean brushes or rinse paint containers into a street, gutter storm drain or stream.
- For water-based paints, paint out brushes to the extent possible, filter and reuse thinners and solvents. Dispose of excess liquids and residue as hazardous waste.

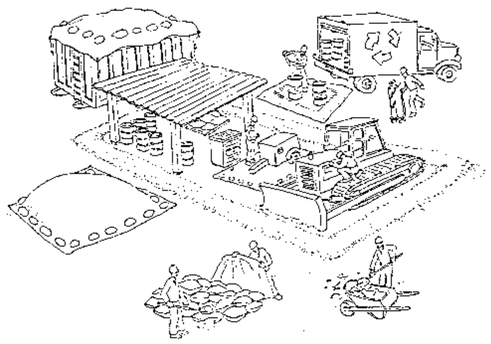
Storm Drain Pollution from paints, solvents, and adhesives

All paints, solvents, and adhesives contain chemicals that are harmful to the wildlife in our creeks and bay. Toxic chemicals may come from liquid or solid products or from cleaning residues or rags. It is especially important not to clean brushes in an area where paint residue can flow to a gutter, street or storm drain.

Recycle/reuse leftover paints whenever possible.

- Recycle excess water-based paint, or use up. Dispose of excess liquid, including sludges, as hazardous waste.
- Reuse leftover oil-based paint. Dispose of excess liquid, including sludges, as hazardous waste.

Pollution Prevention — It's Part of the Plan



Make sure your crews and subs do the job right!

Runoff from streets and other paved areas is a major source of pollution in San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep dirt, debris, and other construction waste away from storm drains and local creeks. Following these guidelines will ensure your compliance with local ordinance requirements.

Materials storage & spill cleanup

Non-hazardous materials management

- ✔ Sand, dirt, and similar materials must be stored at least 10 feet from catch basins, and covered with a tarp during wet weather or when rain is forecast.
- ✔ Use (but don't overuse) reclaimed water for dust control as needed.
- ✔ Sweep streets and other paved areas daily. Do not wash down streets or work areas with water!
- ✔ Recycle all asphalt, concrete, and aggregate base material from demolition activities.
- ✔ Check dumpsters regularly for leaks and to make sure they don't overflow. Repair or replace leaking dumpsters promptly.

Hazardous materials management

- ✔ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, state, and federal regulations.
- ✔ Store hazardous materials and wastes in secondary containment and cover them during wet weather.
- ✔ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ✔ Be sure to arrange for appropriate disposal of all hazardous wastes.

Spill prevention and control

- ✔ Keep a stockpile of spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times.
- ✔ When spills or leaks occur, contain them immediately and be particularly careful to prevent leaks and spills from reaching the gutter, street, or storm drain. Never wash spilled material into a gutter, street, storm drain, or creek!
- ✔ Report any hazardous materials spills immediately! Dial 911 or your local emergency response number.

Vehicle and equipment maintenance & cleaning

- ✔ Inspect vehicles and equipment for leaks frequently. Use drip pans to catch leaks until repairs are made; repair leaks promptly.
- ✔ Fuel and maintain vehicles on site only in a bermed area or over a drip pan that is big enough to prevent runoff.
- ✔ If you must clean vehicles or equipment on site, clean with water only in a bermed area that will not allow rinsewater to run into gutters, streets, storm drains, or creeks.
- ✔ Do not clean vehicles or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc.

Earthwork & contaminated soils

- ✔ Keep excavated soil on the site where it is least likely to collect in the street. Transfer to dump trucks should take place on the site, not in the street.
- ✔ Use hay bales, silt fences, or other control measures to minimize the flow of silt off the site.

- ✔ Avoid scheduling earth moving activities during the rainy season if possible. If grading activities during wet weather are allowed in your permit, be sure to implement all control measures necessary to prevent erosion.
- ✔ Mature vegetation is the best form of erosion control. Minimize disturbance to existing vegetation whenever possible.
- ✔ If you disturb a slope during construction, prevent erosion by securing the soil with erosion control fabric, or seed with fast-growing grasses as soon as possible. Place hay bales down-slope until soil is secure.
- ✔ If you suspect contamination (from site history, discoloration, odor, texture, abandoned underground tanks or pipes, or buried debris), call your local fire department for help in determining what testing should be done.
- ✔ Manage disposal of contaminated soil according to Fire Department instructions.

Dewatering operations

- ✔ Reuse water for dust control, irrigation, or another on-site purpose to the greatest extent possible.
- ✔ Be sure to call your city's storm drain inspector before discharging water to a street, gutter, or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ✔ In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the city inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

Saw cutting

- ✔ Always completely cover or barricade storm drain inlets when saw cutting. Use filter fabric, hay bales, sand bags, or fine gravel dams to keep slurry out of the storm drain system.
- ✔ Shovel, absorb, or vacuum saw-cut slurry and pick up all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ✔ If saw cut slurry enters a catch basin, clean it up immediately.

Paving/asphalt work

- ✔ Do not pave during wet weather or when rain is forecast.
- ✔ Always cover storm drain inlets and manholes when paving or applying seal coat, tack coat, slurry seal, or fog seal.
- ✔ Place drip pans or absorbent material under paving equipment when not in use.
- ✔ Protect gutters, ditches, and drainage courses with hay bales, sand bags, or earthen berms.
- ✔ Do not sweep or wash down excess sand from sand sealing into gutters, storm drains, or creeks. Collect sand and return it to the stockpile, or dispose of it as trash.
- ✔ Do not use water to wash down fresh asphalt concrete pavement.

Concrete, grout, and mortar storage & waste disposal

- ✔ Be sure to store concrete, grout, and mortar under cover and away from drainage areas. These materials must never reach a storm drain.
- ✔ Wash out concrete equipment/trucks off-site or designate an on-site area for washing where water will flow onto dirt or into a temporary pit in a dirt area. Let the water seep into the soil and dispose of hardened concrete with trash.

- ✔ Divert water from washing exposed aggregate concrete to a dirt area where it will not run into a gutter, street, or storm drain.
- ✔ If a suitable dirt area is not available, collect the wash water and remove it for appropriate disposal off site.

Painting

- ✔ Never rinse paint brushes or materials in a gutter or street!
- ✔ Paint out excess water-based paint before rinsing brushes, rollers, or containers in a sink. If you can't use a sink, direct wash water to a dirt area and spade it in.
- ✔ Paint out excess oil-based paint before cleaning brushes in thinner.
- ✔ Filter paint thinners and solvents for reuse whenever possible. Dispose of oil-based paint sludge and unusable thinner as hazardous waste.

B A S M A A Bay Area Stormwater Management Agencies Association

Bay Area Stormwater Management Agencies Association (BASMAA)

1-888-BAYWISE

Storm drain polluters may be liable for fines of up to $10,000 per day!

APPENDIX C

RECYCLING/WASTE MANAGEMENT

Green Halo Account Creation Instructions

CLICK TO START

SELECT FOR FREE ACCESS

CLICK TO ADVANCE

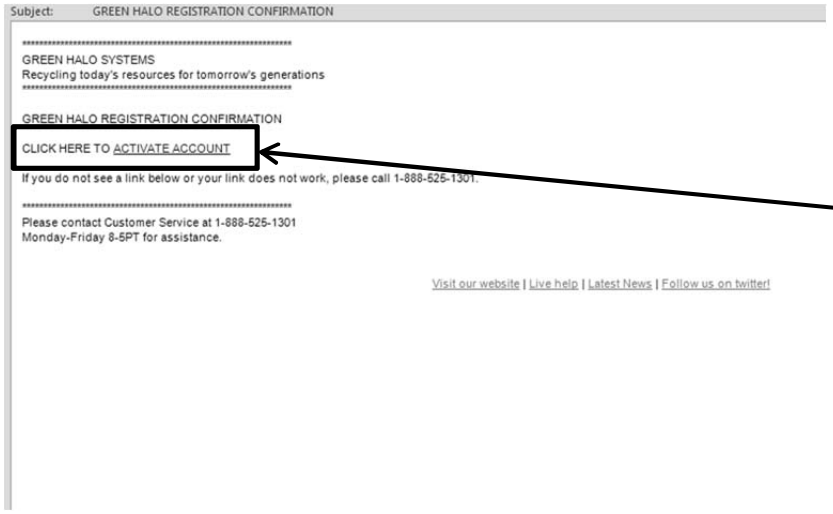
FILL-IN TO CREATE USER PROFILE

CLICK TO ADVANCE

VERIFY INFO IS CORRECT

CLICK TO ADVANCE

CHECK E-MAIL IN-BOX FOR AUTOMATED E-MAIL TO FINISH ACCOUNT ACTIVATION

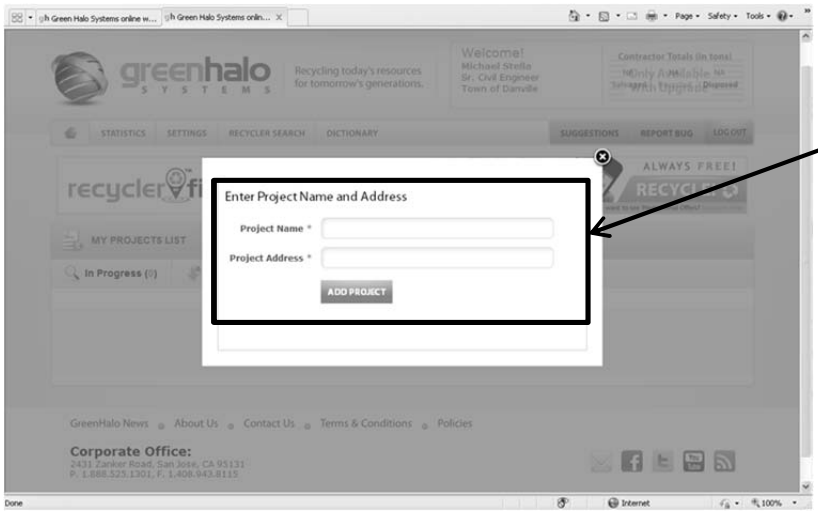


CLICK TO ACTIVATE

User Login
Email
Your Email
Password
LOGIN
Remember my log in
forgot password
TYPE-IN E-MAIL AND PASSWORD TO LOG-IN

Congratulations on activating your account!
Start Using Green Halo Now!
CLICK TO START

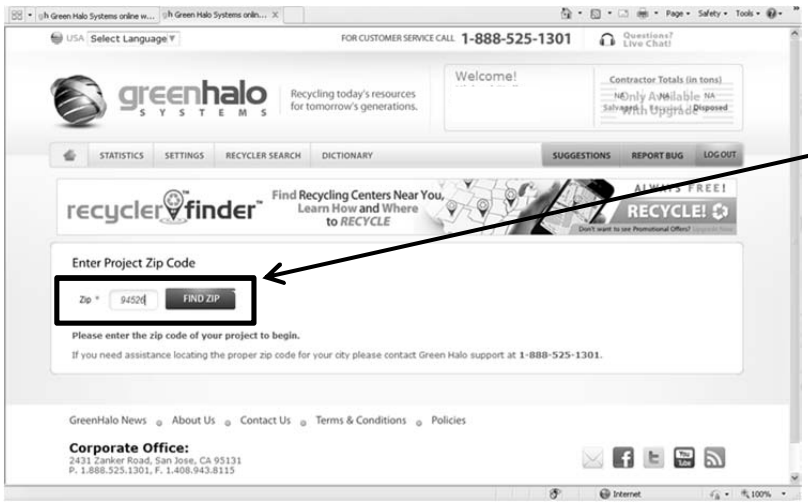
MY PROJECTS LIST
ADD ANOTHER PROJECT
No Projects.
CLICK TO ADD PROJECT



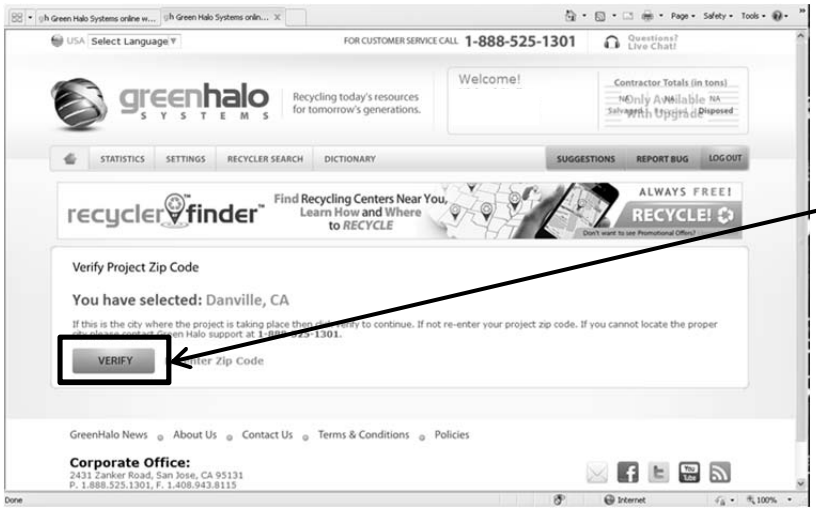
TYPE-IN PROJECT NAME AND ADDRESS. USE "CITY-WIDE" IF PROJECT HAS MULTIPLE LOCATIONS.

CLICK "OK"

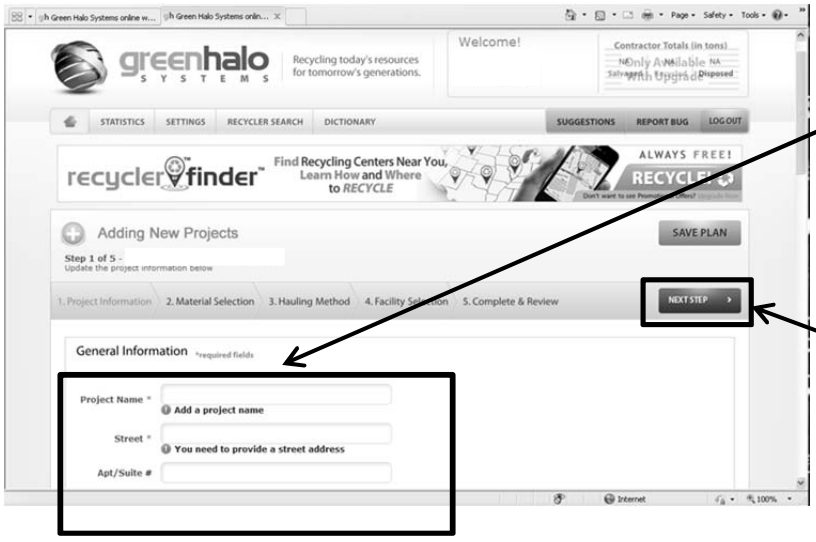
CLICK "START HERE"



CLICK "94526" FOR DANVILLE, CALIFORNIA



CLICK "VERIFY"



BEGIN TYPING IN PROJECT-SPECIFIC INFORMATION. THIS IS THE FIRST OF A FIVE STEP PROCESS.

CLICK TO ADVANCE TO THE NEXT STEP

APPENDIX D

NEW PUBLIC WORKS CONTRACTOR REGISTRATION LAW (SB 854) FACT SHEET

NEW PUBLIC WORKS CONTRACTOR REGISTRATION LAW (SB 854) FACT SHEET

FACT SHEET

SB 854, a budget trailer bill that was signed into law on June 20, 2014, and became effective immediately, made several significant changes to laws pertaining to the administration and enforcement of prevailing wage requirements by the Department of Industrial Relations (DIR). Among other things, SB 854 established a new public works contractor registration program to replace prior Compliance Monitoring Unit (CMU) and Labor Compliance Program (LCP) requirements for bond-funded and other specified public works projects. The fees collected through this new program will be used to fund all of DIR's public works activities, including compliance monitoring and enforcement, the determination of prevailing wage rates, public works coverage determinations, and hearing enforcement appeals.

Essentials of public works contractor registration program:

- Contractors will be subject to a registration and annual renewal fee that has been set initially at $300. The fee is non-refundable and applies to all contractors and subcontractors who intend to bid or perform work on public works projects (as defined under the Labor Code).
- Contractors will apply and pay the fee online and must meet minimum qualifications to be registered as eligible to bid and work on public works projects:
    - Must have workers' compensation coverage for any employees and only use subcontractors who are registered public works contractors.
    - Must have Contractors State License Board license if applicable to trade.
    - Must have no delinquent unpaid wage or penalty assessments owed to any employee or enforcement agency.
    - Must not be under federal or state debarment.
    - Must not be in prior violation of this registration requirement once it becomes effective. However, for the first violation in a 12 month period, a contractor may still qualify for registration by paying an additional penalty.

- The registration fee is not related to any project. It is more like a license that enables the registrant to bid on and perform public works.
- DIR will post a list of registered contractors and subcontractors on its website so that awarding bodies and contractors will be able to comply with requirements to only use registered contractors and subcontractors.
- Various protections are built in so that
    - A contractor won't be in violation for working on a private job that is later determined to be public work;
    - The inadvertent listing of an unregistered subcontractor on a bid won't necessarily invalidate that bid;
    - A contract with an unregistered contractor or subcontractor is subject to cancellation but is not void as to past work;
    - An unregistered contractor or subcontractor can be replaced with one who is registered;
    - A contractor whose registration lapses will have a 90 day grace period within which to pay a late fee and renew.
- Registrations will begin after July 1, 2014, once the registration system is ready to go online. The preferred method of payment will be by credit card.
- The requirement to list only registered contractors and subcontractors on bids becomes effective on March 1, 2015. The requirement to only use registered contractors and subcontractors on public works projects applies to all projects awarded on or after April 1, 2015.

<u>Essentials of Public Works Enforcement Fund</u>:

All contractor registration fees will go into the State Public Works Enforcement Fund and be used to fund the following items --

- administration of contractor registration requirement
- all DIR costs for administering and enforcing public works laws
- Labor Commissioner's enforcement of other Labor Code violations on monitored public works projects.

DIR will no longer charge awarding bodies for prevailing wage compliance monitoring and enforcement by the CMU. (*Note: DIR will continue to bill and collect fees from awarding agencies for CMU services provided through June 20, 2014.*)

Related changes in DIR's administration and enforcement of public works requirements:

- Requirements to use CMU or specified alternative (labor compliance program or project labor agreement) for state bond-funded and other specified projects have been eliminated and replaced by requirements that apply to all public works projects (as defined under the Labor Code).
- Awarding bodies are *now* required to submit PWC-100 (contract award notice) for all public works projects. (*This requirement previously applied to about 90% of all projects.*)
- Contractors and subcontractors on *all* public works projects will be required to submit certified payroll records (CPRs) to the Labor Commissioner unless excused from this requirement.
    - This requirement will be phased in as follows:
        - Applies immediately to public works projects that have already been under CMU monitoring, *i.e.* contractors on ongoing projects that have been submitting CPRs to the CMU will continue doing so
        - Will apply to any new projects awarded on or after April 1, 2015
        - May apply to other projects as determined by Labor Commissioner
        - Will apply to all public works projects, new or ongoing, on and after January 1, 2016
    - The Labor Commissioner may make exception to this requirement for
        - Projects covered by qualifying project labor agreement
        - Projects undertaken by one of four remaining awarding bodies with legacy LCPs (Caltrans, City of Los Angeles, County of Sacramento, and Los Angeles Unified School District), so long as those LCPs remain approved by DIR
    - CPRs will be furnished online (as is done currently for CMU). DIR intends to continue making improvements to this process, including creating a means for general contractors to have online access to the CPRs submitted by their subcontractors.
- Requirements for awarding bodies to adopt and enforce a DIR-approved LCP are now limited to: (1) public works projects awarded prior to January 1, 2012 that were under a preexisting LCP requirement; and (2) projects funded in whole or in part by Proposition 84.

APPENDIX E

PROJECT STREAM ALTERATION AGEEMENT – CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
BAY DELTA REGION
2825 CORDELIA ROAD, SUITE 100
FAIRFIELD, CA 94534

STREAMBED ALTERATION AGREEMENT

EPIMS-CCA-30250-R3
Green Valley Creek

Town of Danville
DIABLO ROAD TRAIL PROJECT

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and the Town of Danville (Permittee).

RECITALS

WHEREAS, pursuant to Fish and Game Code section 1602, Permittee notified CDFW on March 14, 2022, that Permittee intends to complete the project described herein.

WHEREAS, pursuant to Fish and Game Code section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The project is located at Green Valley Creek tributary to East Branch Green Valley Creek, in the Town of Danville, County of Contra Costa, State of California; terminus (Latitude 37.835821, Longitude -121.971803) to terminus (Latitude 37.831682, Longitude -121.956150). See Exhibit A – Project Location Map.

PROJECT DESCRIPTION

The project is limited to the following activities: installation of a pedestrian and bicycle trail and stabilization of a section of East Branch Green Valley Creek bank, and installation of retaining walls. The project is associated with construction of a pedestrian and bicycle roadway crossing at the intersection of Diablo Road in the vicinity of Fairway Drive. This crossing will include: crosswalk striping and pavement markings; regulatory, warning and guide signage; at-grade asphalt concrete ADA ramps (landings) with truncated domes at existing and proposed trailheads; High-Intensity Activated

Crosswalk System (HAWK); advanced warning beacon system; and associated electrical infrastructure. The project impacts are demonstrated in Exhibit B.

Trail

A mixed-use pedestrian and cyclist path will be installed that will connect the Diablo Road/Green Valley Road corridor to the west with Blackhawk Road/Mt. Diablo State Park to the east. The total width of proposed path will be 12 feet (8 feet wide with 2-foot shoulders) in most locations, but width will narrow in constrained locations. The trail will be an asphalt trail installed over aggregate base, with gravel shoulders. Guard rails, fencing, and retaining walls would be constructed where the trail is constrained either by existing physical or topographic features, property lines, and easement boundaries.

Slope Stabilization

Retaining walls will be installed to stabilize slopes and protect Diablo Road along the eastern bank of East Branch Gren Valley Creak. Retaining walls would be constructed on cast-in-place piers that are drilled to approximately 25-foot depth, concrete barrier, block walls, or similar type of mechanically stabilized earth. Most retaining walls would be less than three feet tall, though in a few locations local topography would require the construction of walls up to eight feet in height.

Construction Methods

Removal of vegetation and approximately 34 trees will be needed to construct the trail. Approximately nine native coast live oaks, six native valley oaks, and ten non-native eucalyptuses inches would be additionally removed. Some of the trees in the trail alignment have already been removed under Emergency Notification EPIMS-CCA-41460-R3 but will be mitigated for under this Agreement at the specified ratios in Measure 3.3, Tree Replacement Planting.

Access to the construction site will occur from Diablo Road and adjacent roads. Staging will primarily occur within the proposed trail alignment. Staging areas outside of the proposed alignment would typically consist of previously disturbed areas with bare, gravel, or paved surfaces.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include:

Scientific Name	Common Name	Status
Amphibians		
Ambystoma californiense	California tiger salamander	ST, FT
Rana draytonii	California red-legged frog	SSC, FT

Multiple species	Native amphibians	
Birds		
Aquila chrysaetos	Golden eagle	FP
Multiple species	Native birds	
Mammals		
Vulpes macrotis mutica	San Joaquin kit fox	ST, FE
Antrozous pallidus	Pallid bat	SSC
Corynorhinus townsendii	Townsend's big-eared bat	SSC
Multiple species	Native mammals	
Reptiles		
Masticophis lateralis euryxanthus	Alameda whipsnake	ST, FT
Actinemys marmorata	Western pond turtle	SSC
Multiple species	Native reptiles	
Plants		
Healianthella castanea	Diablo helianthella	1B.2
Multiple species	Native vegetation	
Other Biological Resources		
Mixed riparian oak woodland habitat		
Stream bed, banks, and channel		
Water quality		
Notes: State listing under the California Endangered Species Act (CESA): SE = state endangered; SCE = state candidate for listing as endangered; ST = state threatened; SCT = state candidate for listing as threatened; FP = state fully protected; SSC = state species of special concern; SR = state rare.		

California Native Plant Society (CNPS) ranking system: 1B = plants rare, threatened, or endangered in California and elsewhere; 2B = plants rare, threatened or endangered in California, but common elsewhere. Threat ranks: 0.1 = seriously threatened in California; 0.2 = moderately threatened in California. Federal listing under the Federal Endangered Species Act (FESA): FE = federally endangered; FT = federally threatened; FC = federal candidate species.

The adverse effects the project could have on the fish or wildlife resources identified above include:

- Temporary loss of bank stability during construction;
- Permanent addition of impermeable surfaces;
- Alteration of existing drainage patterns of the site in a manner increases onsite and offsite erosion;
- Deposition of sediment and/or other debris into the channel;
- Loss or degradation of in-stream habitats as a result of erosion, runoff, sediment and/or concrete leachate;
- Loss of species refugia and foraging habitat;
- Disruption to nesting birds and other wildlife;
- Short-term release of contaminants;
- Permanent restriction of creek's hydrologic and fluvial dynamics.
- Capture and impingement of terrestrial organisms;
- Removal of approximately 34 trees;
- Approximately 0.033 acre of permanent impacts to bed, bank, or channel;
- Approximately 0.387 acres of permanent impacts to mixed riparian woodland.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.

1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all

persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.

1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.

1.4 Consistency with Notification. All work shall be completed in accordance with the plans, figures, designs/plans, and project description, and other supporting materials submitted with the project Notification, unless the project has been modified through mutual agreement between CDFW and the Permittee. If the Permittee wishes to modify the project described in this Agreement, CDFW shall first be notified in writing, and the Permittee shall not implement the proposed changes until CDFW has provided a written response to the submitted changes. Modifications to the project description may require an Amendment to this Agreement.

1.5 Project Site Entry. Permittee agrees that CDFW personnel may enter the project site at any time to verify compliance with the Agreement.

1.6 Access to Property Not Owned by Permittee. This Agreement does not grant the Permittee authority to enter, use, or otherwise encroach upon the property rights of individuals, or organizations not party to this Agreement. The Permittee shall obtain written authorization from outside parties, in accordance with applicable laws, if access to property not owned by the Permittee is necessary.

1.7 Final Design Plans. Permittee shall submit final 100% engineering design plans, stamped, and signed by a qualified licensed professional engineer, to CDFW for review and acceptance, no later than **60 working days** prior to initiating project activities under this Agreement. Once accepted, these designs shall be attached as Exhibit C to this Agreement and fully incorporated herein by reference. An amendment to this Agreement shall be required if changes in project designs relative to the preliminary plans submitted as part of the Notification occur. Permittee shall also submit the licensed professional's confirmation that the project will result in a long-term hydrologically stable condition pursuant to Measure 2.9.

1.8 Notification of Work Commencement/Completion to CDFW. Permittee shall notify CDFW at least **7 days** prior to the initiation of project activities and within **24 hours** of the completion of project activities. Initial notification shall include the name(s) and contact information of the person(s) overseeing the project site, as well as a project schedule that includes the start date, estimate end date, weekly workdays, and hours of operation. Permittee shall notify CDFW by emailing the CDFW staff person listed in the Contact Information Section of this Agreement.

1.9 Unauthorized Take. This Agreement does not authorize the take, including incidental take, of any State or Federal listed threatened or endangered species, or of species that are otherwise protected under Fish and Game Code. State Listed

or Fully Protected Species includes any native plant species listed as rare under the Native Plant Protection Act (Fish and Game Code, § 1900 et seq.; Cal. Code Regs., tit. 14, § 670.2); any species that is listed or is a candidate for listing under the California Endangered Species Act (Fish and Game Code, § 2080 et seq.; Cal. Code Regs., tit. 14, §§ 670.2, 670.5); or any fully protected species (Fish and Game Code, §§ 3511, 4700, 5050, 5515). Permittee may be required, as prescribed in the California and U.S. Endangered Species Acts, to obtain take coverage for State and federally listed species prior to commencement of the project. Any unauthorized take of listed species may result in prosecution and nullification of this Agreement.

1.10 Post Construction Walkthrough. Permittee shall contact CDFW within **10 days** of project completion to arrange for a post construction walkthrough of the project site to ensure the project has been constructed as designed and that erosion control measures, and remediation efforts have been implemented. Permittee shall act immediately upon CDFW staff request to address concerns discovered during the walkthrough within a mutually agreed upon time period.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

2.1 Seasonal Work Period. To minimize adverse impacts to fish and wildlife and their habitats, project activities within the stream, stream banks, and riparian corridor shall be limited from **June 15** to **October 15**. Tree removal down to the stump shall be performed between **March 1** through **April 15** and **September 1** through **October 15**. Installation of erosion control devices and site remediation activities are excluded from seasonal work period restrictions.

2.2 Daily Work Window. Permittee shall terminate all project activities covered under this Agreement **30 minutes** before sunset and shall not resume until **30 minutes** after sunrise. Permittee shall use sunrise and sunset times established by the U.S. Naval Observatory Astronomical Applications Department for the geographic area, found at: https://aa.usno.navy.mil/data/index.

2.3 Work Limit – Precipitation. Work within the creek and associated riparian corridor shall be restricted to periods of dry weather. Precipitation forecasts and potential increases of creek flow shall be considered when planning project activities. No work shall occur during a precipitation event (i.e., 0.25-inches or more within a 24-hour period). Project activities shall cease, all equipment and materials shall be removed from the channel, and all appropriate erosion control measures shall be in place at least **12 hours** prior to the onset of precipitation. Project activities halted due to precipitation may resume when precipitation ceases, the National Weather Service 72-hour weather forecast indicates a 30% or less chance of precipitation, and after a dry-out period of **48 hours** has elapsed following the precipitation event's conclusion. The National Weather Service forecast can be found at: National Weather Service.

Concrete

2.4 Work Limit - Concrete Work. All concrete applications or concrete structures or asphalt shall be finished being poured by **September 15**, with the following exceptions. Permittee shall notify CDFW by September 1, if concrete work is expected to extend beyond September 15. Concrete related work shall not continue past the close of the authorized work period without written approval from CDFW.

2.4.1 If concrete is pre-cast, it shall be fully cured before in-water installation and maybe installed July 1 to October 30.

2.4.2 Permittee uses a non-toxic sealant or curing agent designed for use in aquatic environments to shorten concrete curing period. Prior to use, Permittee shall submit the product Material Safety Data Sheet (MSDS), which shall include information about aquatic toxicity, to CDFW for review and written approval. If a sealant is to be applied, concrete structures shall be allowed to cure for at least seven (7) days prior to application and for an additional three (3) days following application of the sealant before being exposed to waters of the State.

2.5 Concrete– Primary Containment. The Permittee shall install the necessary containment structures to control the placement of wet concrete and to prevent it from entering into the channel outside of those structures. If at any time during concrete installation it is observed or suspected that concrete has entered subsurface flows and is being washed downstream, project activities shall immediately halt and CDFW notified to determine next steps for containment and cleanup. No concrete shall be poured below top of bank if the 15-day weather forecast indicates any chance of rain greater than 30%, unless CDFW has provided prior written approval.

2.6 Monitoring During Concrete Activities. The Qualified Biologist shall be present at all times during project related activities when the Permittee is pouring or working with wet concrete to inspect the containment structures and ensure that no concrete or other debris enters into the channel outside of those structures.

2.7 Concrete Washout. Concrete washout shall occur in a designated and appropriately prepared area setback at least 100-feet from the riparian area. Wash-water and debris shall not be allowed to enter the stream or riparian area. Concrete washout facilities should be inspected daily and after rains to check for leaks, identify any plastic linings and sidewalls that have been damaged by project activities, and determine whether they have been filled to over 75% capacity. When the washout container is filled to over 75% of its capacity, the wash-water should be siphoned off and properly disposed of off-site or allowed to evaporate to avoid overflows.

2.8 Containment of Concrete Leachate. Containment of concrete leachate shall adhere to the following best management practices:

2.8.1 Unsealed structures shall be allowed to cure (dry) for at least 28 days before rain or other water sources are introduced.

2.8.2 Concrete curing compounds shall not be used where water or storm water runoff could wash them into waters of the State.

2.8.3 Washdown water from concrete delivery trucks, concrete pumping equipment, and other tools and equipment shall not be allowed to enter any waterway and should be removed from the site for treatment following work. No dry concrete shall be placed on the banks or in a location where it may pass into the stream or contaminate soil by wind or runoff.

2.8.4 To prevent wash-down during precipitation events, Permittee shall cover all curing concrete with polyethylene or other suitable hydrophobic material so that rainfall will not splash or wash-down pH-altered water into waters of the State.

2.8.5 A non-toxic substance that can buffer the pH shall be available on site to use if any water contamination occurs.

Erosion and Sediment Control

2.9 Fluvial Geomorphology and Sediment Transport. Permittee shall have a licensed engineering hydrologist or fluvial geomorphologist (licensed professional) ensure that features placed within or adjacent to the stream, (i.e., hardscape or bioengineered features) do not transfer the erosive force of waters to the opposite or downstream banks or cause the formation of downstream eddies. The stream channel shall not be narrowed as a result of placement of engineered features and features that modify the gradient, as measured on a longitudinal profile, shall not be installed as part of the project. Permittee shall submit the licensed professional's confirmation that the project will result in a long-term hydrologically stable condition with the final 100% design plans.

2.10 Stormwater Management Plan. Project shall incorporate stormwater treatment control measures, in accordance with the Stormwater Control Plan for Diablo Road Trail attached to this Agreement as Exhibit D (prepared by Jonathan Buck, ENGEO Incorporated, dated September 2024), to collect and treat stormwater runoff from the trail before discharging it into the Green Valley Creek.

2.11 Erosion Control Plan. Permittee shall provide to CDFW a comprehensive Erosion Control Plan prepared by a licensed erosion control specialist at least **60 days** prior to commencement of any project related activities. The Erosion Control Plan shall include, at minimum, the following: 1) description of materials, methods and timing being proposed; 2) map project site that clearly depicting areas on which erosion control will be installed, access routes, and staging areas, excavation areas; and limits of grading; 3) if hydroseeding is proposed, a list of species which will be used. The Erosion Control Plan shall be attached to this Agreement as Exhibit E and incorporated entirely herein by this reference.

2.12 Erosion Control Implementation. All exposed soils within the work area shall be stabilized immediately following the completion of earthmoving activities, during project activities, or prior to rain events to prevent erosion into the stream and its tributary. Erosion control measures, such as silt fences, straw wattles, gravel- or rock-lined ditches, water check bars, and broadcasted straw, or other appropriate materials, shall be used. Erosion control measures shall be monitored during and after each storm event for effectiveness. Modifications, repairs, and improvements to erosion control measures shall be made whenever needed to protect water quality. At no time shall sediment-laden runoff be allowed to enter the channel or directed to where it may enter the channel.

2.13 Erosion Control Material Limitation. To minimize the risk of ensnaring snakes and other wildlife, Permittee shall not use erosion control materials containing synthetic (e.g., plastic or nylon) monofilament netting or cross joints in the netting that are bound/stitched. Geotextiles, fiber rolls, and other erosion control measures shall be made of loose-weave mesh, such as coconut (coir) fiber, or other products without welded or tight weaves. Erosion control blankets shall be used as a last resort because of their tendency to biodegrade slowly and trap reptiles and amphibians.

2.14 Geotextile Fabric Restriction. Permittee shall not use any petroleum-based geotextile fabrics of any variety for permanent use in the project (e.g., underneath hydraulic dissipation features such as rock riprap). Temporary use of geo-textile fabrics for the purposes of exclusion or silt fencing is permissible under the condition they are to be removed immediately after the cessation of project activities.

2.15 Location of Spoil Sites. Spoils piles shall be placed a minimum of 150 linear feet away from streams, ponds, drainages, or swales, and placed away from concentrated ground squirrel burrows or sensitive plant species stands within the project site. Spoils piles shall be placed on already disturbed or ruderal habitats where feasible. If vegetated areas are impacted by placement of spoils piles, these areas will be included in the site remediation to be completed post-construction.

2.16 Excavated Fill. Excavated fill material shall be placed in upland locations where it cannot be delivered to a watercourse. To minimize the potential for material to enter the watercourse during the winter period, all excavated and relocated fill material shall be tractor contoured (to drain water) and tractor compacted to effectively incorporate and stabilize loose material into existing features.

2.17 Runoff from Steep Areas. The Permittee shall ensure runoff from steep, erodible surfaces will be diverted into stable areas with little erosion potential or contained behind erosion control structures. Erosion control structures such as straw bales and/or siltation control fencing shall be placed and maintained until the threat of erosion ceases. Frequent water checks shall be placed on dirt roads, cat tracks, or other work trails to control erosion.

2.18 Cover Spoil Piles. Permittee shall have readily available natural fiber filter fabric or burlap to cover exposed spoil piles and exposed areas in order to prevent loose soil from moving into the stream channel and/or sensitive habitats. Spoil piles shall

be covered in advance of winds exceeding 7 miles per hour or rainy conditions that threaten to erode loose soils into sensitive habitats.

2.19 No New Project Phase without Erosion Control. Installation of erosion control devices shall be performed under the direction of a qualified or certified erosion control specialist. No phase of the project may be started if that phase and its associated erosion control measures cannot be completed prior to the onset of a precipitation event if that construction phase may cause the introduction of sediments into a stream. Erosion control measures shall be inspected frequently to minimize failure and conduct any necessary repairs. All non-structural related and non-biodegradable erosion control measures shall be removed from the project site upon cessation of construction activities.

2.20 Precipitation Event Inspection. After any precipitation event, Permittee shall inspect all sites scheduled to begin or continue construction within the next **72 hours** for indications of bank erosion and/or channel sedimentation and effectiveness of erosion control measures. Corrective action for erosion and sedimentation shall be taken whenever needed, including but not limited to repairing erosion control or exclusion fencing. If noticeable erosion or sedimentation has occurred, Permittee shall implement additional erosion control features and consult with CDFW Bay Delta Region regarding corrective actions.

Toxic and Hazardous Materials

2.21 Vehicle/Equipment Maintenance. Prior to the entry of any vehicle or equipment into the project area, including the staging site, it shall be washed and cleaned of all biological material at an off-site facility. Any equipment or vehicles driven and/or operated in proximity of the stream shall be maintained in good working order to prevent the release of contaminants that if introduced to water could be deleterious to aquatic life, wildlife, or riparian habitat.

2.22 Use of Drip Pans. Stationary equipment such as motors, pumps, generators, compressors, and welders, shall be positioned over drip-pans. Any mobile equipment or vehicles driven and/or operated in proximity to the stream shall be checked for leaks daily, and maintained, if necessary. Vehicles or equipment parked for extended periods at the site shall also be positioned over drip pans, which will be checked regularly. If a vehicle is found to be leaking fluids of any kind, it shall be removed from the project area immediately and not returned until appropriate repairs have been made.

2.23 Emergency Spill Response Plan. An emergency response plan shall be prepared and submitted to CDFW prior to the start of project work. The plan shall be limited to no more than three (3) pages in length and may be presented in flowchart, table, or bulleted list format. The plan shall identify the actions which would be taken in the event of a spill of concrete, petroleum products, sediment, or other material harmful to fish, wildlife, plant resources, or the habitats thereof. The plan shall also identify the emergency response materials which shall be kept at the site to allow the rapid containment and clean-up of any spilled material. The emergency response plan shall also be submitted in the Project Completion Report.

2.24 Spill Containment and Spill Kits. All activities performed in or near State waters shall have absorbent materials designated for hazardous materials spill containment and cleanup activities on-site for use in an accidental spill. Permittee shall immediately initiate the cleanup activities in the event of a hazardous materials spill. Prior to entering the work site, all field personnel shall know the location of spill kits and trained in their appropriate use.

2.25 Storage and Handling of Hazardous Materials. Any hazardous or toxic materials that could be deleterious to aquatic life shall be contained in watertight containers or removed from the project site. Such materials include, but are not limited to, debris soil, silt, bark, rubbish, creosote-treated wood, raw cement/concrete, or washings thereof, asphalt, paint or other coating material, and oil or other petroleum products. These materials shall be prevented from contaminating the soil and/or entering the waters of the State. Any such materials, placed within or where they may enter a stream or lake, by Permittee or any party working under contract, or with permission of Permittee, shall be removed immediately.

2.26 Spill of Material Deleterious to Fish, Wildlife and Plants. Permittee and all contractors shall be subject to the water pollution regulations found in FGC Sections 5650 and 12015. In the event of a hazardous materials spill into the stream (e.g., grout, epoxy, etc.), Permittee shall immediately notify the California Office of Emergency Services State Warning Center by calling 1-800-852-7550 and immediately provide written notification to CDFW by email to AskBDR@wildlife.ca.gov. Permittee shall take all reasonable measures to document the extent of the impacts and affected areas, including photographic documentation of affected areas, and injured fish and wildlife. If dead fish or wildlife are found in the affected area, Permittee shall collect carcasses and immediately deliver them to CDFW. Permittee shall meet with CDFW within **10 days** of the reported spill in order to develop a resolution including: site clean-up, site remediation, and compensatory mitigation for the harm caused to fish, wildlife, and the habitats on which they depend as a result of the spill. Permittee shall be responsible for all spill clean-up, site remediation, and compensatory mitigation costs. Spill of materials to waters of the State that are deleterious to fish and wildlife are in violation of Fish and Game Code Section 5650 et seq. and are subject to civil penalties for each person responsible. CDFW reserves the right to refer the matter to the District Attorney's Office if a resolution cannot be agreed upon and achieved within a specified timeframe, generally six (6) months from the date of the incident.

Bank Stabilization

2.27 Post-Construction Excavation Backfill. After construction is complete, all excavation areas shall be backfilled with the native, excavated spoils and restored to pre-project contours.

2.28 Acceptable Practices. shall be placed in a smooth curve along the natural bank alignment, shall not project out into the channel beyond the limits of the natural bank, and shall not include any "barbs" or "groins", or other features which will

deflect flow against the opposite bank, or cause the formation of downstream eddies. Any other bank stabilization method is subject to CDFW review and written acceptance.

2.29 Gravels Used as Fill Material. No broken concrete, asphalt, or other construction waste materials shall be used for bank stabilization or fill materials. Only clean, screened gravels or clean round river cobble may be used as fill material along the banks of the stream or placed within the stream channel to increase gravel spawning beds. All silt laden gravels from the project area upon completion of the project.

2.30 Maintenance of Stream Encroachment and Bank Stability. The Permittee shall assure that the bank stabilization is maintained according to the final design plans and provide site maintenance for the life of any structure constructed by project activities. The Permittee, and/or their successors and assigns, shall be responsible for such maintenance as long as the structure remains in the stream. This includes, but is not limited to, re-applying erosion control, and ensuring streambanks are sufficiently stable. If the bank stabilization degrades or fails such that it does not stabilize the bank as designed or the stabilization causes bank stabilization in areas upstream or downstream from the project site, the Permittee shall contact CDFW to discuss remediation. A new Notification may be required for work necessary to remediate damage resulting from any such degradation or failure.

Habitat and Stream Protection Measures

2.31 No Work Within Wetted Channel. No project activities shall occur within the channel if water is present. All work shall be conducted when the stream is dry. Dewatering and flow bypass is not authorized under this Agreement.

2.32 No Equipment in Water. No equipment shall be operated from within a wetted channel or flowing stream at any time.

2.33 Access to Project Site. Access to the in-channel locations for project activities shall be via existing roads and roadside features. Permittee shall not construct any new permanent or temporary access roads.

2.34 Staging Areas. Staging areas shall be located in a dry upland location, above the top of bank, and a minimum of 100 linear feet from streams or drainage features. Staging areas shall be within a paved or gravel-lined site, if feasible, or in areas of permanent impact Vegetation disturbance shall be limited to the immediate work footprint and limited to as few access pathways as necessary to complete the project.

2.35 Natural Material Removal Restrictions. Except as explicitly described in the Project Description section of this Agreement, the removal of native soils, rock, gravel, vegetation, and vegetative debris from the stream bed or stream banks is prohibited. Embedded pieces of large woody material (LWM) or stumps that potentially serve as basking sites or that encourage pool formation shall be left in place. LWM defined as fallen trees, logs, and branches that are at least four (4)

inches in diameter and six (6) feet in length. Permittee shall only modify or remove large woody material (LWM) from streams when the accumulation of LWM poses a threat to: (1) road stability, bridges, culverts, or other in-stream structures; (2) structures such as homes; (3) project sites with a significant increase in flooding risk that would impact previously described structures; and (4) project sites with an increase in erosion risk to property and increase sediment load. Permittee shall only cut or modify the minimum amount of stream wood to reduce the hazard as directed by a hydrologist or fluvial geomorphologist. LWM shall only be removed when such threats cannot be addressed by modifications as determined by engineering and environmental staff. If an embedded object must be removed to prevent a debris jam, the Permittee shall submit a request and obtain CDFW's written approval to remove embedded objects at the identified location.

2.36 Habitat Protection. No native riparian vegetation shall be removed, except where authorized by CDFW, as shown in Project Impact Map (Exhibit B). Permittee shall limit the disturbance or removal of native vegetation to the minimum necessary to achieve design guidelines and standards for the authorized activity. Permittee shall take precautions to avoid damage to vegetation outside the work area by people or equipment. Vegetation outside the construction corridor shall not be removed or damaged without prior consultation and approval of CDFW.

2.37 Tree Modification Plan. The Permittee shall submit a Tree Modification Plan to CDFW at least **60 days** prior to project commencement. Once approved, the Tree Modification Plan shall be attached as Exhibit F to the Agreement and its provisions incorporated by reference. The Tree Modification Plan shall include: i) a description of the trees to be removed and trimmed, the number of trees to be removed, the number of trees to be trimmed, and the species of each tree, the size (in DBH) of each tree, the estimated height of each tree, and the relative health of each tree; ii) a description of the trees to remain in place; iii) the final Arborist Report with descriptions of tree health and critical root zone; and iv) a site plan showing the location of all the trees to be removed or trimmed, clearly labeling the trees that will be retained or removed, as well as the trees already removed under Emergency Notification CCA-41460.

2.38 Protection of Riparian Trees. Permittee shall take precautions to avoid people or equipment causing unintended damage to trees and woody vegetation.

2.38.1 Project activities shall not compact (i.e., drive over, place, stage or operate equipment on, pave over, etc.) the roots of native tree species. The design of the trail alignment shall avoid the critical root zone of native tree species, as determined by the tree protection recommendations of the final Arborist Report. For each tree with greater than four (4) inches in DBH located within or adjacent to the project site that will remain, a critical root zone shall be established. The critical root zone shall extend from the trunk to the dripline (i.e., the outer extent of the tree canopy) of each tree within the project site and shall be flagged or fenced off from work. Protection and avoidance of critical root zones shall be made a point of discussion during the onsite education program to avoid impact. No work shall be conducted

within the critical root zone of any trees unless explicitly authorized in writing by CDFW.

2.38.2 Prior to initiating project activities, all trees within the project site and in the vicinity will be clearly and conspicuously marked or flagged for removal, trimming, and/or protection. A Qualified Biologist shall oversee tree identification and demarcation, application of tree protective measures, and monitoring unintended tree damage.

2.38.3 Protective measures to protect trees from unintended damage may include placement of exclusion fencing at the tree dripline, wrapping trunks with burlap, and/or creating a scaffold buffer of scrap timber around the trunks.

2.38.4 Trees that will remain in place but are impacted (trimmed, compacted critical root zones, unintentionally damaged, etc.) during project activities shall be monitored for signs of reduced health (wilting, shedding of leaves or bark, limb death, etc.) or mortality according to Measure 3.2.4. If trees that will remain in place experience reduced health or mortality from unintended damage, then compensatory replacement replanting in accordance with Measure 3.2 shall be required.

2.39 Trimming of Oak Tree Species. Oak species shall only be trimmed under the direct supervision of a certified arborist, who shall employ all reasonable measures to prevent oak mortality from shock, disease, or infection. Oaks shall only be trimmed during the oak species' dormant period. Oak trimming shall not be performed when precipitation events are forecasted. No more than 20% of an individual oak's canopy shall be trimmed.

2.40 Tree Removal and Limbing Methodology. Tree removal shall adhere to the following requirements:

2.40.1 Tree removal or limbing shall only occur between **March 1** through **April 15** and **September 1** through **October 15** to avoid the seasonal periods of bat activity (maternity/roosting and hibernation).

2.40.2 Trees shall be removed over the course of two days, using the following methodology. On the first day, in the late afternoon, under the direct supervision and instruction by a Qualified Biologist, limbs and branches shall be removed by a tree cutter using chainsaws only. On the second day the rest of the tree shall be removed to the stump, as late in the afternoon as feasible.

2.40.3 Tree limbing or removal shall not be performed under any of the following conditions: during any precipitation events, when ambient temperatures are below 4.5 degrees Celsius, when windspeeds exceed 11 miles per hour, and/or any other condition which may lead to bats seeking refuge.

2.41 Invasive Plant Species. Permittee shall not plant, seed or otherwise introduce invasive plant species within the project area. Invasive plant species include those

identified in the California Invasive Plant Council's inventory database, which is accessible at: https://www.cal-ipc.org/plants/inventory/.

2.42 Temporary Flagging, Fencing, and Barriers. Permittee shall remove all temporary flagging, fencing, and/or barriers from the project site and vicinity of the stream upon completion of project-related activities.

2.43 Temporary and Permanent Lighting. All temporary lighting shall be fully hooded (i.e., no lateral lighting). Any illumination shall be directed to the ground and away from the stream. No permanent lighting features shall be installed either within the mixed riparian woodland or stream bank habitats nor shall lighting be installed that illuminates these habitats as part of the project.

2.44 Removal of Trash and Debris. Permittee shall remove all raw construction materials and wastes from the project site following the completion of work. Food-contaminated wastes generated during work shall be removed on a daily basis to avoid attracting predators to work sites. All temporary fences, barriers, and/or flagging shall be completely removed from work sites and properly disposed of upon completion of work. Permittee or its contractors shall not dump any litter or construction debris within the riparian/stream zone.

2.45 Water Pollution. Permittee and all contractors shall be subject to the water pollution regulations found in FGC Sections 5650.

Biological Monitoring

2.46 Qualified Biologist(s). At least **30 days** prior to initiating biological surveys within the project areas, Permittee shall submit the names and resumes of all biological personnel involved in conducting survey and/or monitoring work to CDFW for review and written approval. The Permittee shall obtain CDFW's written approval of biological personnel prior to the commencement of project activities and preconstruction surveys. Resumes shall include, at minimum: educational background, description of experience with each focal species (e.g., auditory surveys, observational surveys, handling, relocation, monitoring, etc.), including number of hours/seasons/years of experience per species, trainings/workshops attended, and certificates or related credentials. Include experience with different life stages of a species when applicable. To expedite the review period of biological personnel assigned to the project, Permittee may elect to complete the Biologist Resume Form (see Exhibit G) to accompany the provided resumes. Biological personnel are defined under this Agreement as follows:

2.46.1 A Qualified Biologist is an individual who shall have a minimum of five (5) years of academic training and professional experience in biological sciences and related resource management activities with a minimum of two (2) years conducting surveys for each special status species potentially present within the project area.

2.46.2 A Biological Monitor is an individual who shall have a minimum of four (4) years of academic and professional experience in biological sciences and related resource management activities relevant to this project, has

experience with construction level biological monitoring, the ability to recognize species and special status species in the project area, and who is familiar with the habits, habitats, and behavior of those species and special status species potentially present in the project area.

2.47 On-Site Monitoring Requirements. The Qualified Biologist shall be present at the project site during: pre-construction surveys, establishment of ESAs, and installation of wildlife exclusion fencing; administration of the onsite worker education program; all initial ground disturbance activities such as clearing, grubbing, excavation, and grading within 50 feet of any channel; backfilling of excavated areas; vegetation disturbance activities; tree limbing and removal; fencing installation and removal; nest/roost monitoring; hand excavation of potential WPT nesting sites; all species relocations; and concrete pouring within 100 linear feet of the channel centerline.

A Biological Monitor shall be on-site for the remainder of project activities when the Qualified Biologist is not required onsite.

2.48 Onsite Worker Education Program. Permittee shall administer a pre-construction training program for all employees, contractors, and personnel working at the project site prior to performing any project activities (referred to collectively as "workers"). The program shall consist of an in-person presentation from the Qualified Biologist hosted at the project location. The presentation shall include, at minimum, a discussion of the biology of the habitats and species identified in this Agreement and those with potential to be present at the project site, which shall include a walkthrough. The Qualified Biologist shall also include, as part of the education program, information about the distribution and habitat needs of any species that may be potentially present, legal protections for those species, penalties for violations, and project-specific protective measures included in this Agreement. Interpretation shall be provided for non-English speaking employees, contractors, or personnel otherwise working on the project site, prior to their performing any work at the project site.

Upon completion of the education program, all workers shall be able to recognize potentially present species and their habitats and implement protective measures to ensure that species are not adversely impacted by project activities. Workers shall sign a form stating they attended the program and understand all protection measures, the sign-in sheet shall be submitted to CDFW with the Project Completion Report. A handout that summarizes the education program including images of special status species shall also be distributed to all personnel working on the project. These forms and the training shall be filed at the worksite offices and be available to CDFW upon request.

2.49 General Cease Operations Authority. The Qualified Biologist or Biological Monitor shall have independent authority to stop all project activities if any special-status species enters the project area, if project activities pose imminent threat to wildlife and/or plant resources, or if project activities are out of compliance with the measures outlined in this Agreement.

2.50 Violation Reporting. If the Permittee, Qualified Biologist, or Biological Monitor witnesses a potential violation of this Agreement, they shall contact CDFW immediately. Permittee shall not enter into non-disclosure agreements with biological personnel or otherwise implement penalties or disincentives restricting direct communication with CDFW. Failure to consult immediately with CDFW on potential violations shall constitute grounds for CDFW to revoke the biological personnel's monitoring authority and require Permittee to stop work until other biological personnel have been approved.

2.51 Notification of Injury or Mortality. If any wildlife species are found dead or injured during project-related actions, including during relocation activities, all project related activities in the area shall be immediately suspended and the CDFW Bay Delta Region notified by email and telephone within **60 minutes** of discovery. The Qualified Biologist(s) or Biological Monitor(s) shall have the authority and responsibility to communicate directly to CDFW, without having to report first to the Permittee. Any injured California native species, both special-status or non-listed, shall be immediately transported to a CDFW-approved wildlife rehabilitation clinic, which can be found here: https://wildlife.ca.gov/Conservation/Laboratories/Wildlife-Health/Rehab. If the animal found injured or deceased is Rare, Threatened or Endangered pursuant to the CESA, project activities shall not resume until the Permittee can demonstrate compliance with CESA to CDFW's satisfaction. Following the incident, the Qualified Biologist shall submit a written report detailing the circumstances under which the dead or injured animal was found to CDFW no later than **48 hours** after the instance, referencing Notification Number EPIMS-CCA-30250-R3. The report shall include information regarding the location, date and time of the finding or incident, species, and number of animals injured or killed, and if possible, provide a photograph, explanation as to the cause of injury or mortality, and any other pertinent information. Following initial notification, Permittee shall attach the report as an addendum to the Monthly Monitoring and Compliance Report (see Measure 4.2) for the month in which the mortality event was documented.

Wildlife Protection Measures

2.52 California Red-Legged Frog (CRLF). Qualified Biologist shall submit a CRLF MMP for CDFW review and written approval at least **60 days** prior to initiating project activities. The CRLF MMP shall include: i) an assessment of all project impacts to CRLF, including noise/vibratory disturbance during construction; ii) disturbance to nesting sites; iii) list of effective avoidance and minimization measures to protect all life stages of CRLF; iv) and compensatory mitigation for permanent impacts to CRLF or potential habitat. Once approved, the MMP shall be incorporated as part of this Agreement in its entirety as Exhibit H.

2.53 Western Pond Turtle (WPT). The Qualified Biologist shall conduct a reconnaissance-level survey for WPT individuals and WPT potential nesting habitat 60 days prior to commencement of project activities of the calendar year that project activities shall begin. Potential nesting habitat (i.e., upland loose soils, sands, sediment bars, grassy areas, or duff) within 1,500 feet of a waterway where

breeding or hibernation may occur. Terrestrial habitat includes basking sites (e.g., rocks or large woody debris, and emergent instream features). If WPT are absent from the project site(s), immediately following the survey the Permittee shall install CDFW-approved wildlife exclusionary fencing to prevent WPT from entering the work areas.

The Qualified Biologist shall then conduct follow-up reconnaissance-level survey for WPT individuals and WPT potential nesting habitat within the **48 hours** prior to initiating project activities. If WPT individuals or potential WPT nesting habitats are discovered on-site, the following conditions shall apply:

2.53.1 The Qualified Biologist shall oversee the hand excavation of potential nesting sites that may be affected by the project.

2.53.2 If eggs, individuals, or hatchlings are discovered, the disturbed area will be returned to its previous state and all project activities shall immediately cease. Permittee shall immediately contact CDFW and receive written guidance before resuming project activities.

2.53.3 The Qualified Biologist may capture the individual and relocate it to a nearby refugium with suitable WPT habitat immediately downstream of the project, or it shall be allowed to leave the project site of its own volition. WPT shall not be moved out of their watershed of origin. Capture methods may include hand and dip net. All WPT handled by the Qualified Biologist shall be inspected for signs of fungal and/or bacterial shell disease. If the Qualified Biologist determines or suspects WPT individuals are exhibiting signs of fungal and/or bacterial shell disease, said individuals shall not be moved, but instead quarantined and immediately reported to CDFW for further guidance.

2.54 Bats. The Qualified Biologist shall conduct extensive daytime and evening emergence visual surveys for bats and for potential roosting habitat (which includes culverts, bridges, etc.) at least **60 days** prior to the commencement of project activities. Bat surveys shall include a visual inspection of potential roosting features (e.g., cavities, crevices in wood and bark, exfoliating bark for colonial species, suitable canopy for foliage roosting species, culvert crevices, etc.) of the work and within 50 feet of the project area. Habitat features found during the survey(s) shall be flagged or otherwise clearly marked. Permittee shall not attempt to directly disturb (e.g., shake, prod) potential roosting features. If bat individuals or colonies are observed, the Qualified Biologist shall identify the species, estimate quantity present, roost type (day, night, maternity, etc.), and roost status, in a manner that avoids disturbance. Maternal bat colonies shall not be disturbed while young are present and dependent on the roost. The Qualified Biologist shall submit a Bat MMP for CDFW review and written approval at least **45 days** prior to initiating project activities. The Bat Avoidance and Monitoring Plan shall include: (i) an assessment of all project impacts to bats, including noise disturbance during construction; (ii) effective avoidance and minimization measures to protect bats;

(iii) compensatory mitigation for permanent impacts to roosts, if impacted. Project activities may not commence until CDFW written approval has been provided to Permittee. Once approved, the MMP shall be incorporated as part of this Agreement in its entirety as Exhibit H.

2.55 Nesting Bird Surveys. The Permittee is responsible for ensuring that the project does not result in any violation of Fish and Game Code Sections 3503, 3503.5, and 3513. If project activities will occur during nesting bird season (February 15 to September 15), the Qualified Biologist shall conduct a reconnaissance-level survey for active nests within the **14 days** prior to the initiation of project-related activities. Surveys shall be conducted in all potential habitat located at, and adjacent to, project work sites and in staging and storage areas. The minimum survey radii surrounding the work area shall be the following: 250 feet for non-raptors, and 1,000 feet for raptors. Survey methodology shall be submitted into CDFW for approval at least **14 days** prior to the initiation of surveys. Survey results shall be submitted to CDFW in the Pre-construction Report. If a lapse in project-related activities of **seven (7) days** or longer occurs, another focused survey will be required before project activities can be reinitiated. If an active nest is found, Permittee shall consult with CDFW regarding appropriate action to comply with the Fish and Game Code of California. CDFW reserves the right to provide additional provisions to this Agreement designed to protect nesting birds, in the event nesting birds are discovered.

2.55.1 Active Nests. The Qualified Biologist shall observe any identified active nests (including seasonally used nests of migratory raptors) prior to the start of any construction-related activities to establish a behavioral baseline of the adults and any nestlings. Once work commences, all active nests should be continuously monitored for a minimum of three consecutive workdays by the Qualified Biologist to detect any signs of disturbance and behavioral changes as a result of project activities. In addition to direct impacts, such as nest destruction, nesting birds might be affected by noise, vibration, odors and movement of workers or equipment. After the Qualified Biologist has determined that the nesting birds are attenuated to construction presence, the nest may be monitored by a Biological Monitor, provided there are no changes in site conditions (e.g., project activities, equipment used or noise levels) relative to the Qualified Biologist's observation period. If signs of disturbance and behavioral changes are observed at any time, the biological personnel responsible shall cease work causing that behavioral change and shall contact the CDFW staff person listed in the Contact Information Section of this Agreement for guidance.

2.55.2 Active Nest Buffers. Active nest sites and protective buffer zones shall be designated as "Environmentally Sensitive Areas" where no project-related activities or personnel may enter until the Qualified Biologist determines that the young have *fully fledged* and will no longer be adversely affected by the project. These designated areas shall be protected during project

activities by surrounding the nest site with a wildlife-safe fence or flagging barrier. The Qualified Biologist shall determine the necessary buffer distance to protect nesting birds based on existing site conditions (such as construction activity and line of sight). Buffer distance shall be increased to provide sufficient protection of nesting birds and their natural behaviors, as needed.

2.56 Environmentally Sensitive Area (ESAs) Delineations. Prior to project activities, the Qualified Biologist(s) shall designate and demarcate ESAs. ESAs shall be clearly demarcated and shall be installed under the supervision of the Qualified Biologist(s). The Permittee shall stake, flag, fence, or otherwise conspicuously delineate all ESAs within the project work areas that are to be protected in place and remain undisturbed during construction. Environmentally sensitive areas are defined as wetland, riparian areas, aquatic areas, nesting/roosting locations, potential burrows, or dens, etc. The materials used to delineate ESAs and work boundaries will be removed no later than 30 days following completion of construction.

2.57 Temporary Exclusion Fence Plan. At least **60 days** prior to the initiation of project activities, the Permittee shall submit to CDFW for written approval, plans for an exclusion fencing system and access routes. Once approved, the Exclusion Fencing Plan shall be attached to this Agreement as Exhibit I and incorporated entirely herein by this reference. The Exclusion Fencing Plan shall include a map indicating location of exclusion fencing in relation to the project work areas, location of sensitive wildlife habitat features, dimension specifications, and a description of fencing materials. Permittee shall be responsible for implementation and upkeep of the fencing system. In addition, the following criteria for the exclusion fencing system shall be met:

2.57.1 The exclusion fencing shall consist of material appropriate for exclusion of wildlife as listed in this Agreement.

2.57.2 The exclusion fencing shall either measure at least 36 inches tall above the soil surface or be of an appropriate height for exclusion of wildlife that could inhabit the project area.

2.57.3 The Qualified Biologist or Biological Monitor shall inspect the fencing immediately following every rain event to ensure it maintains structural integrity. Holes or burrows which appear to extend under the fencing will be blocked inside the fence line to prevent wildlife from accessing work areas.

2.57.4 The bottom of the exclusion fencing shall not allow wildlife to pass through gaps or holes with the bottom of the fencing buried six (6) inches below grade.

2.57.5 The exclusion fencing shall be taut between the supporting stakes and shall have the supporting stakes oriented on the inside edge so that

wildlife cannot use the stakes to enter the excluded area.

2.57.6 The exclusion fencing shall feature coverboards inside and outside the perimeter placed at 100-foot intervals and one-way escape doors or an appropriate design for preventing wildlife from being trapped in an area that is under active construction.

2.57.7 If fencing becomes damaged, it will be immediately repaired upon detection and the Qualified Biologist shall stop work in the vicinity of the fencing as needed to ensure that no wildlife has entered the construction area.

2.57.8 Fencing system entry/exit points for vehicular and pedestrian traffic shall be constructed so wildlife cannot access the area under active construction during non-work hours.

2.57.9 The Qualified Biologist shall inspect the project area prior to installation of the exclusion fencing. The exclusion fencing system shall remain in place until all construction activities have been completed. All components of the exclusion fencing will be removed for storage or disposal off-site immediately upon completion of construction activities. If any vegetation is slated for removal in the exclusion fencing buffer area, it shall be inspected by a Qualified Biologist prior to the initiation of removal. Exclusion fencing shall be inspected daily by the Qualified Biologist or Biological Monitor and repaired as necessary, including inspection of coverboards and replacement of wetted sponges as necessary to minimize wildlife distress.

2.58 Halt Work to Identify Species. If a frog, snake, turtle, or salamander of any species is observed during any point of the project, all work shall immediately halt, all equipment shall be powered off, and work shall not continue until the individual's species can be identified by the Qualified Biologist or Biological Monitor.

2.59 Harassment of Animals. No project personnel or motorized equipment shall harass, herd, or drive any wildlife. Project personnel and equipment shall not cause displacement of wildlife into roadways or open areas without cover from aerial predators.

2.60 Allow Wildlife to Leave Unharmed. Permittee shall allow any wildlife encountered during the course of project-related activities to leave the project area unharmed. If wildlife species are present, project activities nearby shall halt, and the wildlife shall be given a buffer and allowed to move out of the work area on their own volition.

2.61 Relocation of Terrestrial Wildlife Species Out of Harm's Way. If wildlife species area found onsite and does not leave the project site of its own volition, a Qualified Biologist may guide, handle, or capture to move the individual(s) to a nearby safe and species-appropriate location within nearby refugium. Capture methods may include hand net, dip net, lizard lasso, snake tongs and snake hook. If the wildlife species is discovered or is caught in any pits, ditches, or other types of excavations, the Qualified Biologist shall release it into the most suitable habitat

near the site of capture. Precautions shall be taken to avoid harm and mortality resulting from relocation activities. This Agreement does not allow for the trapping, capture, or relocation of any CESA-listed species.

2.62 Relocation of Aquatic Species Out of Harm's Way. If aquatic species (reptiles, fish, and amphibians) are found stranded within project areas, the Qualified Biologist shall immediately capture and relocate all native individuals out of harm's way to the nearest area of appropriate habitat directly downstream and outside of the project location. Capture methods may include fish landing nets, dip nets, buckets and/or hand capture. Precautions shall be taken to avoid harm and mortality resulting from relocation activities. Electrofishing is not allowed under this Agreement. This Agreement does not allow for the trapping, capture, or relocation of any CESA-listed species. Specific adherences for relocating aquatic wildlife are as follows:

2.62.1 Release Locations Criteria. Prior to capturing aquatic wildlife, the most appropriate release location(s) shall be determined, using the following criteria: (1) water temperature shall be similar as the capture location; (2) there shall be ample habitat for the captured species; (3) relocation areas must be in proximity to the capture site, contain potential habitat, and not be affected by project activities; (4) and be free of exotic predatory species (i.e., bullfrogs, crayfish, etc.) to the best of the Qualified Biologist's knowledge. In the rare case that amphibian egg masses are found after July 1, the Qualified Biologist shall make every attempt to wait until the egg masses hatch to transport them. Release locations shall be chosen so there is a low likelihood for aquatic wildlife to reenter a project site or become impinged on exclusion fencing, nets, or screens.

2.62.2 Timing of Initial Fish Relocation. If feasible, the Qualified Biologist shall perform initial fish and amphibian relocation efforts several days prior to the start of construction. This provides the Qualified Biologist an opportunity to return to the work area and perform additional relocation efforts immediately prior to construction.

2.62.3 Relocate Aquatic Wildlife in the Morning. The Qualified Biologist shall conduct aquatic wildlife relocation activities in the morning when temperatures are cooler.

2.62.4 Wet Hands and Nets. Handling of reptiles, fish, and amphibians within the project site shall be minimized. However, when handling is necessary, the Qualified Biologist shall always wet hands (i.e., free of lotions, creams, sunscreen, oils, ointment, insect repellent or any other harmful materials) or nets prior to touching fish and amphibians Proper Holding Technique. Holding containers shall be sized such that adult animals will fit without touching the sides. The Qualified Biologist shall temporarily hold fish and amphibians in cool, shaded, aerated water in a flow-through live car. The Qualified Biologist shall protect

fish and amphibians from jostling and noise and shall not remove fish from this container until time of release.

2.62.5 Proper Holding Technique. Holding containers shall be sized such that adult fish will fit without touching the sides. The Qualified Biologist shall temporarily hold aquatic wildlife in cool, shaded, aerated water in a flow-through live car or adequately sized container. The Qualified Biologist shall protect such wildlife from jostling and noise and shall not remove such aquatic wildlife from this container until time of release.

2.62.6 Seining Restrictions. Seine mesh shall be properly sized to ensure fish are not gilled during capture. There shall be a minimum number of three passes with the seine to ensure a maximum capture probability of fish within the proposed area to be dewatered.

2.62.7 No Overcrowding. Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year fish, amphibians, and reptiles from larger age-classes to avoid predation. Larger amphibians shall be placed in the container with larger fish. If fish are abundant, the capturing of fish and amphibians shall cease periodically, and they shall be released at the predetermined locations. Reptiles shall not share containers with fish and amphibians.

2.63 Relocated Wildlife Records. A record shall be maintained of all relocated wildlife. The record shall include the date of capture, the method of capture, the location of movement relation to the project site, and the number and species moved. All relocation records shall be provided to CDFW with the Monthly Monitoring and Compliance Report per Measure 4.2, as well as the Project Completion Report per Measure 4.3.

2.64 Daily Clearance Surveys. Each day, prior to initiation of project activities, the Qualified Biologist or Biological Monitor shall inspect the project work area, staging/stockpiling area and all equipment and vehicles. If the Qualified Biologist or Biological Monitor determines that sensitive species are not present within the work area, work may commence.

2.65 Clear Vegetation Prior to Removal. All trees and vegetation within the project area shall be surveyed and clear of wildlife species by the Qualified Biologist prior to removal or disturbance.

2.66 No Stockpiling of Vegetation. Vegetation removed and not used for slash shall be placed directly into a disposal vehicle and removed from the project work site. Vegetation not used for slash shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the Qualified Biologist. Vegetation used for slash shall be stockpiled if placed within a biological exclusion area and shall be transferred under the supervision of the Qualified Biologist.

2.67 Open Trenches. Any open trenches, pits, or holes with a depth larger than six (6) inches shall be covered at the conclusion of work each day with a hard, non-heat conductive material (e.g., plywood). No netting, canvas, or material capable of trapping or ensnaring wildlife shall be used to cover open trenches. If use of a hard cover is not feasible, multiple wildlife escape ramps shall be installed, constructed of wood planking, or installed as an earthen dirt fill with walls no greater than 30 degrees in slope in each open trench, hole, or pit that is capable of allowing large (e.g., deer) and small (e.g., snakes) wildlife to escape on their own accord. Prior to the initiation of construction each day and prior to the covering of the trench at the conclusion of work each day, Qualified Biologist shall inspect the open trench, pit, or hole for wildlife. If wildlife is discovered it shall be allowed to leave on its own accord, if wildlife does not leave on its own accord consultation with CDFW is required before work can be initiated.

2.68 Open Pipes Restriction. All pipes, culverts, or similar structures that are stored at the site for one (1) or more overnight periods shall be thoroughly inspected for wildlife by the Qualified Biologist prior to use at the project site. All hollow pipes or posts installed as part of the project and exposed to the environment shall be capped, screened, or filled with material by Permittee prior to the end of the workday in which the installation occurs.

2.69 Fence and Signpost Restriction. Any fencing, signposts, or vertical poles installed temporarily or permanently throughout the course of the project shall have the top capped and/or the top three (3) post holes covered or filled with screws or bolts to prevent the entrapment of wildlife.

2.70 Wildlife-friendly Fencing. All new and repaired fencing shall be designed to facilitate wildlife passage to the maximum extent practicable. Wire fencing shall have a smooth top and bottom wire. Fencing shall not be constructed of materials deleterious to wildlife (e.g., sharp edges exposed at the top or bottom of chain-link fencing, braided wire where birds may become entangled, etc.). Permittee shall not install any fencing material which may ensnare, impale, or otherwise harm wildlife species. No barbed wire, or equivalent, shall be allowed where it may result in harm to birds and other wildlife (e.g., as top-wire or bottom-wire on tiered fencing).

3. Remedial and Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

3.1 Stream Restoration Plan. To compensate for permanent impacts to 0.42 acres of stream channel and associated habitats, Permittee shall perform restoration of at least 0.84 acres (calculated as 2:1, conserved to impacted) of East Branch Green Valley Creek within and immediately adjacent to the project area. The restoration objectives shall be to: restore natural and stable hydrological and geomorphological conditions (stabilize stream gradient, improvement of sediment deposition, reduction in peak flow velocity, prevent sheet flow/runoff, etc.); reduce erosion and sedimentation (revegetation, step pool creation, etc.); and provide

ecologically complex riparian habitat, ephemeral stream habitat, and/or aquatic habitat (including retention of LWM) for fish and wildlife species identified in this Agreement. The SRP shall also include removal and/or retrofit existing structures in the channel (shotgun or deteriorating culverts, abandoned concrete structures, addition of trash capture devices, addition of stormwater dissipation features, etc.).

Permittee shall submit a Stream Restoration Plan (SRP), which details the proposed restoration narrative and drawings, to CDFW for review and written approval at least **90 days** prior to initiating project activities. Once approved, the SRP shall be incorporated as part of this Agreement in its entirety as Exhibit J. The SRP shall detail the dimensions and slopes of the existing stream channel and proposed restoration actions, describe proposed materials and methods to perform restoration activities, and demonstrate the restoration acreage. If the Permittee is unable to perform restoration within project area, Permittee shall identify and propose alternative site(s) within the same watershed as East Branch Green Valley Creek.

3.2 Tree Replacement Planting. Trees removed or otherwise impacted (i.e., unintended tree mortality or reduced health) by project activities shall be replaced with regionally appropriate, native species at the following ratios (replacement to impact):

- Oaks 4 inches to 12 inches DBH – 3:1
- Oaks 12 inches to 20 inches DBH – 5:1
- Oaks exceeding 20 inches DBH – 7:1
- Other native trees 4 inches to 20 inches DBH – 2:1
- Other native trees 20 inches DBH or greater – 3:1
- Non-native trees 4 inches to 20 inches DBH – 1:1
- Non-native trees 20 inches DBH or greater – 2:1

The Permittee shall submit a Tree Replacement Planting Plan (TRPP) at least **60 days** prior to initiating project activities. If replanting the total amount of requirement replacement trees within the project site is unfeasible due to slope steepness or other physical constraints, replacement trees may be planted at alternative locations with CDFW's written approval. Once approved, the TRPP shall be incorporated as part of this Agreement in its entirety as Exhibit K. To ensure a successful replanting effort, replacement tree planting shall meet the following requirements:

3.2.1 Replacement Plantings. Replacement trees shall consist of 5-gallon saplings, stakes, or other suitable nursery stock and shall be native species adapted to the lighting, soil, and hydrological conditions at the replanting site. Planting of coast live oak, valley oak, buckeye, and Arroyo and/or red willow species is required. Oaks shall be replaced with oaks to the maximum extent practicable. Other native tree species known to occur

or would have potential to occur at the project site may also be incorporated, with written concurrence from CDFW.

3.2.2 Replanting Timing. Planting conducted after the first seasonal rains have saturated soils beyond the first several inches (November/December) and before April.

3.2.3 Success Criteria. Measurable success criteria based on plant survivorship rates, health, and DBH. Success criteria requires at least 80% survivorship of replanted trees at the end of five (5) years and at least 70% survivorship of replanted trees at the end of 10 years. If success criteria are not met, Permittee shall propose corrective actions that meet criteria for CDFW review and written approval and shall implement approved corrective actions until criteria are met.

3.2.4 Monitoring and Maintenance. The Permittee shall monitor the survival and health of all onsite tree, both the replantings and the trees that remained in place, for at least 10 years after planting but may extend longer until the success criteria can be met, as determined by CDFW. Monitoring shall occur semi-annually in spring and fall.

3.3 Site Remediation. Areas within the riparian zone or streambanks or channels where ground disturbance has occurred, where vegetation has been removed or impacted, and areas to be restored for the SRP shall be revegetated with native plant species consistent with the vegetative composition immediately up- and downstream of the project site(s). Revegetation shall occur prior to the onset of winter rains within the same year initial impacts commence. The native species mix shall, at minimum, consist of at least: one (1) perennial grass, one (1) annual grass, one (1) perennial forb, one (1) local milkweed (*Asclepias spp.*) species (refer to: Local Milkweed Species [CalFlora.org]). Site remediation shall also include installation of riparian understory species. To ensure a successful revegetation effort, on-site remedial plantings shall meet the requirements:

3.3.1 Baseline conditions, including absolute percentages of ground cover and shrub cover, shall be quantified by the Qualified Biologist prior to project activities. The baseline narrative and representative photographs shall be submitted with the biological surveys for the project site per Measure 4.1.

3.3.2 All plantings shall be selected and implemented to restore, at minimum, vegetative community function to baseline (i.e., relative cover percentage, composition, and species richness). If success criteria are not met, Permittee shall propose corrective actions that meet criteria for CDFW review and written approval and shall implement approved corrective actions until criteria are met. function to baseline (i.e., relative cover percentage, composition, and species richness). No application of fertilizer, herbicides, or other chemical control shall be used. Measurable success criteria based on species diversity/richness and density or cover

percentage. Success criteria requires:

3.3.2.1 Vegetation cover shall not contain invasive plant species rated as "high" by the Cal-IPC and the remediated areas shall meet or exceed baseline conditions at the end of five (5) years. Vegetation cover of extant invasive species on-site shall not be greater than an absolute value of 10% above baseline conditions.

3.3.2.2 The project area shall have at least 90% vegetative ground cover at the end of five (5) years. At least 50% of the vegetative ground cover shall be woody-stemmed understory species, such as shrubs/ bushes (California rose, blue elderberry, California grape, blueblossom ceanothus, etc.) and small trees (willows, etc.)

3.3.3 Remediated areas shall be monitored for at least five (5) years after planting and/or hydroseeding but may extend longer until the success criteria can be met. Monitoring shall occur semi-annually in spring and fall. The annual status of the remediation efforts shall be submitted to CDFW for review and concurrence with the Annual Monitoring Report per Measure 4.6.

3.4 Nursery Stock. If plants purchased for re-vegetation are hosts or associated hosts of sudden oak death (*Phytophthora ramorum*; refer to list of hosts at: (http://www.suddenoakdeath.org/diagnosis-and-management/hosts-and-symptoms) and were grown within a county that is regulated under 7 Code of Federal Regulations (CFR) 301.92, the source nursery shall be in compliance with USDA quarantine regulations. Permittee shall view, and if possible, obtain a copy of the nursery's certificate of annual inspection certifying that the plant stock is free of *Phytophthora ramorum*. If the nursery cannot provide compliance with USDA quarantine regulations pertaining to sudden oak death, the nursery shall not be used as a source for plant material, soils or other materials that could transmit the infective organism. Permittee and all contractors shall follow sanitation protocol specified in the *Sanitation Guidelines for Professional Crews* issued by the California Oak Mortality Task Force (https://www.suddenoakdeath.org/wp-content/uploads/2017/04/Professional-sanitation-guide_January-2013.pdf) prior to entering, during construction, and prior to leaving the site. If the project site is within five (5) miles of a confirmed sudden oak death infestation (refer to http://www.oakmapper.org/ or contact the Contra Costa Agricultural Commissioner's Office at: (925) 646-5250), a discussion of sudden oak death shall be included in the pre-construction training.

3.5 Mitigation Funding Security. The stream restoration and tree replanting shall be funded with a security of $158,935, held by CDFW in escrow or an irrevocable letter of credit, that adequately covers the management and maintenance of the mitigation area up until meeting all success criteria noted in the SRP, with a 15% contingency for at least five (5) years. Management and maintenance duties

calculated for the security included: irrigation, plant replacement, invasive species management, channel recontouring and grade control, onsite monitoring, annual reporting, and administrative costs associated with these activities as compared to similar riparian restoration projects in Contra Costa County. Project activities shall not commence until the Permittee has submitted the requisite amount to CDFW and CDFW has provided written approval.

3.6 Mitigation Obligation to Extend Beyond Expiration. Pursuant to Fish and Game Code 1605(a)(2) Permittee shall remain responsible for implementing any mitigation and other measures specified in the Agreement to protect fish and wildlife resources.

4. Reporting Measures

Permittee shall meet each reporting requirement described below.

4.1 Pre-construction Notification and Report. Permittee shall complete all surveys and associated pre-construction requirements under this Agreement within the listed timeframes set forth in this Agreement. At least **seven (7) days** prior to the anticipated start of project activities, the Permittee shall upload to the EPIMS data portal a comprehensive pre-construction report detailing all pre-construction survey methods and results, the vegetation baseline narrative and photographs, and all activities conducted pursuant to the avoidance and minimization requirements contained within this Agreement.

4.2 Monthly Monitoring and Compliance Reports. The Qualified Biologist or Biological Monitor shall submit a report **every month** to CDFW via the EPIMS data portal that includes the following items: 1) notification number, 2) a summarized description of whether compliance for all avoidance and minimization measures has been met, 3) recommendations to achieve compliance of any avoidance and minimization measures that have not been met, 4) fish and wildlife observed during monitoring), 5) any instances of capture and relocation of wildlife, 6) any observed mortalities of wildlife including species, location and suspected cause of death; and 7) if work was not done, or was stopped for a period of time, provide the dates of inactivity.

4.3 Project Completion Report. A Project Completion Report shall be uploaded to the EPIMS data portal within **45 days** of completion of all project-related activity. This report shall include, at minimum, the following: 1) dates that construction activities occurred; 2) pertinent information concerning the success of the project in meeting avoidance and minimization measures; 3) compensatory and conservation measures fulfilled; 4) summaries of wildlife relocations, wildlife injuries and mortalities, and special status species documented at the project site; 5) copies of any CNDDB submissions made during the course of project related activities; 6) photographs of post-construction results; and 7) the as-built designs of the completed work. An explanation of failure to meet any measures specified in this

Agreement shall also be included, if applicable. Permittee shall upload the Project Completion Report to the EPIMS data portal.

4.4 CNDDB Observations. The Qualified Biologist shall submit all observations of Covered Species to CDFW's California Natural Diversity Database (CNDDB) at https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data within **30 calendar days** of the observation and the Qualified Biologist shall include copies of the submitted forms with the Project Completion Report.

4.5 Post Construction Walkthrough. Permittee shall contact CDFW to participate in a post construction walkthrough of the project area within **seven (7) days** of project completion to ensure that: 1) the project has been constructed as designed; 2) pollution prevention devices properly installed and functioning; and 3) erosion control measures and revegetation efforts have been appropriately implemented. Permittee shall act immediately upon CDFW staff request to address concerns discovered during the walkthrough, in a timeframe identified by CDFW in its sole discretion.

4.6 Annual Monitoring Reports. Permittee, in consultation with the Qualified Biologist, shall annually compile a monitoring report summarizing the results of all mitigation, remediation, revegetation activities, and post-construction compliance requirements outlined in in this Agreement for at least 10 years following the initiation of onsite mitigation activities. The first report shall be submitted to CDFW no later than **December 31** of the year after project activities activity begins, and the subsequent **December 31** of each year thereafter. The report shall detail, at minimum: (1) survey methodology; (2) relative plant cover with context to previous surveys and reports including species lists comparing native and non-native vegetation; (3) species richness with context to previous reports; (4) descriptions of any unintended movement or shifts of project features, latent erosion, or other unforeseen movement of channel features; (5) tree health monitoring results, and unintended tree mortality or reduced health as compared to previous year's results; (6) failure and success in meeting the Compensatory Measure's compliance objectives; and (7) implemented or planned activities intended to meet compliance objectives.

CONTACT INFORMATION

Any communication that Permittee or CDFW submits to the other shall be submitted in writing through the Environmental Permit Information Management System (EPIMS) data portal or by email, as instructed by CDFW.

To Permittee:
Town of Danville
500 La Gonda Way,
Danville, CA 94506

To CDFW:
California Department of Fish and Wildlife
Bay Delta Region

2825 Cordelia Road, Suite 100, Fairfield, CA 94534
Attn: Lake and Streambed Alteration Program – Sanjay Das
Notification #EPIMS-CCA-30250-R3
Sanjay.Das@wildlife.ca.gov and/or R3LSA@wildlife.ca.gov

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

SUSPENSION AND REVOCATION

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with, or obtaining any other permits or authorizations that might be required under, other federal, state, or local laws or regulations before beginning the project or an activity related to it. For example, if the project causes take

of a species listed as threatened or endangered under the Federal Endangered Species Act (FESA), such take will be unlawful under the FESA absent a permit or other form of authorization from the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the Fish and Game Code including, but not limited to, Fish and Game Code sections 2050 *et seq.* (threatened and endangered species), section 3503 (bird nests and eggs), section 3503.5 (birds of prey), section 5650 (water pollution), section 5652 (refuse disposal into water), section 5901 (fish passage), section 5937 (sufficient water for fish), and section 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). Submit the form and fee to the CDFW regional office that serves the area where the project is located.

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). Submit the form and fee to the CDFW regional office that serves the area where the project is located.

EXTENSIONS

In accordance with Fish and Game Code section 1605, subdivision (b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with Fish and Game Code section 1605, subdivisions (b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code § 1605, subd. (f)). Submit the form and fee to the CDFW regional office that serves the area where the project is located.

EFFECTIVE DATE

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable Fish and Game Code section 711.4 filing fee listed at https://www.wildlife.ca.gov/Conservation/CEQA/Fees.

TERM

This Agreement shall expire on **December 31, 2027**, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as Fish and Game Code section 1605, subdivision (a)(2) requires.

EXHIBITS

The documents listed below are included as exhibits to the Agreement and incorporated herein by reference.

A. Exhibit A – Project Location Map

B. Exhibit B – Project Impacts Map

C. Exhibit C – [Reserved for future exhibit: Final 100% Design, pursuant to Measure 1.7]

D. Exhibit D – Stormwater Control Plan for Diablo Road Trail, prepared by Jonathan Buck, ENGEO Incorporated, dated September 05, 2024

E. Exhibit E - [Reserved for future exhibit: Erosion Control Plan, pursuant to Measure 2.11]

F. Exhibit F – [Reserved for future exhibit: Tree Modification Plan, pursuant to Measure 2.37]

G. Exhibit G – Biologist Resume Form

H. Exhibit H – [Reserved for future exhibit: CRLF and Bat Mitigation and Monitoring Plans, pursuant to Measure 2.52 and 2.54]

I. Exhibit I – [Reserved for future exhibit: Temporary Exclusion Fencing Plan, pursuant to Measure 2.57]

J. Exhibit J – [Reserved for future exhibit: Stream Restoration Plan, pursuant to Measure 3.1]

K. Exhibit K – [Reserved for future exhibit: Tree Replacement Planting Plan, pursuant to Measure 3.2]

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with Fish and Game Code section 1602.

CONCURRENCE

Through the electronic signature by the permittee or permittee's representative as evidenced by the attached concurrence from CDFW's Environmental Permit Information Management System (EPIMS), the permittee accepts and agrees to comply with all provisions contained herein.

The EPIMS concurrence page containing electronic signatures must be attached to this agreement to be valid.

APPENDIX F

PROJECT WASTE DISCHARGE REQUIREMENTS – REGIONAL WATER QUALITY CONTROL BOARD

San Francisco Bay Regional Water Quality Control Board

NOTICE OF APPLICABLITY (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

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
500 La Gonda Way
Danville, CA 94526
Phone: (925) 314-3348
Attn: Nader Salama, nsalama@danville.ca.gov

Water Board Staff:
Kathryn Hart
1515 Clay Street, Suite 1400
Oakland, CA 94612
Phone: (510) 622-2356
Email: kathryn.hart@waterboards.ca.gov

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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
DIRECT WATERS IMPACTS	• Culvert Extension at Diablo Road Culvert (10 LF, 120 SF, 26 CY) • Rock Riprap at Diablo Road Culvert (20 LF, 300 SF, 3.7 CY) • Storm Drain Outfall Rock Riprap (6 LF, 18 SF, 2 CY) • Fill Material and Walls (200 LF, 500 SF, 36 CY) Total (236 LF, 938 SF, 67.7 CY)	• Mitigation Area 1 (70 LF, 2,240 SF, 178 CY) • Mitigation Area 2 (110 LF, 4,400 SF, 180 CY) • Removal of Concrete Rubble (20 LF, 40 SF, 0.74 CY) Total (200 LF, 6,680 SF, 358.74 CY)
WALLS	Retaining Walls (420 LF, 1,319 SF)	• Biotechnical Willow Planting at Walls (250 willows) (500 LF, 3,500 SF) • Culvert Removal (8 LF, 80 SF) Total (508 LF, 3,580 SF)
TREES	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)
EXCLUSION FENCING		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. 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 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 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 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, 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. 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.govWater Board: Victor Aelion, victor.aelion@waterboards.ca.gov
CDFW:
askbdr@dfg.ca.gov
Sabrina Dunn, Dunn, Sabrina.Dunn@Wildlife.ca.gov
Sanjay Das, Sanjay.Das@Wildlife.ca.gov
Corps, SF Regulatory Branch, Agency Permits/Certification Inbox, cespn-rg-info@usace.army.mil
Town of Danville:
Steven Jones SJones@danville.ca.gov
Nader Salama, nsalama@danville.ca.gov
Diane Friedmann DFriedmann@danville.ca.gov
Sequoia, Julie Woodruff, jwoodruff@sequoiaeco.com
Engeo Inc., Jonathan Buck, 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

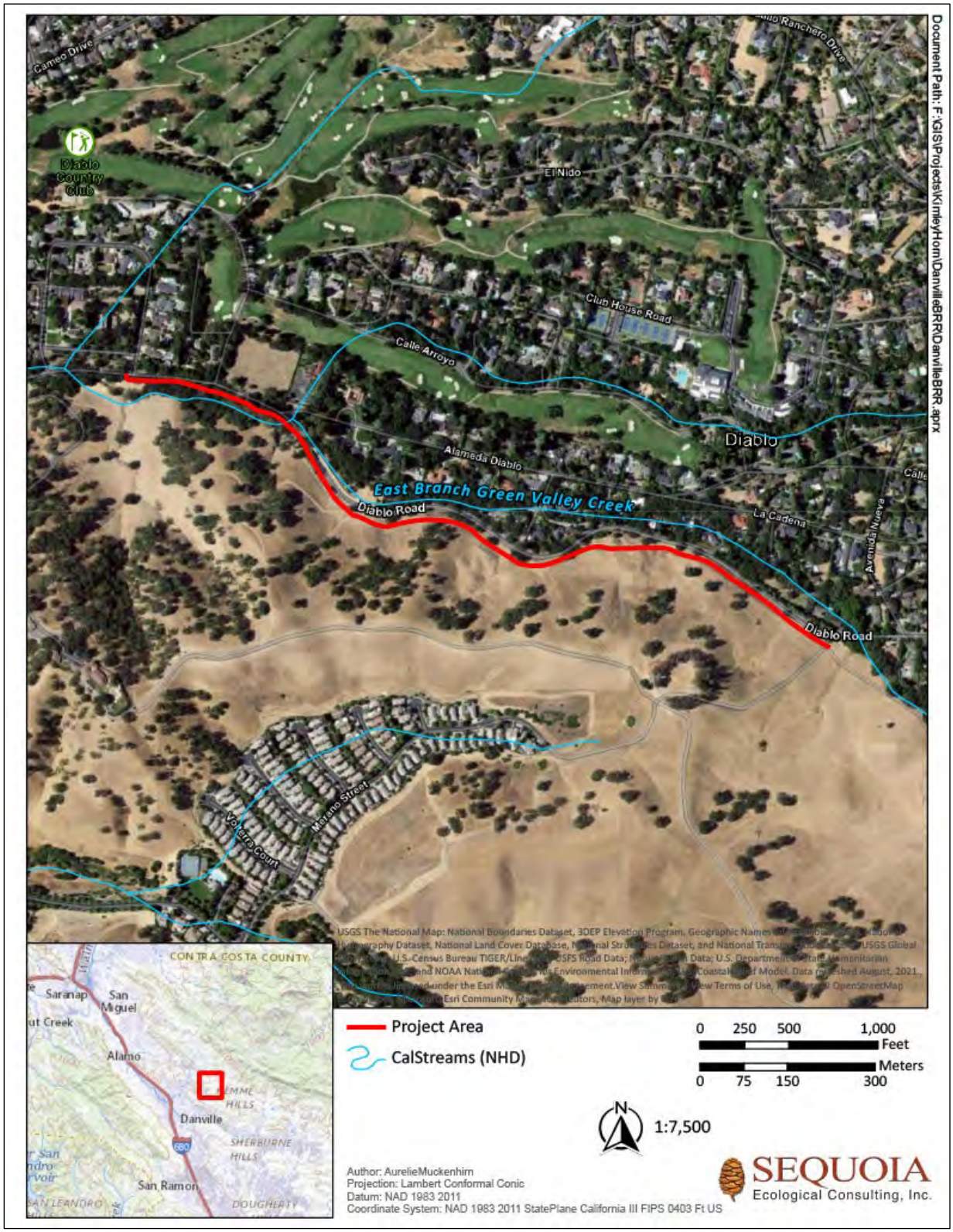

Figure 2. Diablo Road Trail Project Setting

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N

Mitigation Area 1
178 CY
70 LF

Remove Existing 36 inch
Culverts and Plug Pipes

New Storm Drain Outfall
9 SF Impact

Bioretention Basin

Storm Drain Collection System to Collect
and Treat Stormwater from Diablo Road

Remove Existing
Concrete Rubble.
Approximately 40 SF

Intensive Willow Planting
2 Feet on Center 200 LF

New Storm Drain Outfall
at Ordinary High Water
Mark 9 SF Impact

Bioretention Basin

Intensive Willow Planting
3 Feet on Center 500 LF

Alameda Diablo
Road Culvert

Mitigation Area 2
180 CY
110 LF

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

0 80
FEET

BASE MAP SOURCE: GUIDA SURVEYING INC., 2023

ENGEO
Expect Excellence

STREAM RESTORATION PLAN
DIABLO ROAD TRAIL
DANVILLE, CALIFORNIA

PROJECT NO.: 8870.000.011		FIGURE NO. 1
SCALE: AS SHOWN		
DRAWN BY: CC	CHECKED BY: JB	

FILE PATH: G:\Drafting\DRAFTING2_Dwg\8870\000\8870000011 Diablo Rd Trail Plans\8870000011-Diablo Trail Plans\Creek-Enhancement-plans\8870000011-STREAM-RESTORATION-PLAN-1-082924.dwg SAVE DATE: 8/29/2024 11:07:14 AM SAVED BY: CCulbertson

ORIGINAL FIGURE PRINTED IN COLOR

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

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

0 80
FEET

BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE

ENGEO Expect Excellence

POST DEVELOPMENT DMAs
DIABLO ROAD PEDESTRIAN TRAIL - STORMWATER CONTROL PLAN
TOWN OF DANVILLE, CALIFORNIA

PROJECT NO.: 8870.000.011
SCALE: AS SHOWN
DRAWN BY: LL
CHECKED BY: JB

FIGURE NO. 2

ORIGINAL FIGURE PRINTED IN COLOR

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N

MATCHLINE A-A (SEE SHEET 2)

Alameda Diablo Road

Diablo Road

Self-Retaining Area 1

DMA 3 - Drains to
Self-Retaining Area 1

Self-Retaining Area 2

Self-Retaining Area 3

DMA 4 - Drains to
Self-Retaining Area 2

DMA 5 - Drains to
Self-Retaining Area 3

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
		Total Mitigated Impervious Surface	**36,667**			

N

80 40 0 80

SCALE IN FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

DMA 3

DMA 4

DMA 5

Trail Impervious Surface
Offset by Offsite Mitigation

0 80
FEET

BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE

ENGEO Expect Excellence

POST DEVELOPMENT DMAs
DIABLO ROAD PEDESTRIAN TRAIL - STORMWATER CONTROL PLAN
TOWN OF DANVILLE, CALIFORNIA

PROJECT NO.: 8870.000.011
SCALE: AS SHOWN
DRAWN BY: LL
CHECKED BY: JB

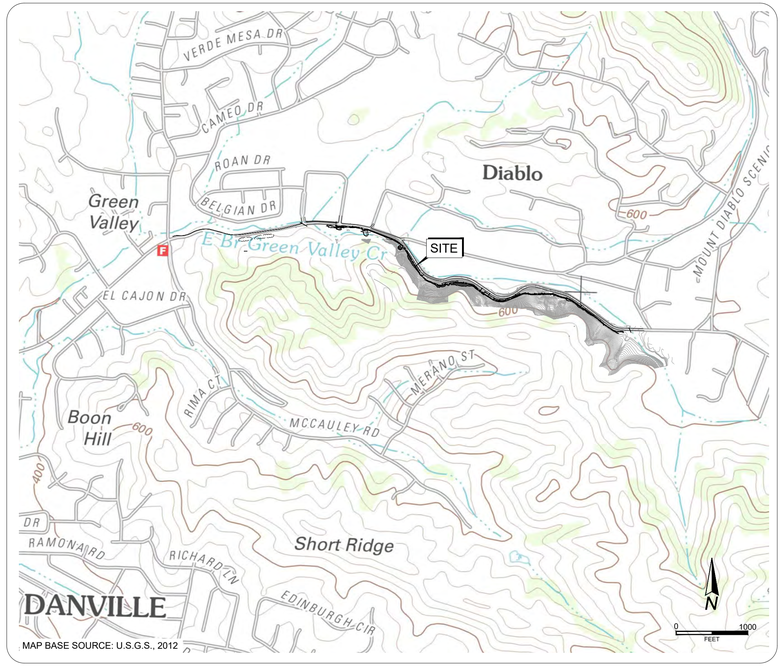
FIGURE NO. 3

ORIGINAL FIGURE PRINTED IN COLOR

TOWN OF DANVILLE

CONTRA COSTA COUNTY, CALIFORNIA

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL



MAP BASE SOURCE: U.S.G.S., 2012

VICINITY MAP

SITE PLAN

SHEET INDEX

SHEET NUMBER	TITLE
1	COVER SHEET
2	NOTES, LEGEND, & ABBREVIATIONS
3	PLAN AND PROFILE (STA: 0+00 - 5+00)
4	PLAN AND PROFILE (STA: 5+00 - 10+50)
5	PLAN AND PROFILE (STA: 10+50 - 15+50)
6	PLAN AND PROFILE (STA: 15+50 - 22+00)
7	PLAN AND PROFILE (STA: 22+00 - 28+00)
8	PLAN AND PROFILE (STA: 28+00 - 34+00)
9	PLAN AND PROFILE (STA: 34+00 - 40+00)
10	PLAN AND PROFILE (STA: 40+00 - 45+50)
11	EMBANKMENT 1 CROSS SECTIONS
12	EMBANKMENT 2 CROSS SECTIONS
13	EMBANKMENT 3 CROSS SECTIONS
14	WALL DETAILS
15	WALL DETAILS
16	DEMOLITION PLAN
17	CONSTRUCTION DETAILS
18	FENCING, PLANTING AND EROSION AND SEDIMENT CONTROL PLAN
19	FENCING AND EROSION CONTROL PLAN
20	EROSION AND SEDIMENT CONTROL DETAILS

USA NORTH 811 Call 811 Before You Dig.

TOPOGRAPHIC SURVEY NOTES

1. ALL DISTANCES SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.
2. 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.
3. DIMENSIONAL TIES TO IMPROVEMENTS ARE 90° TO THE PROPERTY LINES UNLESS NOTED OTHERWISE
4. THE FIELD DATA FOR THIS SURVEY WAS COLLECTED USING A LEICA RTC 360 LASER SCANNER AND THE TRIMBLE S5 1 SECOND TOTAL STATION.
5. THE TOPOGRAPHIC POINTS AND LINE WORK SHOWN HEREON WERE MAPPED FROM THE LASER SCAN POINT CLOUD.
6. 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	2129890.58'	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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DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2024
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

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:

1. ALL WORK IS TO BE DONE UNDER THE OVERSIGHT OF THE ENGINEER.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. DUST CONTROL DURING ALL PHASES OF CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
9. 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.
10. ANY DAMAGE TO THE EXISTING FACILITIES INCLUDING, TREES, AND FENCES SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE.
11. 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.
12. HAUL ROUTES SHALL BE ONLY ON STREETS AS PRE-APPROVED BY THE CITY ENGINEER.
13. TESTING AND OBSERVATION FOR THE PROJECT SHALL BE IN CONFORMANCE WITH THE TOWN OF DANVILLE QUALITY ASSURANCE PROGRAM DATED MAY 2022.
14. 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.
15. ALL ELEVATIONS SHOWN ARE FINISHED ELEVATIONS UNLESS STATED OTHERWISE.
16. CONTRACTOR SHALL LAY OUT ALL WORK, ESTABLISH ALL NECESSARY MARKERS, BENCH MARKS, GRADING STAKES, AND OTHER STAKES AS REQUIRED TO ACHIEVE DESIGN GRADES.
17. 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
PIV	POST INDICATOR VALVE
W	WATER METER
W	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
	LIGHT
	GUY ANCHOR
	JUNCTION POLE
	POWER POLE
	TRAFFIC SIGNAL WITH ARM
	GATE POST
	GUARD POST
	SIGN
	TREE
S	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
℄	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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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2024
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK NO. 67302 CIVIL STATE OF CALIFORNIA

NOTES, LEGEND, AND ABBREVIATIONS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 2 OF 20 SHEETS
PROJECT NO. 8870.000.011

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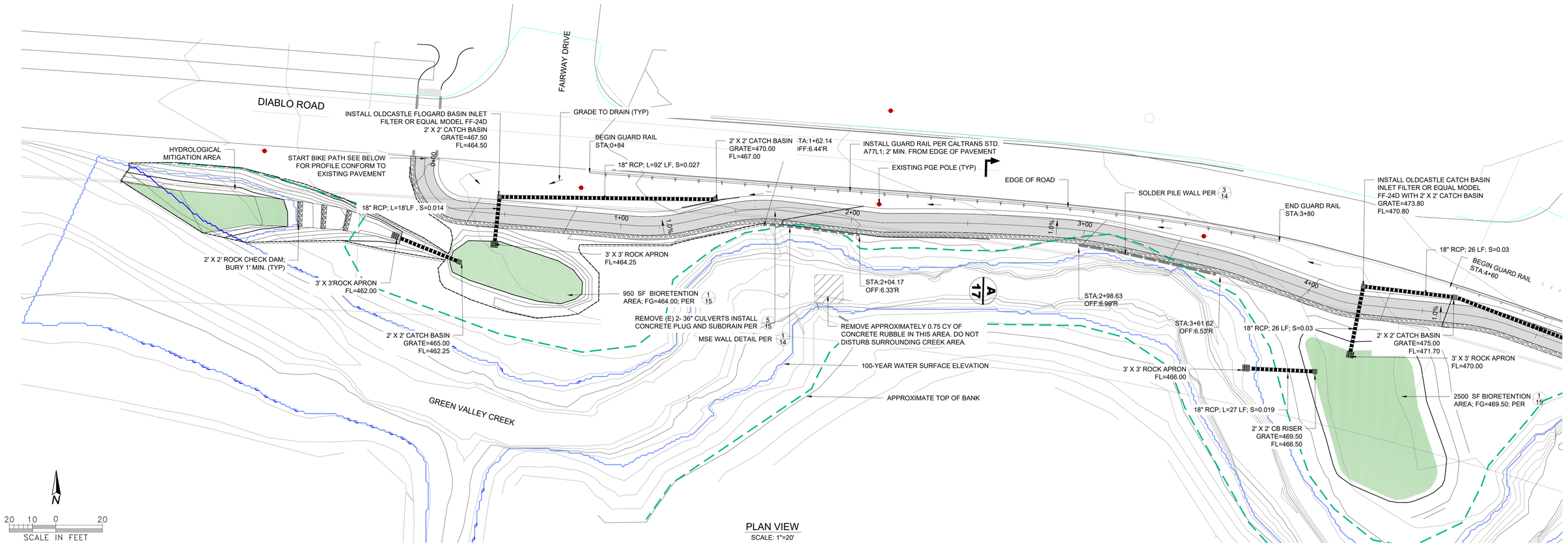
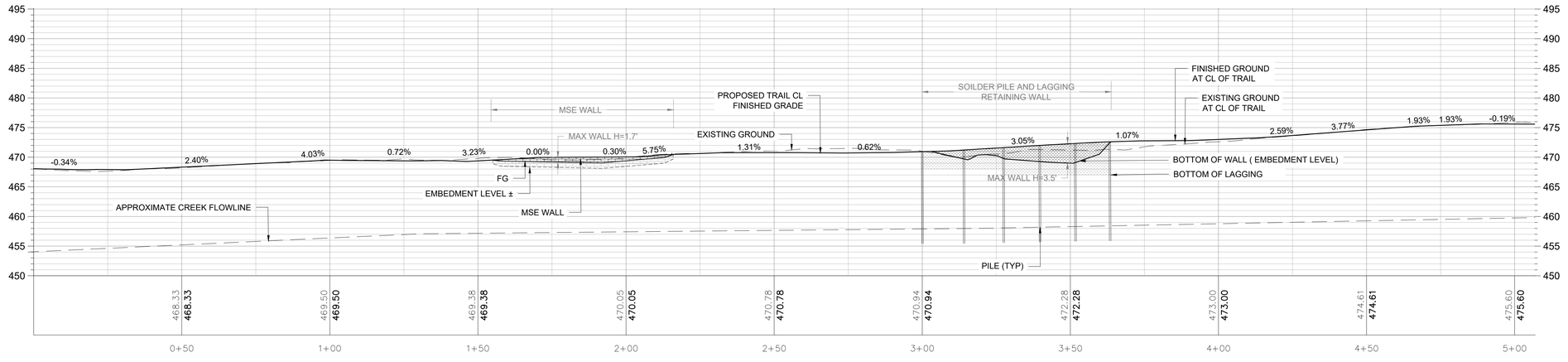
C:\Users\JDUBE~1\AppData\Local\Temp\AcPublish_34496\$R1000001\~Blake Trail Plans Fig1~2~1924.dwg 9×15×24 02:57:52 PM JDubertson



PLAN VIEW
SCALE: 1"=20'



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

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(888) 279-2698

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

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCKLEY No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 0+00 - 5+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 3 OF 20 SHEETS
PROJECT NO. 8870.000.011

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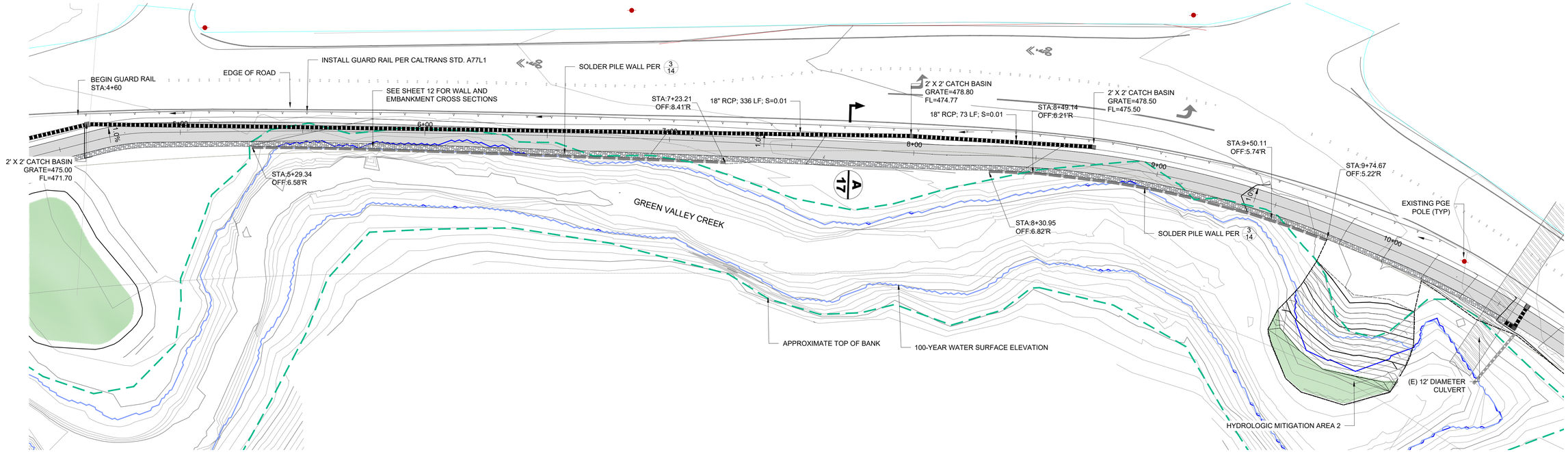
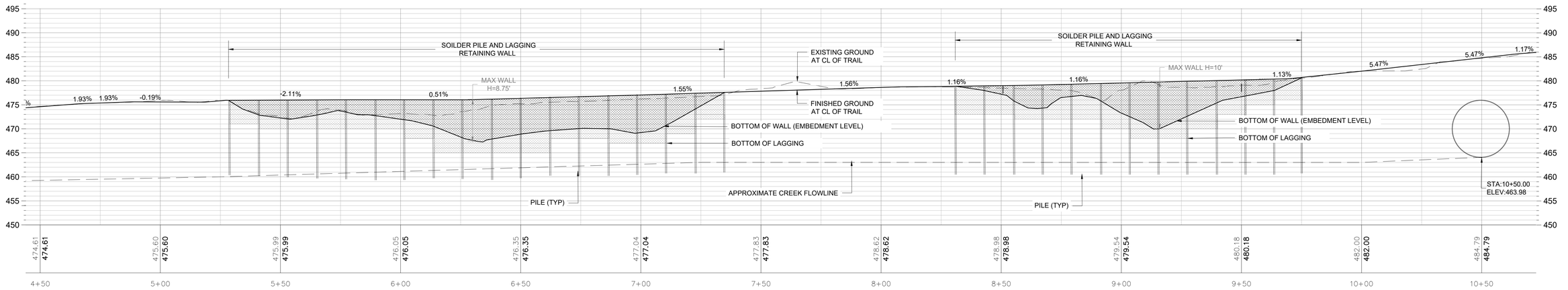


PLAN VIEW
SCALE: 1"=20'



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

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

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
No. 67302
CIVIL
STATE OF CALIFORNIA

PLAN AND PROFILE STA: 5+00 - 10+50

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 4 OF 20 SHEETS

PROJECT NO. 8870.000.011

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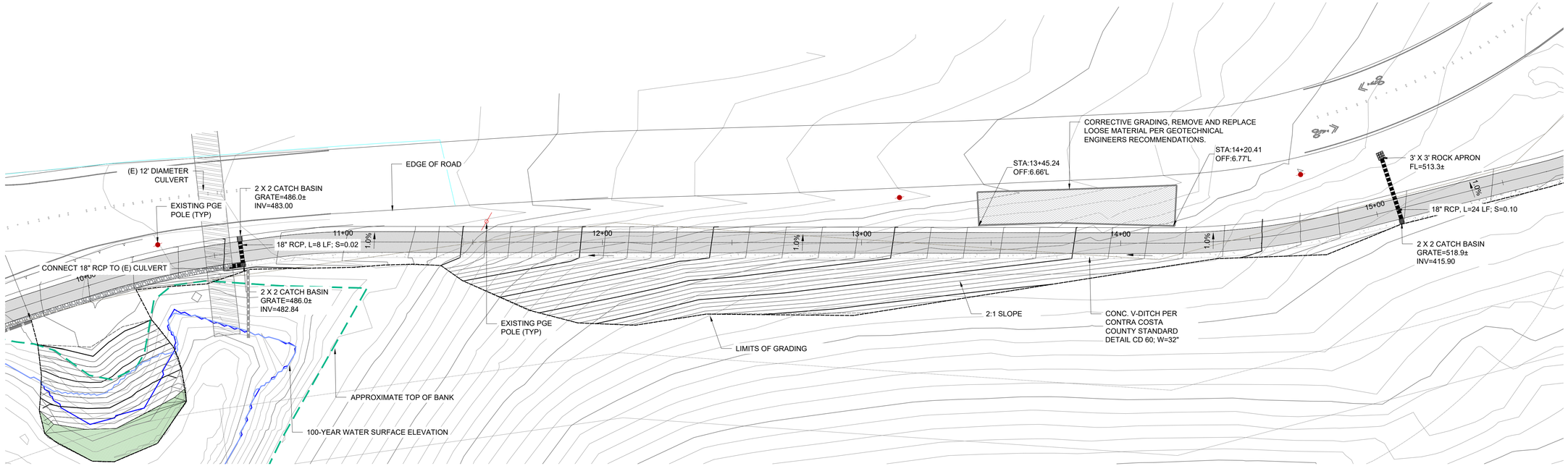
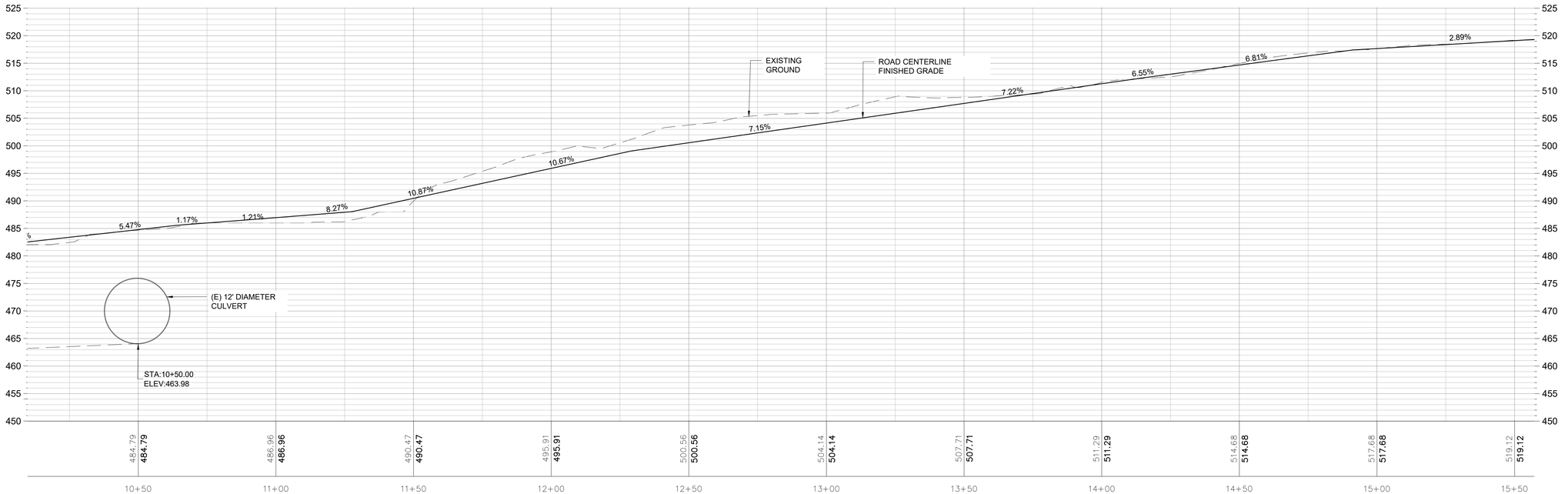


PLAN VIEW
SCALE: 1"=20'



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

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CHECKED BY:	JDB
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SCALE:	AS SHOWN

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PLAN AND PROFILE STA: 10+50 - 15+50

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 5 OF 20 SHEETS

PROJECT NO. 8870.000.011

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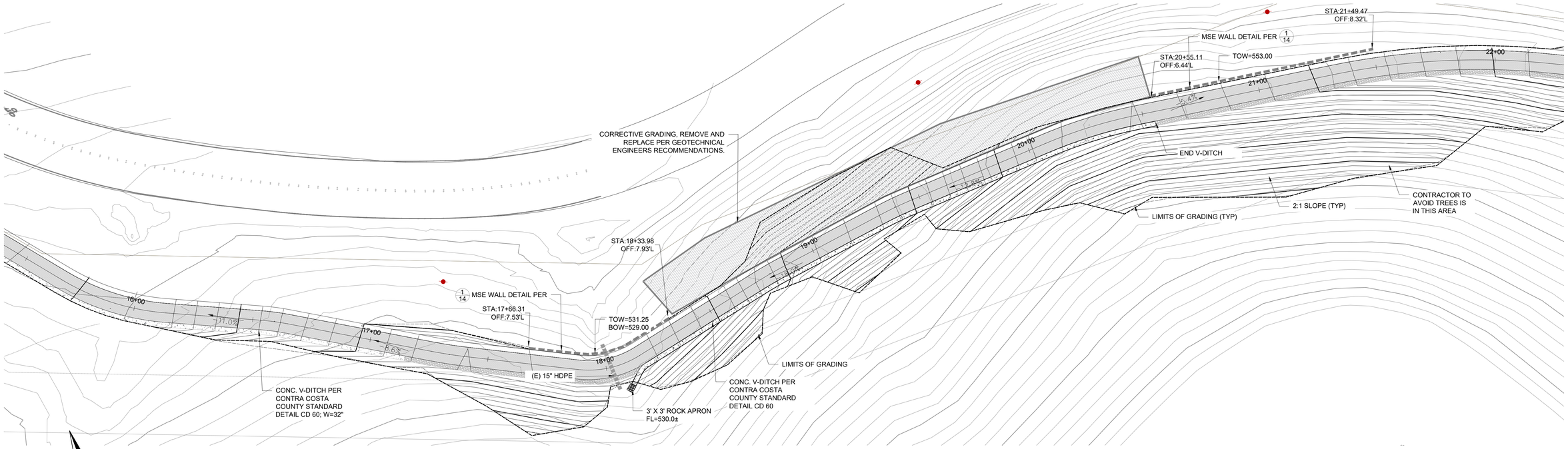
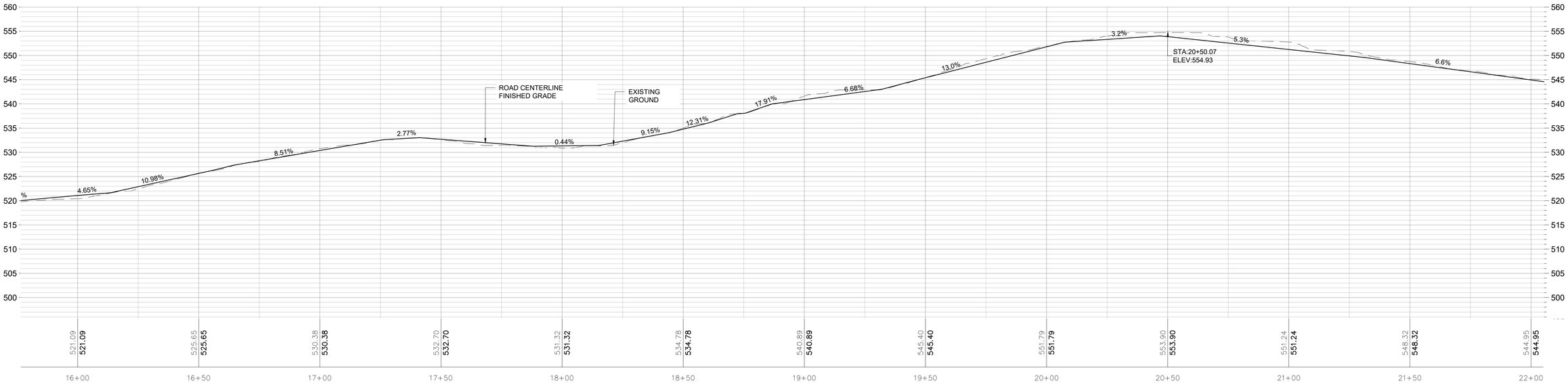


PLAN VIEW
SCALE: 1"=20'



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

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

REGISTERED PROFESSIONAL ENGINEER JONATHAN BECK No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 15+50 - 22+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 6 OF 20 SHEETS

PROJECT NO. 8870.000.011

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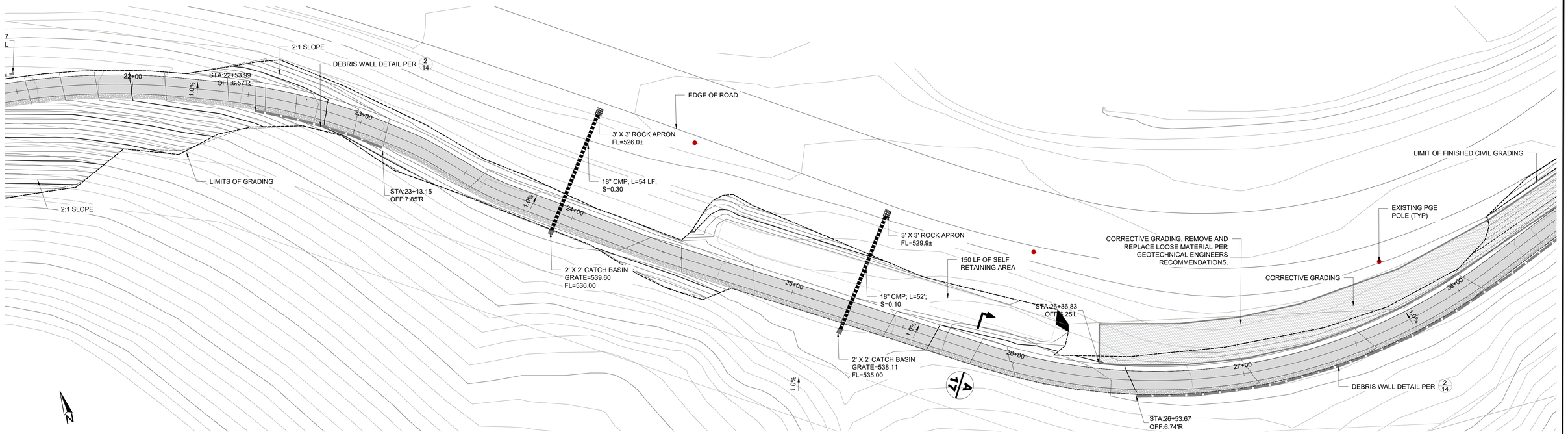
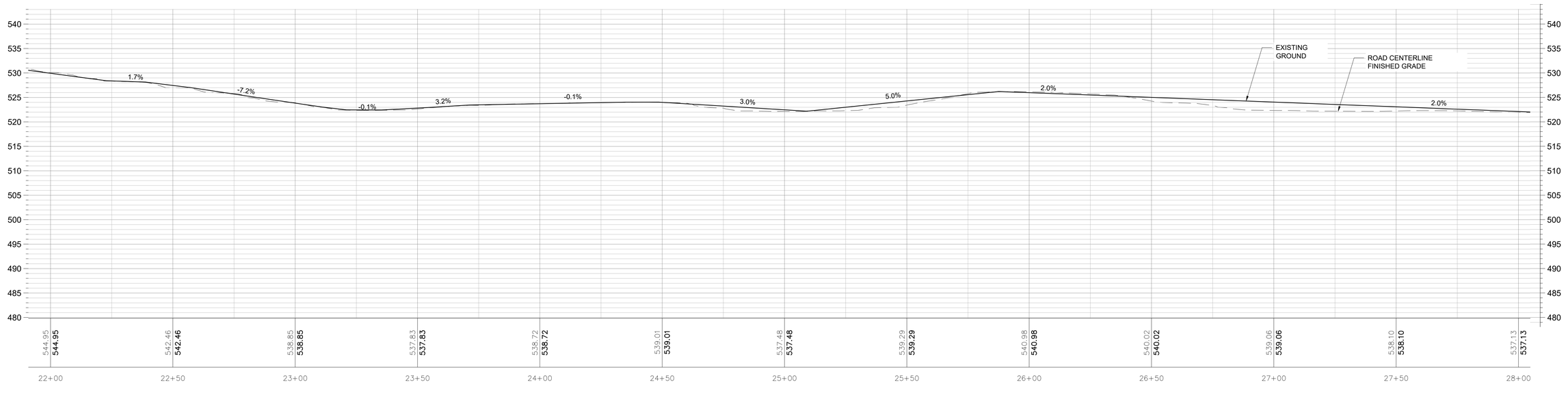


PLAN VIEW
SCALE: 1"=20' (HORIZONTAL); 1"=10'(VERTICAL)



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

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

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCKLEY
No. 67302
CIVIL
STATE OF CALIFORNIA

PLAN AND PROFILE STA: 22+00 - 28+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 7 OF 20 SHEETS
PROJECT NO. 8870.000.011

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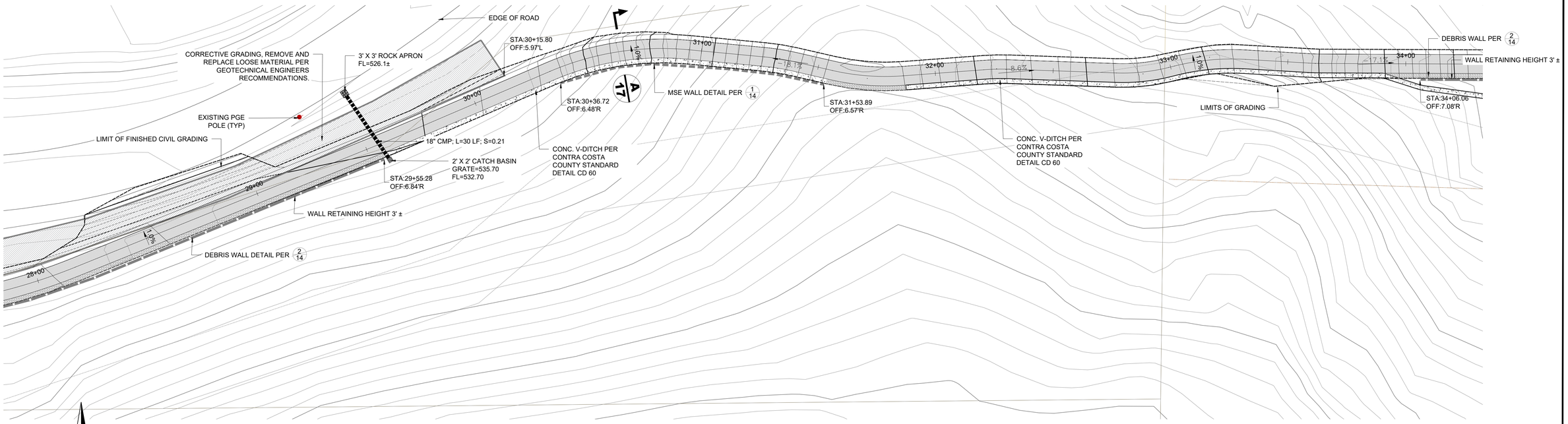
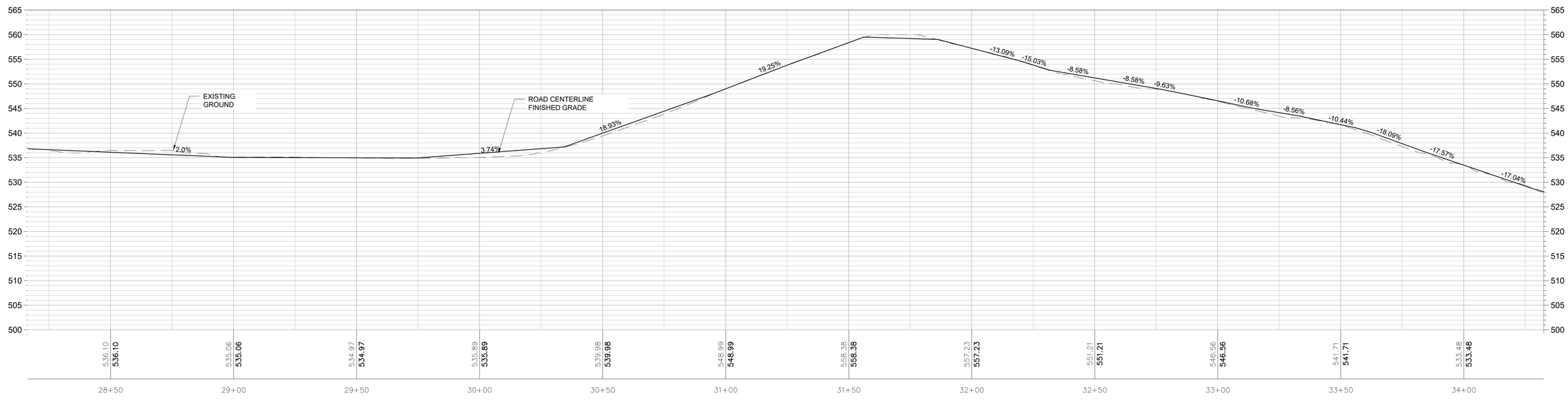


PLAN VIEW
SCALE: 1"=20'



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

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DATE:	MAY 2024
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCKLEY No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 28+00 - 34+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 8 OF 20 SHEETS
PROJECT NO. 8870.000.011

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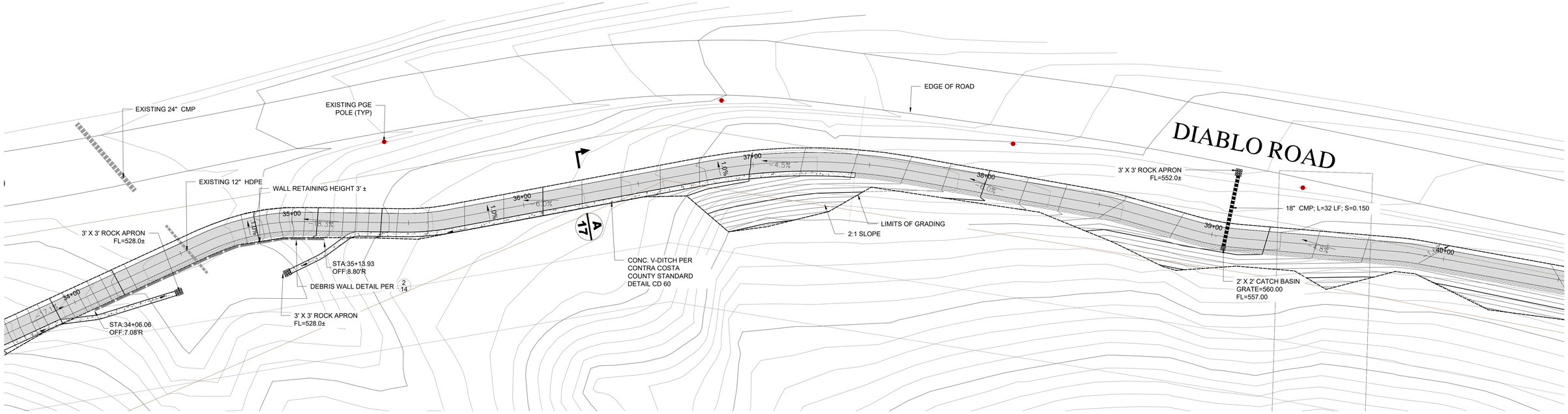

PROFILE VIEW
SCALE: 1"=20'

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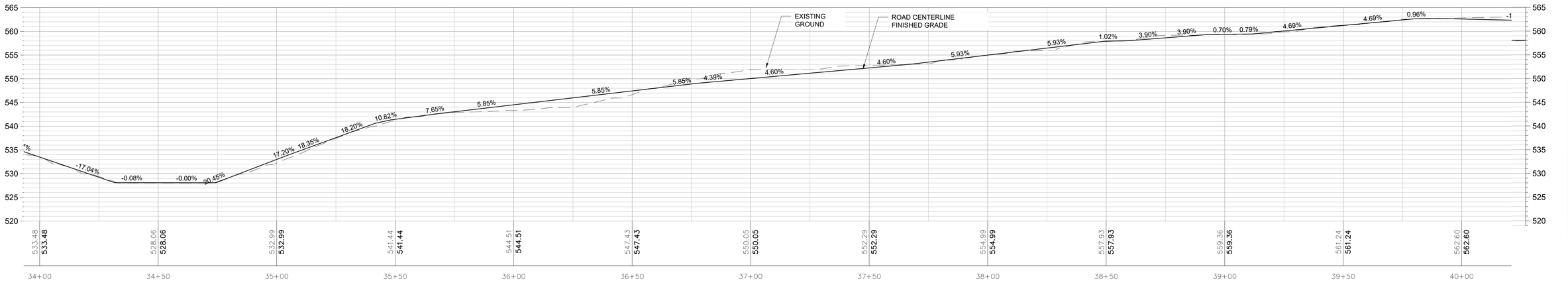
SCALE IN FEET



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

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

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 34+00 - 40+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 9 OF 20 SHEETS

PROJECT NO. 8870.000.011

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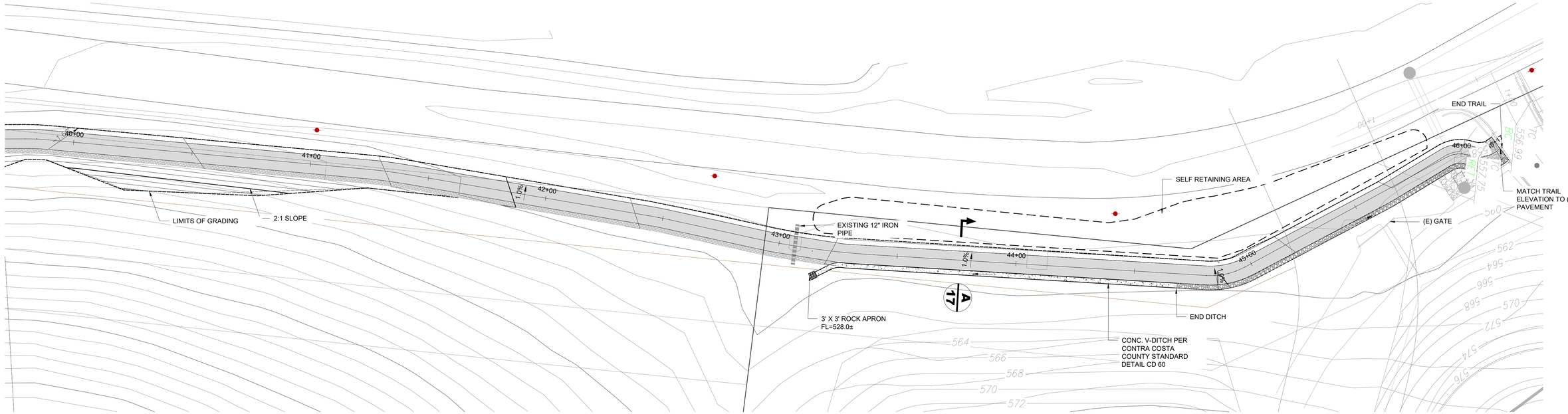

PLAN VIEW
SCALE: 1"=20'

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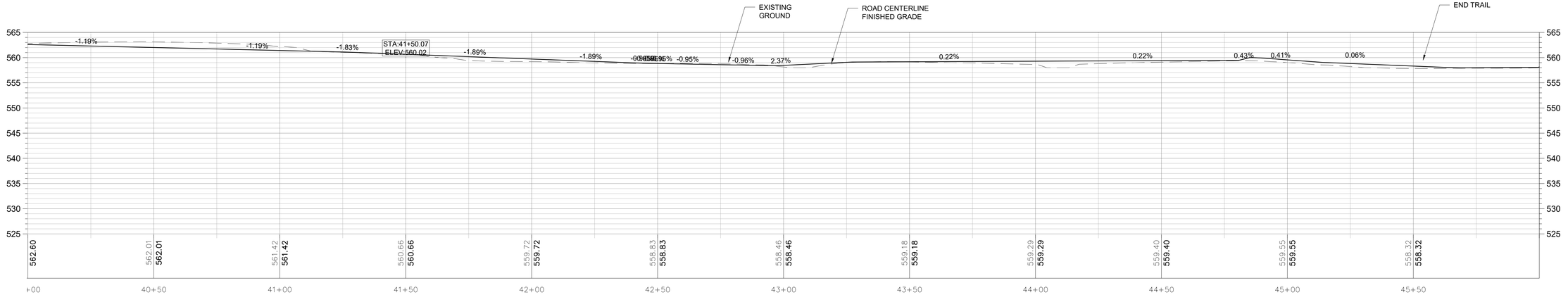
SCALE IN FEET



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

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

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
No. 67302
CIVIL
STATE OF CALIFORNIA

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

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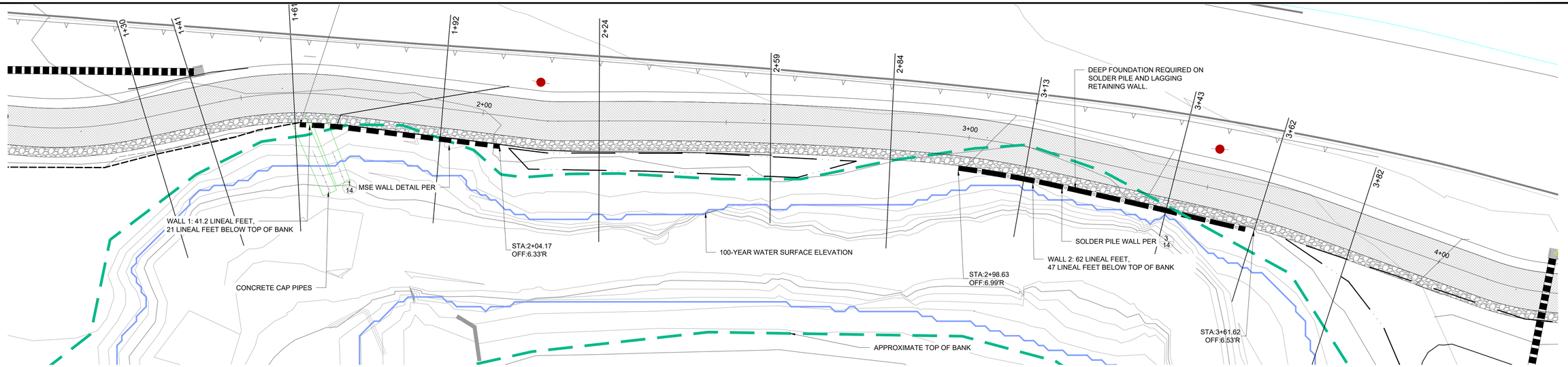
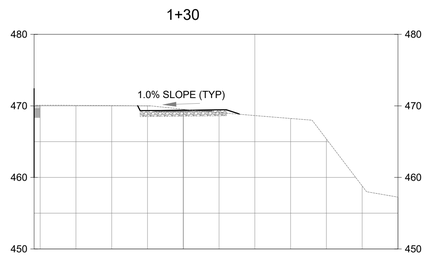
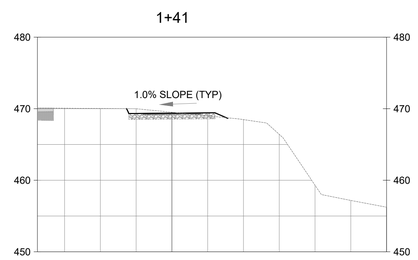
G:\Work\Jobs\8870\000\8870000011-Diablo Rd Trail Phase\8870000011-Diablo Trail Phase.PlanSP Fig 3-10.dwg 9-13-24 03:00:16 PM CCubertson

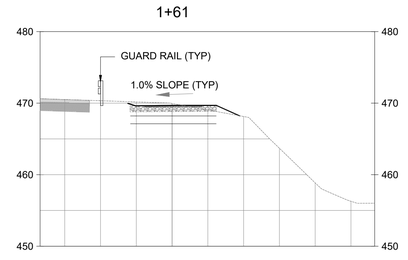


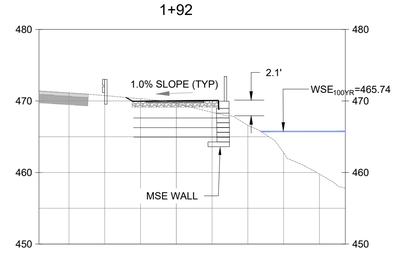
PLAN VIEW

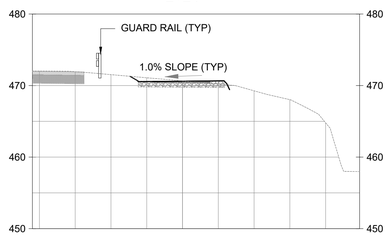
SCALE: 1"=10'

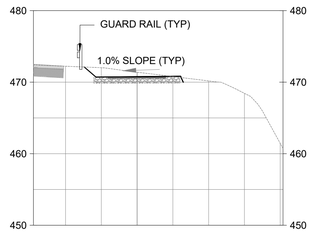


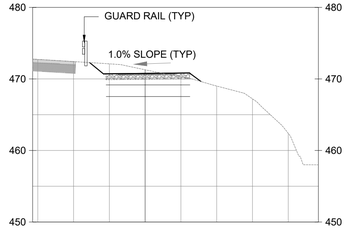


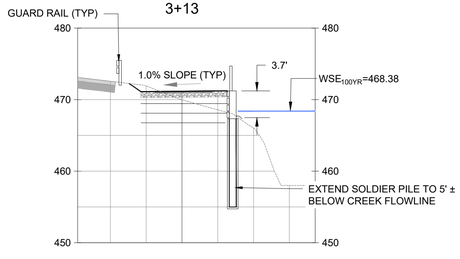


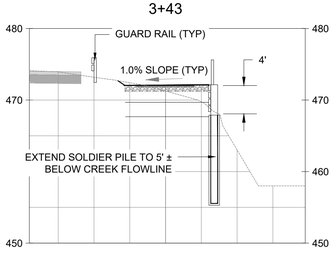


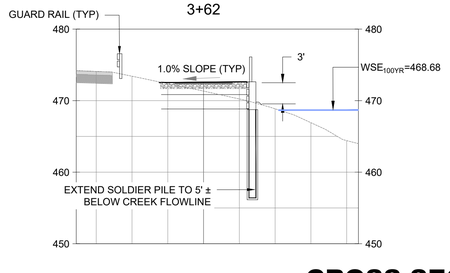


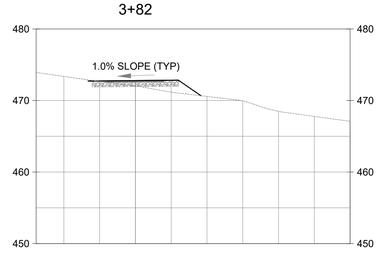












CROSS SECTIONS

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

USA NORTH 811 Call 811 Before You Dig.

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

REGISTERED PROFESSIONAL ENGINEER JONATHAN DUCHARME No. 67302 CIVIL STATE OF CALIFORNIA

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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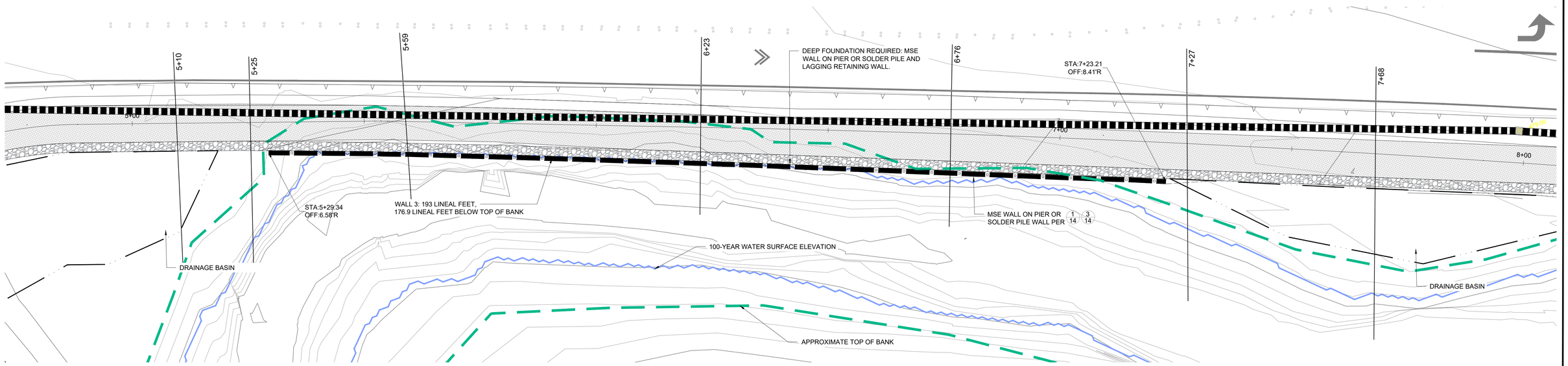
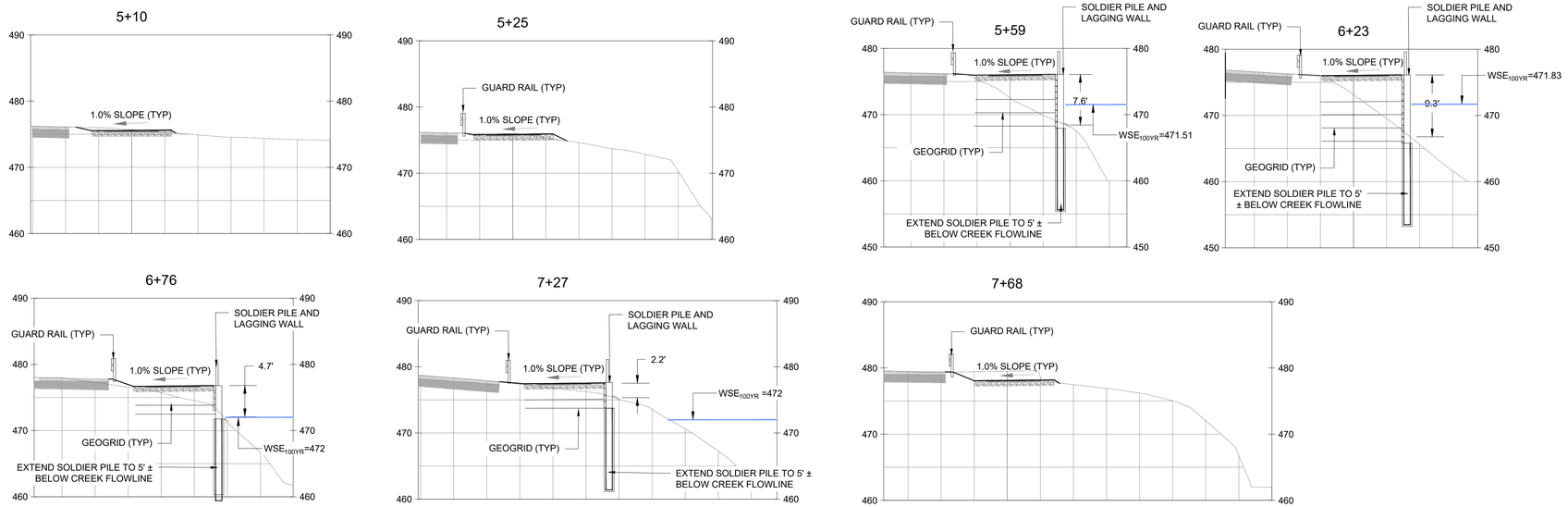


PLAN VIEW

SCALE: 1"=10'

10 5 0 10
SCALE IN FEET



CROSS SECTIONS

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

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

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67305 CIVIL STATE OF CALIFORNIA

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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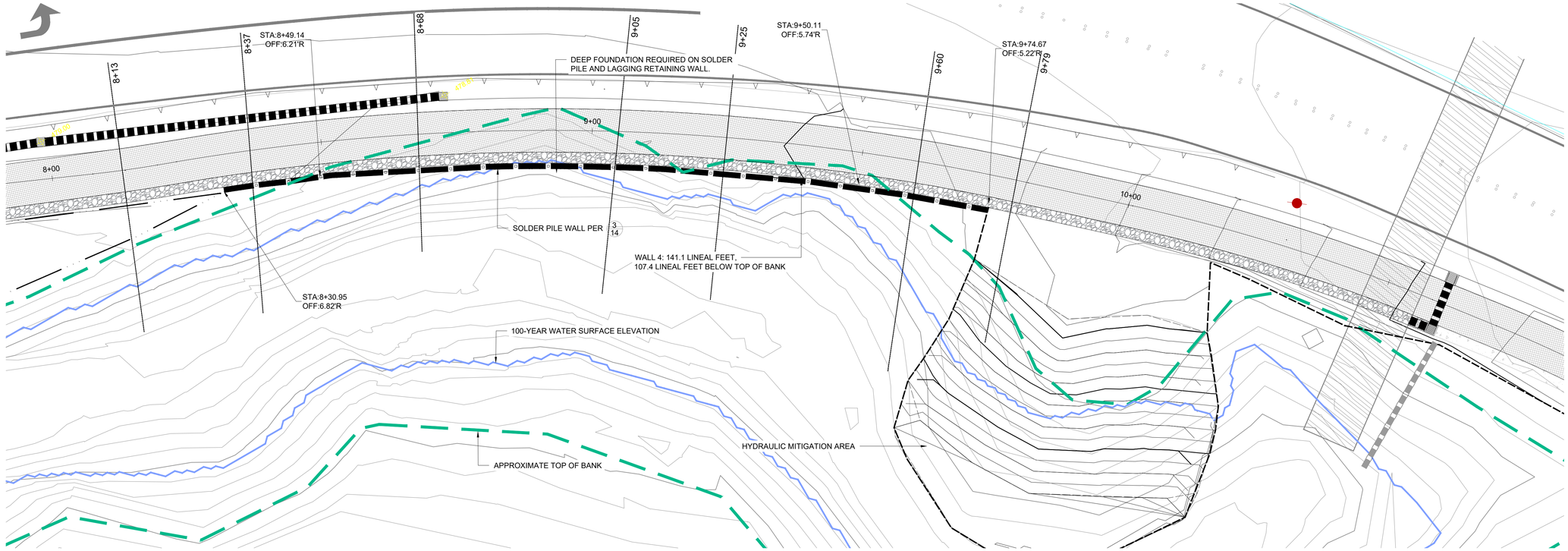
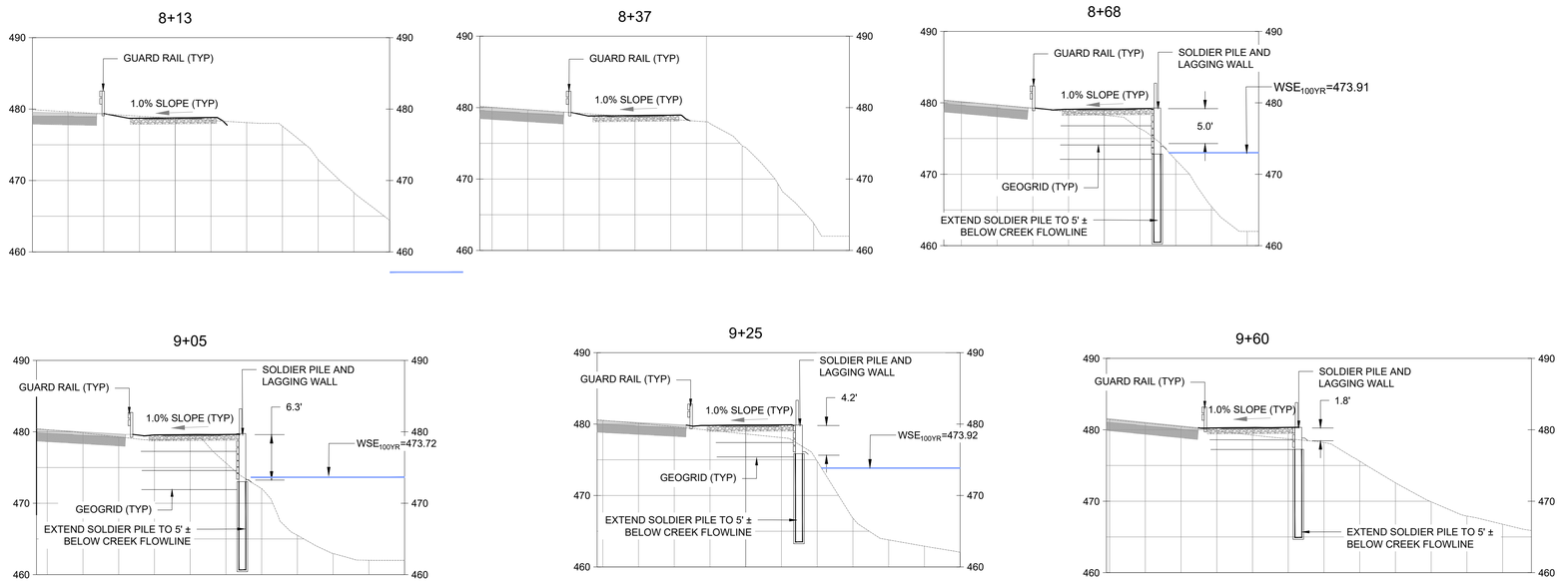


PLAN VIEW

SCALE: 1"=10'



CROSS SECTIONS

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

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

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK NO. 67302 CIVIL STATE OF CALIFORNIA

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

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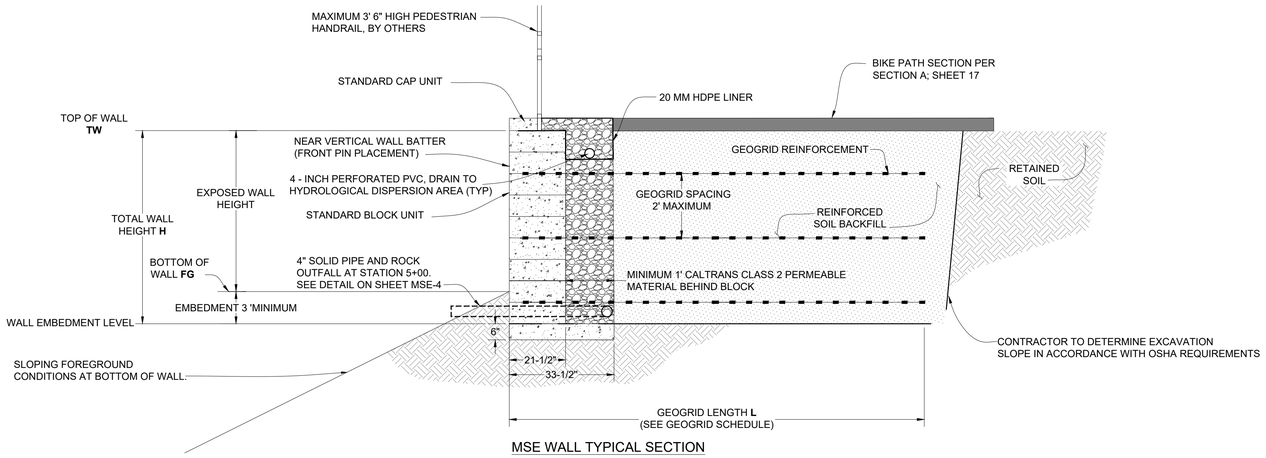
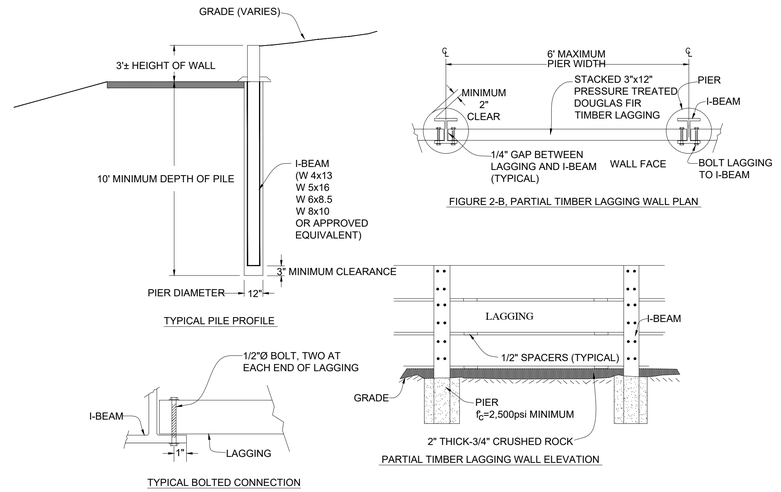


MSE WALL TYPICAL SECTION
NO SCALE

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



2 TYPICAL DEBRIS WALL DETAIL
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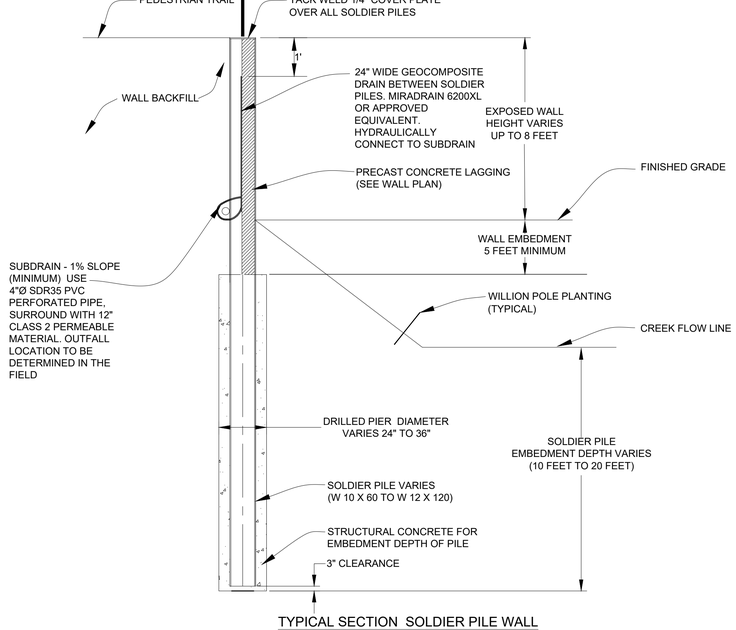

TYPICAL SECTION SOLDIER PILE WALL
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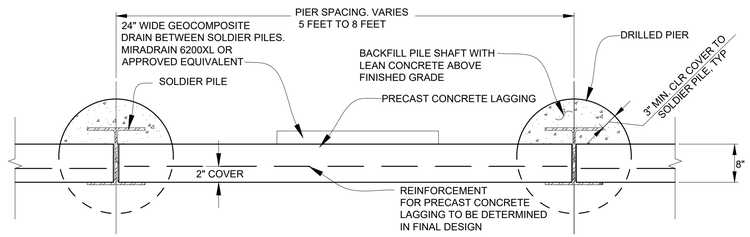
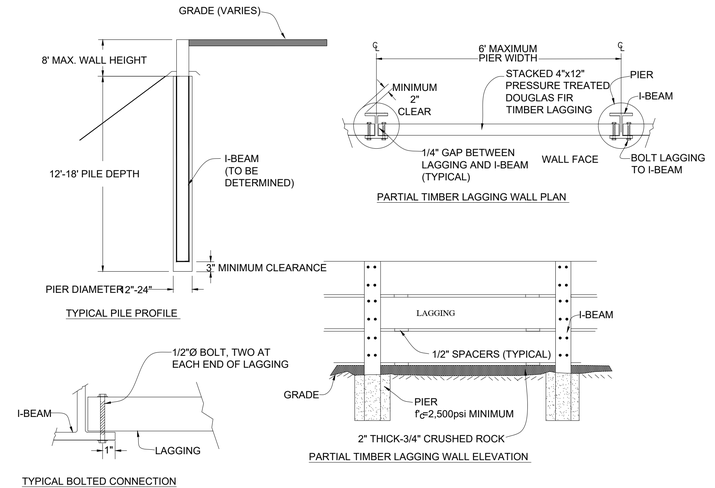


WALL PLAN
NO SCALE

SOLDIER PILES, CONCRETE, AND REINFORCING NOTES

1. STEEL SOLDIER PILES SHALL BE MINIMUM ASTM A50 STEEL WITH A MINIMUM YIELD STRESS(Fy) 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(Fy) OF 50 KSI.

4 TYPICAL SOLDIER PILE WALL DETAIL
NO SCALE



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

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

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
No. 67302
CIVIL
STATE OF CALIFORNIA

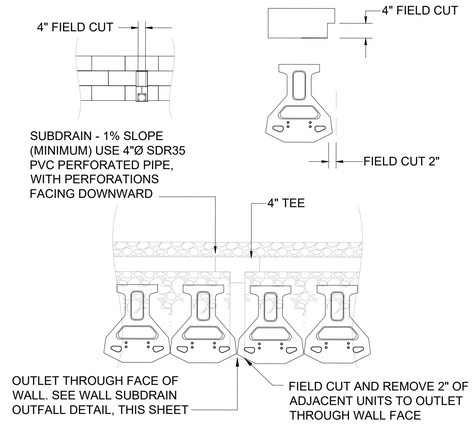
WALL DETAILS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 14 OF 20 SHEETS

PROJECT NO. 8870.000.011



DRAIN DETAIL
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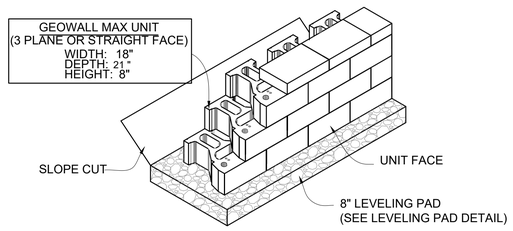
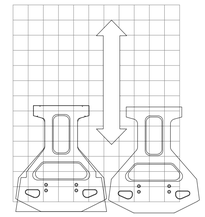
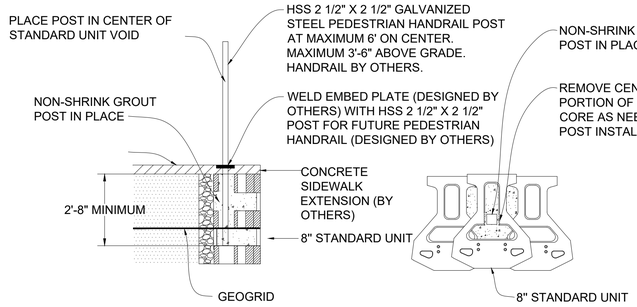


GEOWALL MAX UNIT/BASE PAD ISOMETRIC VIEW
NO SCALE



GEOGRID IS TO BE PLACED ON LEVEL BACKFILL OVER THE FIBERGLASS PINS. PLACE NEXT UNIT. PULL GRID TAUT AND BACKFILL. STAKE AS REQUIRED.

FRICTIONAL CONNECTION
NO SCALE



STEEL HANDRAIL POST CONNECTION DETAIL
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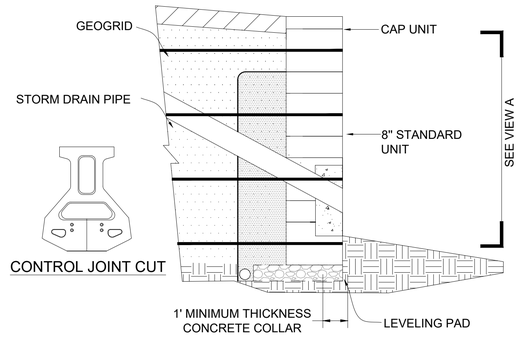

TYPICAL STORM DRAIN DETAIL
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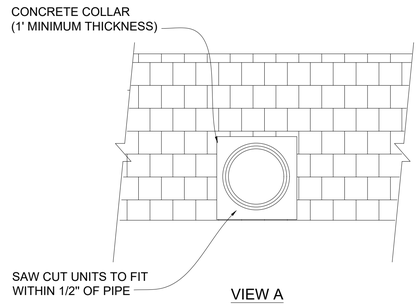
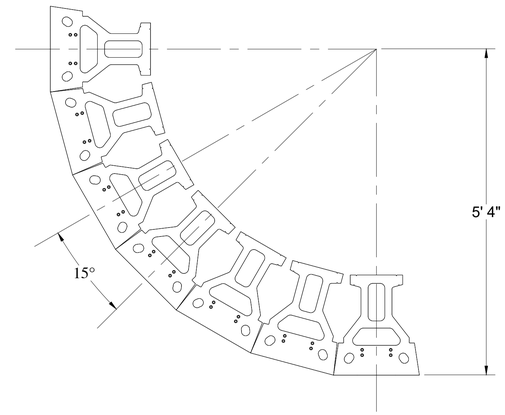


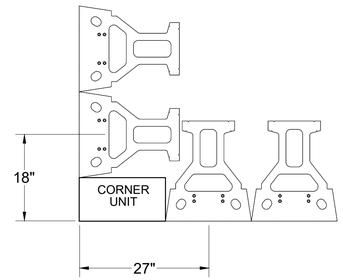
VIEW A

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



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

RADIUS DETAIL (PLAN)
NO SCALE



CORNER DETAIL (PLAN)
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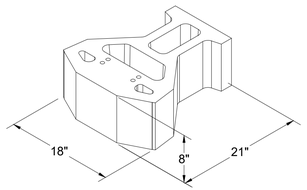

3 PLANE GEOWALL MAX UNIT
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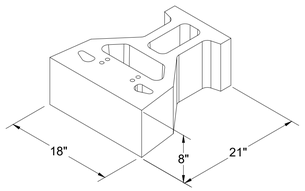

STRAIGHT FACE GEOWALL MAX UNIT
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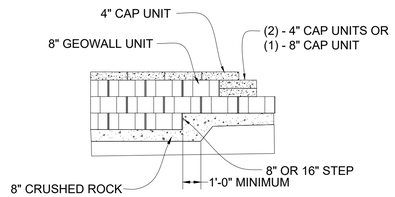

STEPPING AND CAPPING DETAIL
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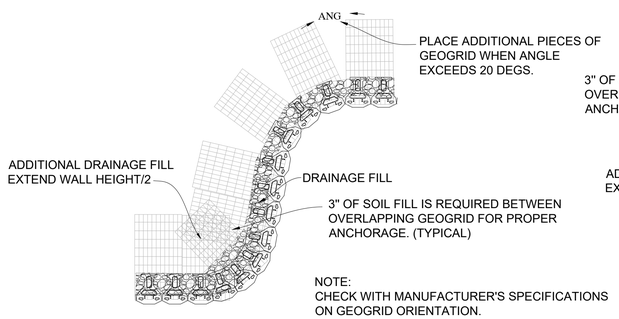
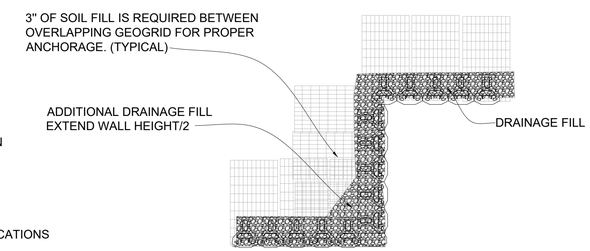


NOTE:
CHECK WITH MANUFACTURER'S SPECIFICATIONS ON GEOGRID ORIENTATION.

GEOGRID INSTALLATION ON CURVES
NO SCALE



GEOGRID INSTALLATION AT CORNERS
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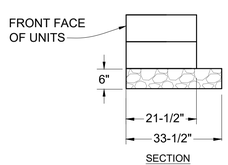
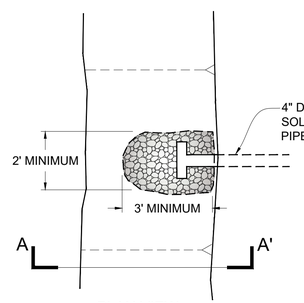


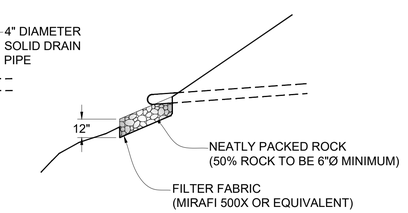
LEVELING PAD MATERIAL

COMPACTED CRUSHED STONE OR CLASS 2 AGGREGATE BASE MATERIAL

LEVELING PAD DETAIL
NO SCALE



PLAN VIEW



SECTION A-A'

WALL SUBDRAIN OUTFALL
NO SCALE

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

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
NO. 67302
CIVIL
STATE OF CALIFORNIA

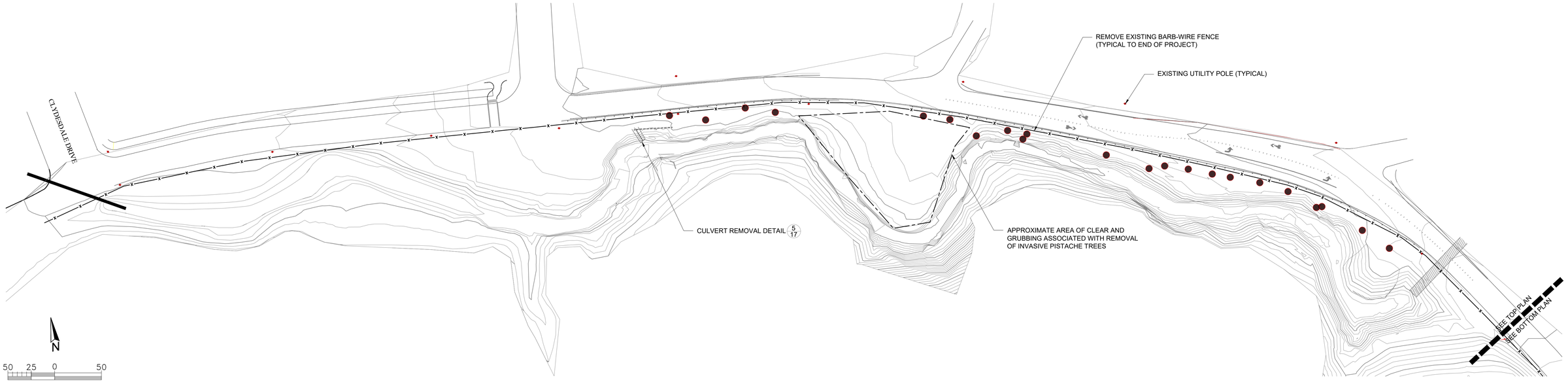
WALL DETAILS

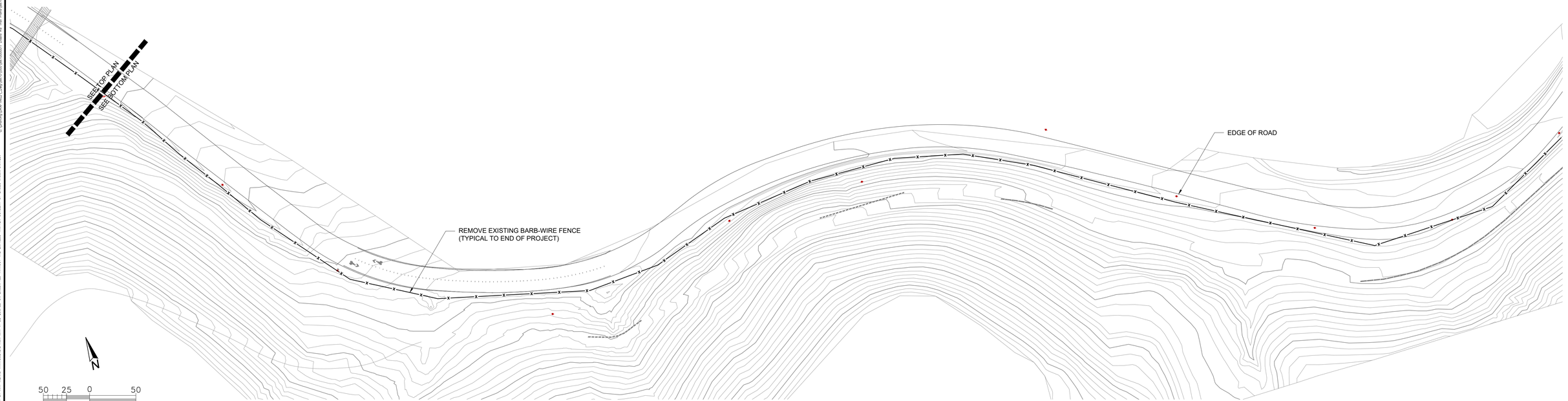
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 15 OF 20 SHEETS

PROJECT NO. 8870.000.011





EXPLANATION

● EXISTING TREES TO BE REMOVED

Notes:

1. 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.

USA NORTH 811 Call 811 Before You Dig.

DANVILLE

REV.	DATE	DESCRIPTION	BY

ENGEO Expect Excellence
2010 CROW CANYON PLACE
SUITE 250
SAN RAMON, CALIFORNIA 94583-4634
(925) 866-9000
(888) 279-2698
CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

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

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
No. 67302
CIVIL
STATE OF CALIFORNIA

DEMOLITION PLAN

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 16 OF 20 SHEETS

PROJECT NO. 8870.000.011

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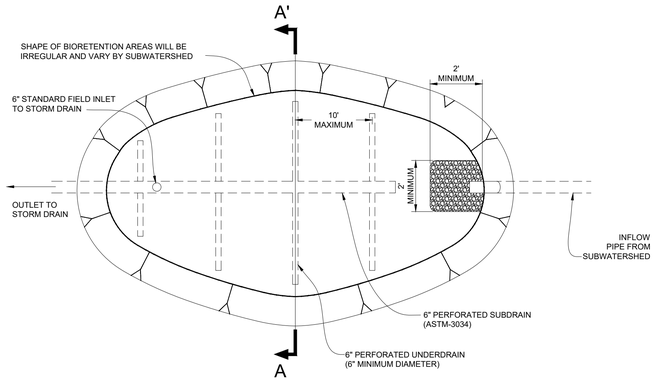
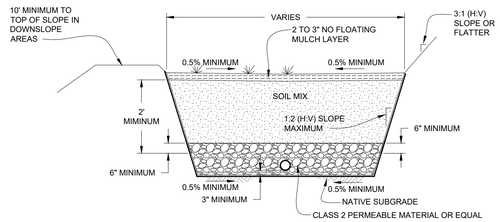
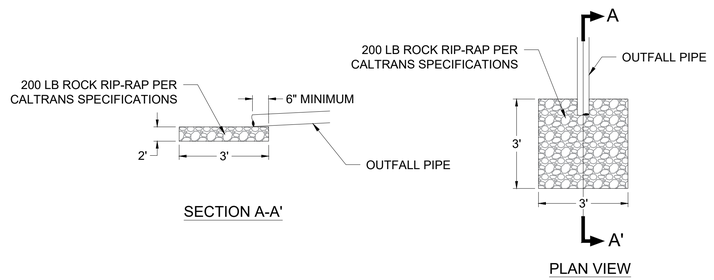


TYPICAL BIORETENTION AREA
WITH 3:1 SIDE SLOPES - PLAN VIEW
NO SCALE



SECTION A-A'
NO SCALE

1 TYPICAL BIORETENTION DETAIL
NO SCALE

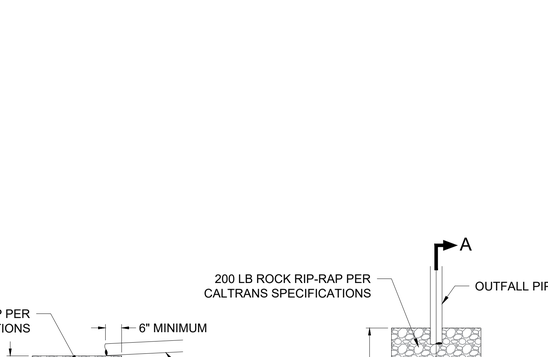


2 TYPICAL ROCK RIP-RAP APRON DETAIL
NO SCALE

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 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 AVALIABLE IN TRAFFIC OR PEDESTRIAN MODELS.
- DESIGN FOR H-20-44 BRIDGE LOADING.
- ASSEMBLY TO BE PLACED ON A 6" BASE OF CRUISHER 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

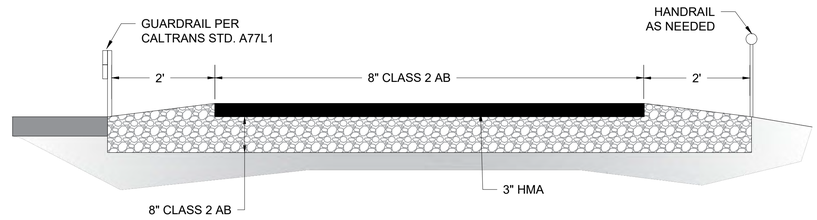
ENG DWG DATE: 11-28-00
REV DWG DATE:

JENSEN PRECAST

DI2424

8.01

4 TYPICAL FIELD INLET DETAIL
NO SCALE

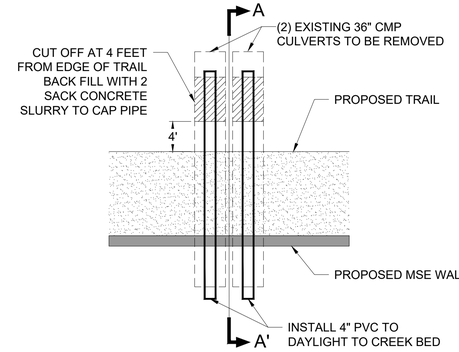


PAVEMENT CONSTRUCTION

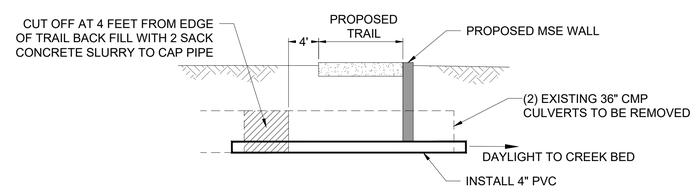
PAVEMENT CONSTRUCTION AND ALL MATERIALS SHOULD CONFORM TO THE SPECIFICATIONS AND REQUIREMENTS OF THE STANDARD SPECIFICATIONS BY THE DIVISION OF HIGHWAYS, DEPARTMENT OF PUBLIC WORKS, STATE OF CALIFORNIA, LATEST EDITION, TOWN OF DANVILLE REQUIREMENTS, AND THE FOLLOWING MINIMUM REQUIREMENTS.

- 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



PLAN VIEW



SECTION A-A'

5 TYPICAL CULVERT REMOVAL DETAIL
NO SCALE

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CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

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

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

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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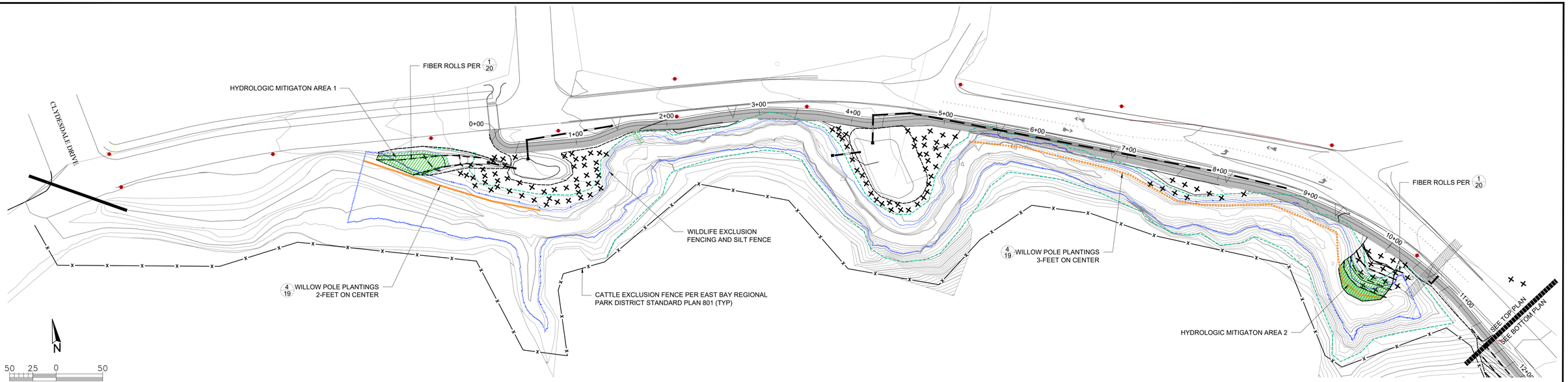
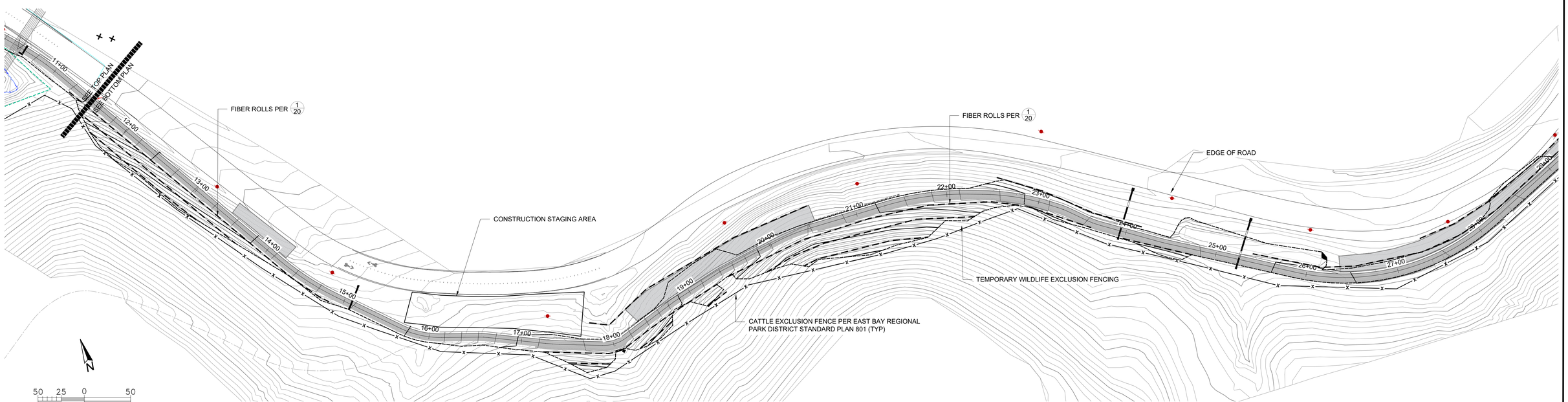


FENCING, PLANTING, AND EROSION & SEDIMENT CONTROL PLAN (STA: 0+00 - 11+50)

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
- UPLAND TREE INSTALLATION (SEE DETAIL SHEET 19)
- WILLOW POLE PLANTING

USA NORTH 811 Call 811 Before You Dig.

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 (AESCULUS SPP.). 123 TREES ARE REQUIRED PER THE TREE REPLACEMENT PLANTING AND MITIGATION PLAN PREPARED BY SEQUOIA ECOLOGICAL CONSULTING INC. DATE APRIL 2024.

DANVILLE

REV.	DATE	DESCRIPTION	BY

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SUITE 250
SAN RAMON, CALIFORNIA 94583-4634
(925) 866-9000
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DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2024
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

FENCING, PLANTING AND EROSION AND SEDIMENT CONTROL PLAN

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 18 OF 20 SHEETS
PROJECT NO. 8870.000.011

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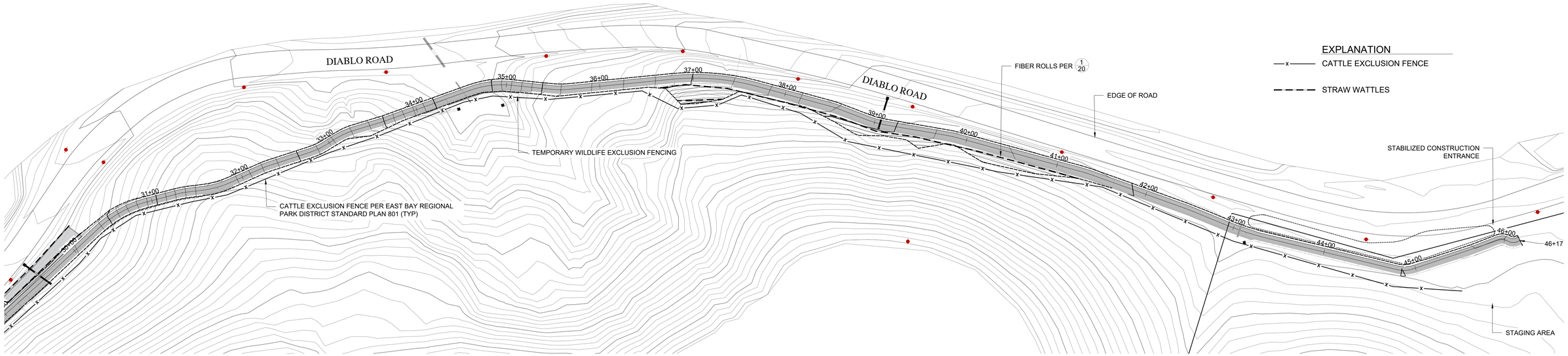


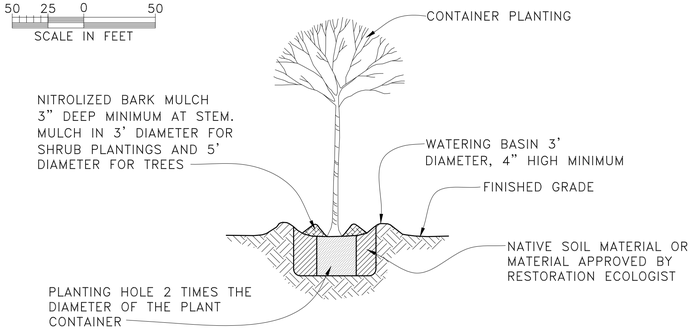
FENCING, PLANTING, AND EROSION & SEDIMENT CONTROL PLAN (STA: 29+00 - 45+55)

SCALE: 1"=50'

N

50 25 0 50

SCALE IN FEET

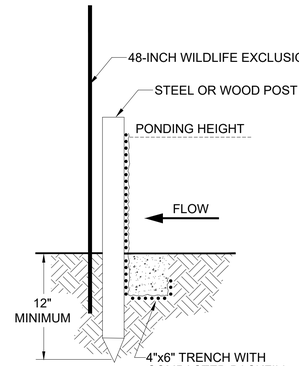


1. SCALP TREE POSITION CLEAR OF ANNUAL GRASS AND FORBS. 5' IN DIAMETER FOR TREES AND 3' IN DIAMETER FOR SHRUBS.

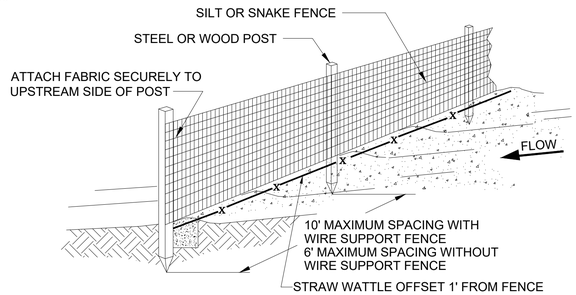
2. IN ENGINEERED FILL MATERIAL, AUGER PLANTING HOLE AND AUGER SIDES OF HOLE PRIOR TO BACKFILLING.

3. FOR SIZE AND SPACING REQUIREMENTS REFER TO PLANTING PLAN.

1 **TYPICAL CONTAINER PLANTING**
NO SCALE



TRENCH

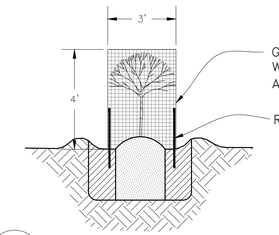


NOTES:

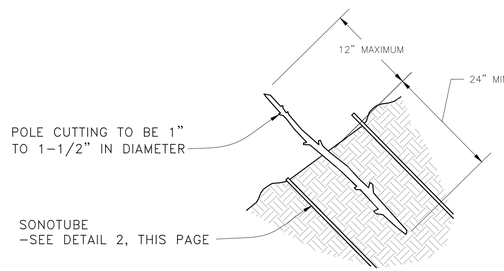
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY, 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. STOP FENCE AT TOP OF BANK OF ALL DRAINAGES.
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



1. BACKFILL WITH NATIVE SOIL TO REMOVE AIR POCKETS.

2. CUTTINGS TO BE SPACED APPROXIMATELY TO MATCH 5' O.C. IN CLUSTERS OF 5 WITH CLUSTERS SPACED 30' O.C.

4 **TYPICAL WILLOW PLANTING**
NO SCALE

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

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK BRUCKER NO. 67305 CIVIL STATE OF CALIFORNIA

FENCING AND EROSION CONTROL PLAN

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 19 OF 20 SHEETS

PROJECT NO. 8870.000.011

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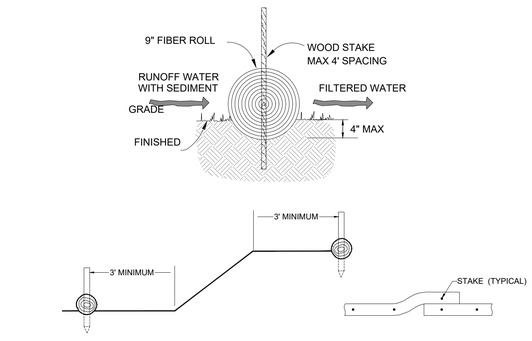


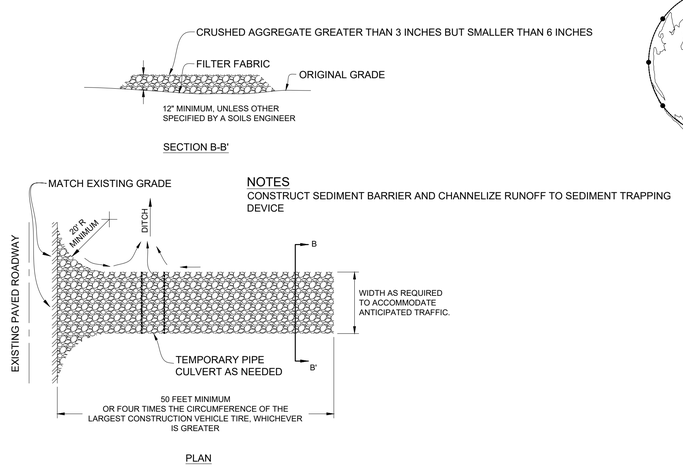
FIBER ROLL LOCATION AT TOP AND TOE OF SLOPE

ROLL LAP - PLAN VIEW

NOTES:

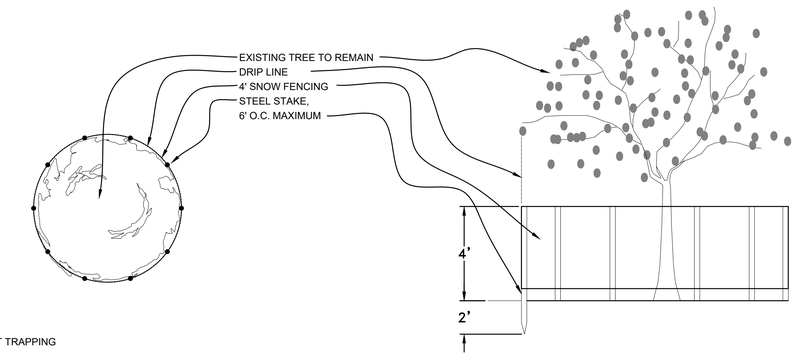
1. PREPARE SLOPE BEFORE THE FIBER ROLL PROCEDURE IS STARTED.
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 4" DEEP, ON CONTOUR OR AS SHOWN ON PLANS.
3. USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE FIBER ROLL AND INTO THE SOIL FOR WOODEN STAKES.
4. 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



NOTES
CONSTRUCT SEDIMENT BARRIER AND CHANNELIZE RUNOFF TO SEDIMENT TRAPPING DEVICE

2 — STABALIZED CONSTRUCTION ENTRANCE
NO SCALE



3 — EXISTING TREE PROTECTIVE FENCING
NO SCALE

SEED MIX

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

SEED MIX

REGREEN (ELYMUS X TRITICUM)	12.0 LBS/ACRE
CREEPING WILDRYE (LEYMUS TRITICOIDES)	8.0 LBS/ACRE
BLUE WILDRYE (ELYMUS GLAUCUS)	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
TOTAL (LBS/ACRE)	36.5 LBS/ARCE

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.

BASIC CONTROL MEASURES:

1. WATER ALL ACTIVE CONTRUCTION 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 STABLILIZERS 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.

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 TARPAULIN 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/OWNERS'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.

USA NORTH 811 Call 811 Before You Dig.

REV.	DATE	DESCRIPTION	BY

ENGEO Expect Excellence
2010 CROW CANYON PLACE
SUITE 250
SAN RAMON, CALIFORNIA 94583-4634
(925) 866-9000
(888) 279-2698
CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

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

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK NO. 67302 CIVIL STATE OF CALIFORNIA

EROSION AND SEDIMENT CONTROL DETAILS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 20 OF 20 SHEETS
PROJECT NO. 8870.000.011

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APPENDIX G

GEOTECHNICAL REPORT – ENGEO 2025

DIABLO ROAD PEDESTRIAN TRIAL PROJECT

DANVILLE, CALIFORNIA

GEOTECHNICAL DATA REPORT

SUBMITTED TO
Mr. Allan Shields
Town of Danville
500 La Gonda Way
Danville, CA 94526

PREPARED BY
ENGEO Incorporated

May 29, 2025

PROJECT NO.
8870.000.011

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Project No.
8870.000.011

May 29, 2025

Mr. Allan Shields
Town of Danville
510 La Gonda Way
Danville, CA 94526

Subject: Diablo Road Pedestrian Trail Project
Danville, California

GEOTECHNICAL DATA REPORT

Dear Mr. Shields:

We are pleased to provide this Geotechnical Data Report (GDR) for the Diablo Road Pedestrian Trail Project located in Danville, California. The site is owned by the Town of Danville.

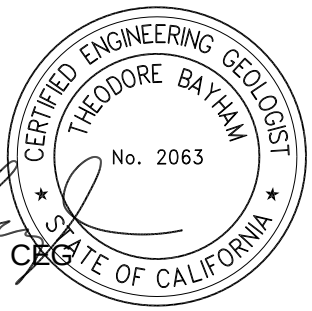
This report provides the geotechnical data obtained in our geotechnical exploration carried out in March of 2023 to support design and construction of the Diablo Road Pedestrian Trail. We were contracted with the Town of Danville for this scope of work under Professional Services Agreement Account Code 14G81993-7720C-XC055 for Capital Improvement Project C-055 dated March 8, 2024, and amended on February 25, 2025.

This GDR may be made available to bidders and construction contractors as a reference document. This GDR is not a construction document and should not be construed as such.

If you have any questions or comments regarding this report, please contact us and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated



Jonathan Buck, GE, LEED AP, QSD

Theodore P. Bayham, GE, CEG

ww/jb/tpb/ar

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APPENDIX C – Geotechnical Laboratory Test Data

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

We prepared this Geotechnical Data Report (GDR) containing relevant geologic and geotechnical data for the Diablo Road Pedestrian Trail project located along the southern side of Diablo Road in Danville, California. The site is bound by Fairway Drive to the west and Alameda Diablo to the southeast, as shown in the Vicinity Map, Figure 1.

The scope of our services included performing pre-field activities, observing and logging subsurface explorations, and performing laboratory testing on select soil samples retrieved from our explorations. Our exploration program included drilling five geotechnical borings (1-B1 through 1-B5). The locations of the explorations are presented in the Site Plan, Figure 2.

1.2 PROJECT DESCRIPTION

The proposed 12-foot-wide pedestrian trail will start near Fairway Drive, approximately 85 feet southeast of the existing culvert, and extend approximately 0.9 miles along the southern side of Diablo Road. The trail alignment is to be in a narrow strip of land between Diablo Road and Green Valley Creek.

All elevations referred to in this report are with respect to WGS84 datum.

2.0 FIELD EXPLORATION

2.1 SUBSURFACE EXPLORATION DESCRIPTION

We carried out our site explorations on January 23 and 24, 2023, and May 23, 2025. The general scope of our field explorations for the project are presented below.

- Five geotechnical exploration borings (1-B1 through 1-B5):
  - Borings were advanced using solid-flight auger drilling techniques.
  - Depth of explorations ranged from approximately 26 feet to 31½ feet below ground surface (bgs).
  - Disturbed and relatively undisturbed samples were collected from discreet depths to characterize the subsurface conditions encountered and to identify suitability for laboratory testing.
- Three cone penetration test soundings (2-CPT1 through 2-CPT3):
  - Cone penetration tests (CPTs) were advanced to 50 feet bgs.

Our exploratory boring logs are presented in Appendix A. The logs contain the soil type, color, consistency, and visual classification in general accordance with the Unified Soil Classification System (USCS), along with laboratory results for tests completed on select samples collected during the exploration. The logs graphically describe the subsurface conditions at the exploration locations for the date of exploration; however, subsurface conditions may vary with time. The CPT logs are presented in Appendix B.

2.1.1 Utility Clearance

In preparing our site plan, we located the borings in areas clear of underground utilities with adequate overhead clearance between the drill rig mast and overhead lines. We notified Underground Services Alert (USA) of the field activities a minimum of 48 hours prior to the start of the work.

2.2 EXPLORATION METHODS

2.2.1 Geotechnical Borings and Logging

The borings were drilled and sampled by West Coast Exploration under the supervision of ENGEO's geologist using an approximately 4.5-inch-diameter solid-flight auger drilling technique on a truck-mounted CME drill rig.

A summary of the borings is presented in Table 2.2-1. The borings were logged in the field by a geologist through the examination of soil samples and drill cuttings. The logs were prepared in accordance with the USCS based on the field logged soil descriptions, visual examination of samples in the laboratory, and laboratory test results. The as-drilled boring locations are shown in the Site Plan, Figure 2, and the boring logs are included in Appendix A. Select geotechnical laboratory test results are shown in the logs with a complete set of results included in Appendix B.

TABLE 2.2-1: Summary of Boring Locations

BORING NO.	DATE DRILLED	LATITUDE/LONGITUDE (degrees)	GROUND SURFACE ELEV. (feet, WGS84)	BORING DEPTH[a] (feet)
1-B1	1/23/2023	37.835693/-121.969209	473	26½
1-B2	1/23/2023	37.835554/-121.968425	476	31½
1-B3	1/23/2023	37.835496/-121.968193	476	29
1-B4	1/24/2023	37.8352332/-122.9673395	479	26
1-B5	1/24/2023	37.83513/-121.967127	480	31½

Note: [a]. Final approximate total drilled depth

2.2.2 Cone Penetration Testing

We retained the services of a subcontractor operating a CPT rig to perform testing to a maximum depth of approximately 50 feet bgs. The CPT has a 20-ton compression-type cone with a 15-square-centimeter (cm2) base area, an apex angle of 60 degrees, and a friction sleeve with a surface area of 225 cm2. The cone, connected with a series of rods, is pushed into the ground at a constant rate. Cone readings are taken at approximately 5-cm intervals with a penetration rate of 2 cm per second in accordance with ASTM D5778.

Measurements include the tip resistance to penetration of the cone (Qc), the resistance of the surface sleeve (Fs), and pore pressure (U) (Robertson and Campanella, 1988). The CPT logs are presented in Appendix B.

TABLE 2.2-1: Summary of CPT Locations

BORING NO.	DATE DRILLED	LATITUDE/LONGITUDE (degrees)	GROUND SURFACE ELEV. (feet, WGS84)	BORING DEPTH[a] (feet)
2-CPT1	5/23/2025	37.83571/-121.96948	472	50
2-CPT2	5/23/2025	37.83552/-121.96833	477	50
2-CPT3	5/23/2025	37.83521/-121.96734	480	50

Note: [a]. Final approximate total drilled depth

2.3 SOIL SAMPLING AND DATA COLLECTION METHODS

A standard penetration test (SPT) split-spoon driven sampler with a 1½-inch inside diameter (I.D.), 2-inch outside diameter (O.D.) was used to collect samples and obtain SPT blow counts. A modified California split-spoon driven sampler with a 2½-inch I.D., 3-inch O.D. was used to collect samples and obtain blow counts. The samples and blow counts were obtained by dropping a 140-pound hammer (automatic trip hammer) through a 30-inch free fall and the number of blows was recorded for each 6 inches of penetration. The blow counts recorded on the boring logs represent the accumulated number of blows to drive the sampler 12 inches; the blow counts have not been converted using any correction factors. The auto-trip hammers on the drill rigs used in the investigation are periodically tested by West Coast Drilling for efficiency. Based on historical test results for a range of site conditions, the hammers are estimated to operate at approximately 75 percent energy efficiency (corresponding to an energy correction factor of C_E=1.25 for determining corrected blow counts). Storage and transport of the samples consisted of sealed bags and capped steel sampling sleeves for SPT and modified California samples, respectively.

2.4 GEOTECHNICAL LABORATORY TESTING

Samples were tested to determine the soil classification and engineering properties of the soil. Laboratory tests that were performed included the following.

- Dry density (ASTM D2937)
- Moisture content (ASTM D2216)
- Grain Size Distribution (ASTM D422)
- Percent passing No. 200 sieve (ASTM D1140)
- Atterberg Limits (ASTM D4318)
- Unconfined Compression Strength Test (ASTM D2166)

Laboratory test results are summarized on the exploration logs presented in Appendix A and tabulated below in Table 2.4-1. The detailed data sheets documenting the laboratory testing results are presented in Appendix C.

TABLE 2.4-1: Summary of Geotechnical Laboratory Testing

BORING NO.	DEPTH (feet)	SAMPLE TYPE	DRY DENSITY [a] (pcf)	MOISTURE CONTENT [b] (%)	SAMPLE GRADATION [c]			UCS[d] (psf)	ATTERBERG LIMITS [e]
					% GRAVEL	% SAND	% FINES		LL – PL - PI
1-B1	3-3.5	MC	97.5	20.6					33-23-10
1-B1	11-11.5	MC	107.4	20.4					
1-B1	16-16.5	MC			3	72	25		
1-B2	16-16.5	MC					52		
1-B3	9-9.5	MC	96.2	27.3				772	
1-B3	14-14.5	MC	105.9	20.3					
1-B4	2-3.5	SPT							35-17-18
1-B4	5-6.5	SPT		12.9					
1-B4	11-11.5	MC					33		
1-B5	11-11.5	MC		15.6					

Notes:
[a.] ASTM D2937
[b.] ASTM D2216
[c.] ASTM D1140 and ASTM D422
[d.] ASTM D2166
[e.] ASTM D4318
SPT = Standard Penetration Test, split spoon sampler, MC = Modified California sampler (2.5 I.D., used with liners)
pcf = pounds per cubic foot, psf = pounds per square foot
LL = Liquid Limit, PL = Plastic Limit, PI = Plasticity Index, NP = Non-Plastic

2.5 LOCAL GROUNDWATER CONDITIONS

Field measurements of water levels, as noted in our borings at the time of drilling and interpreted from the CPT logs, are listed in Table 2.5-1.

TABLE 2.5-1: Local Groundwater Conditions

BORING NO.	DATE DRILLED	LATITUDE/LONGITUDE (degrees)	APPROX. DEPTH OF GROUNDWATER DURING DRILLING (feet)	APPROX. GROUNDWATER ELEVATION (feet, WGS84)
1-B1	1/23/2023	37.835693/-121.969209	15	458
1-B2	1/23/2023	37.835554/-121.968425	15	461
1-B3	1/23/2023	37.835496/-121.968193	15	461
1-B4	1/24/2023	37.8352332/-122.9673395	15	464
1-B5	1/24/2023	37.83513/-121.967127	15	465
2-CPT1	5/23/2025	37.83571/-121.96948	16	456
2-CPT2	5/23/2025	37.83552/ -121.96833	16	461
2-CPT3	5/23/2025	37.83521/-121.96734	17	463

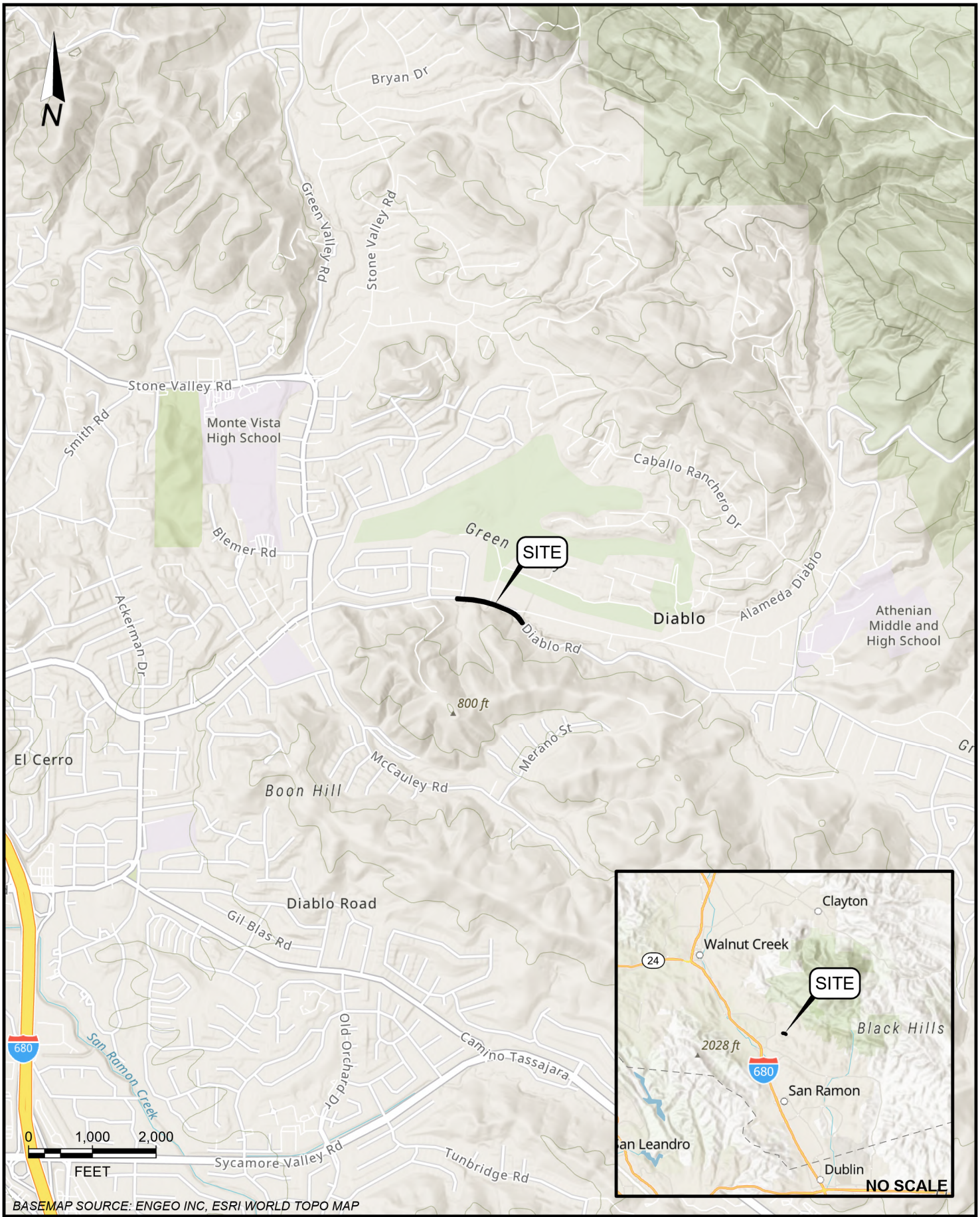
3.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This GDR was prepared for the use of the Town of Danville and their consultants for the Diablo Road Pedestrian Trail Project. This report may not provide all the information needed by the Town of Danville and its consultants for the future development of the site. This GDR may be made available to potential bidders and the project's construction contractor as a reference document only. This GDR is not a construction document and should not be construed as a construction document.

The geotechnical data provided in this report is presented within the limits prescribed by the client, in accordance with generally accepted professional engineering practices. We determined the lines designating the interface between layers on the exploration logs using visual observations. The transition between the materials may be abrupt or gradual. The exploration logs contain information concerning samples recovered, indications of the presence of various materials such as clay, sand, silt, rock, existing fill, etc., and observations of groundwater encountered. The field logs also contain our interpretation of the subsurface conditions between sample locations. Therefore, the logs contain both factual and interpretative information. No warranty, either express or implied, is made.

FIGURES

FIGURE 1: Vicinity Map
FIGURE 2: Site Plan



BASEMAP SOURCE: ENGEO INC, ESRI WORLD TOPO MAP

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VICINITY MAP

DIABLO ROAD TRAIL

DIABLO, CALIFORNIA

PROJECT NO.:	8870.000.011
SCALE:	AS SHOWN
DRAWN BY: MMH	CHECKED BY: JDB

FIGURE NO. 1

ORIGINAL FIGURE PRINTED IN COLOR

PATH: G:\DRAFTING\PROJECTS\8870\8870000011\GEOTECH\GEX\DIABLO ROAD TRAIL GEX.APRX
LAYOUT: 01. VICINITY 8.5 X 11 PORTRAIT USER: MHAWKINS

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BASEMAP SOURCE: GOOGLE EARTH MAPPING SERVICE 2025

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- Project Site
- Cone Penetration Test (ENGEO, 2025)
- Boring (ENGEO, 2023)

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SITE PLAN

DIABLO ROAD TRAIL

DANVILLE, CALIFORNIA

PROJECT NO.:	8870.000.011
SCALE:	AS SHOWN
DRAWN BY: MMH	CHECKED BY: JDB

FIGURE NO. 2

ORIGINAL FIGURE PRINTED IN COLOR

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PATH: G:\DRAFTING\PROJECTS\8870\8870000011\GEOTECH\GEX\DIABLO ROAD TRAIL GEX.APRX
LAYOUT: 02. SITE PLAN 8.5 X11 LANDSCAPE USER: MHAWKINS

APPENDIX A

KEY TO BORING LOGS
GEOTECHNICAL EXPLORATION LOGS

KEY TO BORING LOGS

MAJOR TYPES			DESCRIPTION
COARSE-GRAINED SOILS MORE THAN HALF OF MAT'L LARGER THAN #200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW - Well graded gravels or gravel-sand mixtures
			GP - Poorly graded gravels or gravel-sand mixtures
		GRAVELS WITH OVER 12 % FINES	GM - Silty gravels, gravel-sand and silt mixtures
			GC - Clayey gravels, gravel-sand and clay mixtures
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW - Well graded sands, or gravelly sand mixtures
			SP - Poorly graded sands or gravelly sand mixtures
		SANDS WITH OVER 12 % FINES	SM - Silty sand, sand-silt mixtures
			SC - Clayey sand, sand-clay mixtures
FINE-GRAINED SOILS MORE THAN HALF OF MAT'L SMALLER THAN #200 SIEVE	SILTS AND CLAYS LIQUID LIMITS 50% OR LESS		ML - Inorganic silt with low to medium plasticity
			CL - Inorganic clay with low to medium plasticity
			OL - Low plasticity organic silts and clays
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%		MH - Inorganic silt with high plasticity
			CH - Inorganic clay with high plasticity
			OH - Highly plastic organic silts and clays
	HIGHLY ORGANIC SOILS		PT - Peat and other highly organic soils

GRAIN SIZES

U.S. STANDARD SERIES SIEVE SIZE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4 "	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS/FOOT (S.P.T.)[1]
VERY LOOSE	0-4
LOOSE	4-10
MEDIUM DENSE	10-30
DENSE	30-50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	APPROXIMATE SHEAR STRENGTH (PSF)[2]
VERY SOFT	0-250
SOFT	250-500
MEDIUM STIFF	500-1,000
STIFF	1,000-2,000
VERY STIFF	2,000-4,000
HARD	> 4,000

MOISTURE CONDITION

DRY	Absence of moisture, dusty, dry to touch
MOIST	Damp but no visible water
WET	Visible freewater

SAMPLER SYMBOLS

- Modified California (3-inch O.D.) Sampler
- California (2.5-inch O.D.) Sampler
- S.P.T. Split Spoon (2-inch O.D.) Sampler
- Shelby Tube
- Continuous Core
- Bag Samples
- Grab Samples
- No Recovery

LINE TYPES

- Solid - Layer Break
- Dashed - Gradational or approximate layer break

GROUND-WATER SYMBOLS

- Groundwater level during drilling
- Stabilized groundwater level

NOTES

1. Standard Penetration Tests (S.P.T.) number of blows for a 140-pound hammer falling 30 inches to drive a 2-inch O.D. (1-3/8-inch I.D.) sampler, assuming 60% hammer efficiency
2. Approximate shear strength measured in field at time of drilling in units of pounds per square foot

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FILE PATH: C:\Users\imccreery\OneDrive - ENGEO_Shared Files\BoreDM\Key to Borelogs\KeyToBoringLogs_BoreDM_rev1.dwg SAVE DATE: 6/12/2024 12:56:04 PM SAVED BY: imccreery

SOIL BORING 1-B1

LATITUDE: 37.83570 LONGITUDE: -121.96921

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/23/2023
HOLE DEPTH: 26.5 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~473 ft (WGS84)

LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
			ASPHALT, 10 inches.											
			AGGREGATE BASE, 6 inches.											
			CLAYEY SAND (**SC**), dark brown, loose, moist, fine-grained sand., approximately 40-50% fines,											
	470		Poorly graded sand lens.			14	33	10		20.6	97.5			
5			Olive brown, approximately 30% fines.			10								
	465		**SANDY LEAN CLAY** (**CL**), dark brown, medium stiff to stiff, moist, approximately 30% fine-grained sand.			10								
10			Stiff to very stiff			32				20.4	107.4	2*		
	460		**CLAYEY SAND** (**SC**), dark brown, medium dense, moist.											
15			Rootlets, carbonates.			27			25					
	455													

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SOIL BORING 1-B1

LATITUDE: 37.83570 LONGITUDE: -121.96921

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/23/2023
HOLE DEPTH: 26.5 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~473 ft (WGS84)
LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
			LEAN CLAY WITH SAND (CL), dark reddish brown mottled with bluish gray, very stiff, moist, approximately 20% sand, rootlets, carbonates.			47						3.5*		
	450													
25			**SANDY LEAN CLAY WITH SILT (CL)**, yellowish brown, stiff, carbonates.			29						1.75*		

Bottom of boring at 26½ feet below grade.
Groundwater encountered at approximately 15 feet at the time of drilling.

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SOIL BORING 1-B2

LATITUDE: 37.83555 LONGITUDE: -121.96843

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/23/2023
HOLE DEPTH: 31.5 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~476 ft (WGS84)
LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
			ASPHALT, 10 inches.											
	475		**AGGREGATE BASE**, 6 inches.											
			POORLY GRADED SAND WITH CLAY (**SP-SC**), dark brown, loose, moist, approximately 10% fines.			22								
			SANDY LEAN CLAY (**CL**), dark brown, stiff, moist, approximately 30% sand.											
5	470		**CLAYEY SAND** (**SC**), yellowish brown, medium dense, moist, approimately 30% fines.			27								
						20						1.75*		
			LEAN CLAY WITH SAND (**CL**), dark brown, stiff to very stiff, approximately 15-20% fines.											
10	465		Yellowish brown, carbonates, trace rootlets.			35						3.5*		
			SANDY LEAN CLAY (**CL**), dark yellowish brown, stiff to very stiff, moist, fine-grained sand, carbonates.		▽									
15	460					28			52					

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SOIL BORING 1-B2

LATITUDE: 37.83555 LONGITUDE: -121.96843

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/23/2023
HOLE DEPTH: 31.5 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~476 ft (WGS84)
LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
	455		**POORLY GRADED SAND WITH CLAY** (**SP-SC**), dark brown, medium dense, moist, approximately 10% fines, carbonates.			25								
25	450		**SANDY LEAN CLAY** (**CL**), dark brown, medium stiff, moist, approximately 30% sand.			15						1*		
30	445		Stiff, wet.			24						1.5*		

Bottom of boring at 31½ feet below grade. Groundwater encountered at approximately 15 feet at the time of drilling.

ENGEO
Expect Excellence

SOIL BORING 1-B3

LATITUDE: 37.83550 LONGITUDE: -121.96819

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/23/2023
HOLE DEPTH: 29 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~476 ft (WGS84)
LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
			ASPHALT, 10 inches.											
	475		**AGGREGATE BASE**, 6 inches.											
			CLAYEY SAND (**SC**), dark brown, loose, dry, low dry strength, approximately 15% fines.			16								
						18								
			Approximately 10% gravel, approximately 30% fines, rootlets present.											
5														
	470													
			LEAN CLAY (**CL**), dark brown, soft, moist, less than 10% sand.			10						0.5*		
			Sand lens.			16						0.5*		
										27.3	96.2	772		UC
10														
	465													
			POORLY GRADED SAND WITH CLAY (**SP-SC**), dark brown, medium dense, moist, approximately 10% fines, rootlets.			28								
										20.3	105.9			
15														
	460													
			Wet.											
			Clay lens, approximately 10% gravel.			25								

SOIL BORING 1-B3

LATITUDE: 37.83550 LONGITUDE: -121.96819

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/23/2023
HOLE DEPTH: 29 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~476 ft (WGS84)
LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
	455													
			SANDY LEAN CLAY (**CL**), yellowish brown, stiff, moist, approximately 40% sand, rootlets.			37						2.5*		
25	450		**LEAN CLAY WITH SAND** (**CL**), brown, hard, moist, approximately 20% sand, trace carbonates.			56						>4.5*		

Bottom of boring at 29 feet below grade.
Groundwater encountered at approximately 15 feet at the time of drilling.

ENGEO
Expect Excellence

SOIL BORING 1-B4

LATITUDE: 37.83523 LONGITUDE: -121.96734

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/24/2023
HOLE DEPTH: 26 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~479 ft (WGS84)
LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
			ASPHALT, 10 inches.											
			AGGREGATE BASE, 6 inches.											
			CLAYEY SAND (**SC**), dark brown, medium dense, dry to moist, approximately 30% fines, rootlets, carbonates.			16	35	18						
	475													
5			Yellowish brown, moist, no carbonates.			22				12.9				
						12								
	470		**SANDY LEAN CLAY** (**CL**), dark brown, medium stiff to stiff, moist, approximately 30% sand.											
10			**POORLY GRADED SAND WITH GRAVEL** (**SP**), dark brown, medium stiff, moist, approximately 20% gravel, rootlets.			23			33					
	465													
15						25								
			Stiff.											
	460													

SOIL BORING 1-B4

LATITUDE: 37.83523 LONGITUDE: -121.96734

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/24/2023
HOLE DEPTH: 26 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~479 ft (WGS84)
LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
			CLAYEY SAND (SC), dark brown, very dense, moist, fine-grained sand, fine-grained sand, approximately 30% fines.			85								
	455													
25			**CONGLOMERATE**, light brown, very strong, moderately weathered, sand, gravel.			56								

Bottom of boring at 26 feet below grade.
Groundwater encountered at approximately 15 feet at the time of drilling.

SOIL BORING 1-B5

LATITUDE: 37.83513 LONGITUDE: -121.96713

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/24/2023
HOLE DEPTH: 31.5 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~480 ft (WGS84)
LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
			ASPHALT, 10 inches.											
			AGGREGATE BASE, 6 inches.											
			POORLY GRADED SAND WITH CLAY (**SP-SC**), dark brown, medium dense, dry, approximately 10% fines, gravel, carbonates.			20								
5	475		**CLAYEY SAND** (**SC**), dark brown, medium dense, dry, fine-grained sand, approximately 30-40% fines.			18								
			SANDY LEAN CLAY (**CL**), brown, stiff, moist, approximately 40% sand, carbonates.			20						1.5*		
10	470		**POORLY GRADED SAND WITH GRAVEL** (**SP**), yellowish brown, medium dense, moist, approximately 15-20% gravel, rootlets.			34				15.6		1.5*		
15	465		Wet.		▽	22								
			SANDY LEAN CLAY (**CL**), yellowish brown, stiff, approximately 30-40% sand, rootlets.											

ENGEO
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SOIL BORING 1-B5

LATITUDE: 37.83513 LONGITUDE: -121.96713

Diablo Road Pedestrian Trail
Danville, CA
8870.000.011

DATE DRILLED: 01/24/2023
HOLE DEPTH: 31.5 ft
HOLE DIAMETER: 4.5 in
SURFACE ELEV.: ~480 ft (WGS84)
LOGGED BY / REVIEWED BY: KW / JB
DRILLING CONTRACTOR: West Coast Drilling
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Pulley

Depth (ft)	Elevation (ft)	Sampler Type	MATERIAL DESCRIPTION	Graphic Log	Water Levels	Blow Count (blows/ft) or Penetration Resistance	Liquid Limit	Plasticity Index	Fines (%)	Moisture Content (%)	Dry Density (pcf)	Compressive Strength (psf) *Field Approximation (tsf)	Shear Strength (psf) *Field Approximation (tsf)	Strength Test Type
			LEAN CLAY (**CL**), dark brown mottled with bluish gray, very stiff, moist, less than 10% sand, carbonates.			50						3*		
25	455		**LEAN CLAY WITH SAND** (**CL**), dark brown, very stiff, moist, approximately 20% sand, carbonates.			40						2*		
30	450		Stiff			37						2*		

Bottom of boring at 31½ feet below grade.
Groundwater encountered at approximately 15 feet at the time of drilling.

APPENDIX B

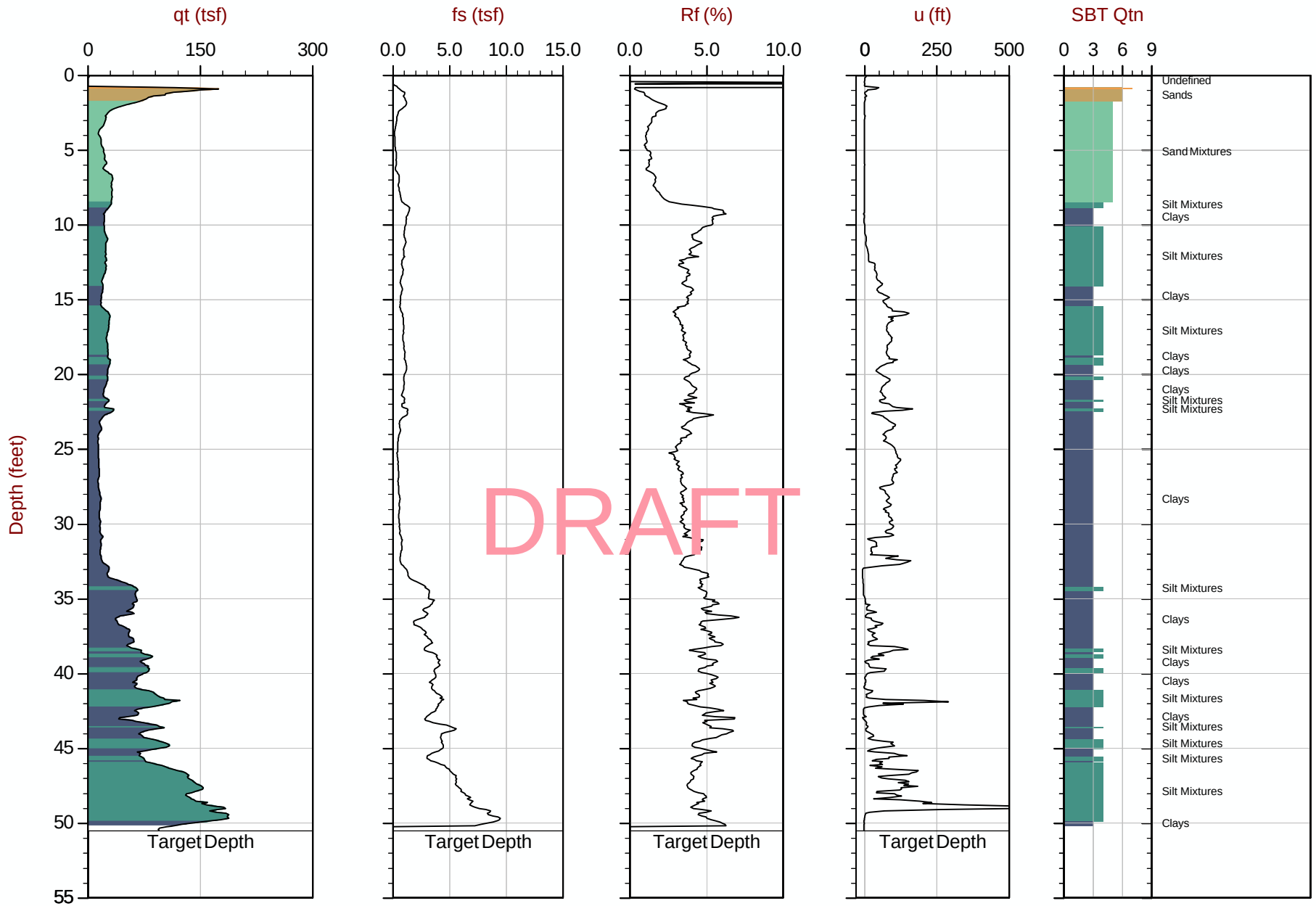
CONE PENETRATION TEST LOGS (ConeTec)

CONETEC

ENGEO

Job No: 25-56-29621
Date: 2025-05-23 12:32
Site: Diablo Road Pedestrian Trail

Sounding: CPT1
Cone: 813:T1500F15U35



DRAFT

Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-56-29621_CP01.dat
Unit Wt: SBTQtn (PKR2009)

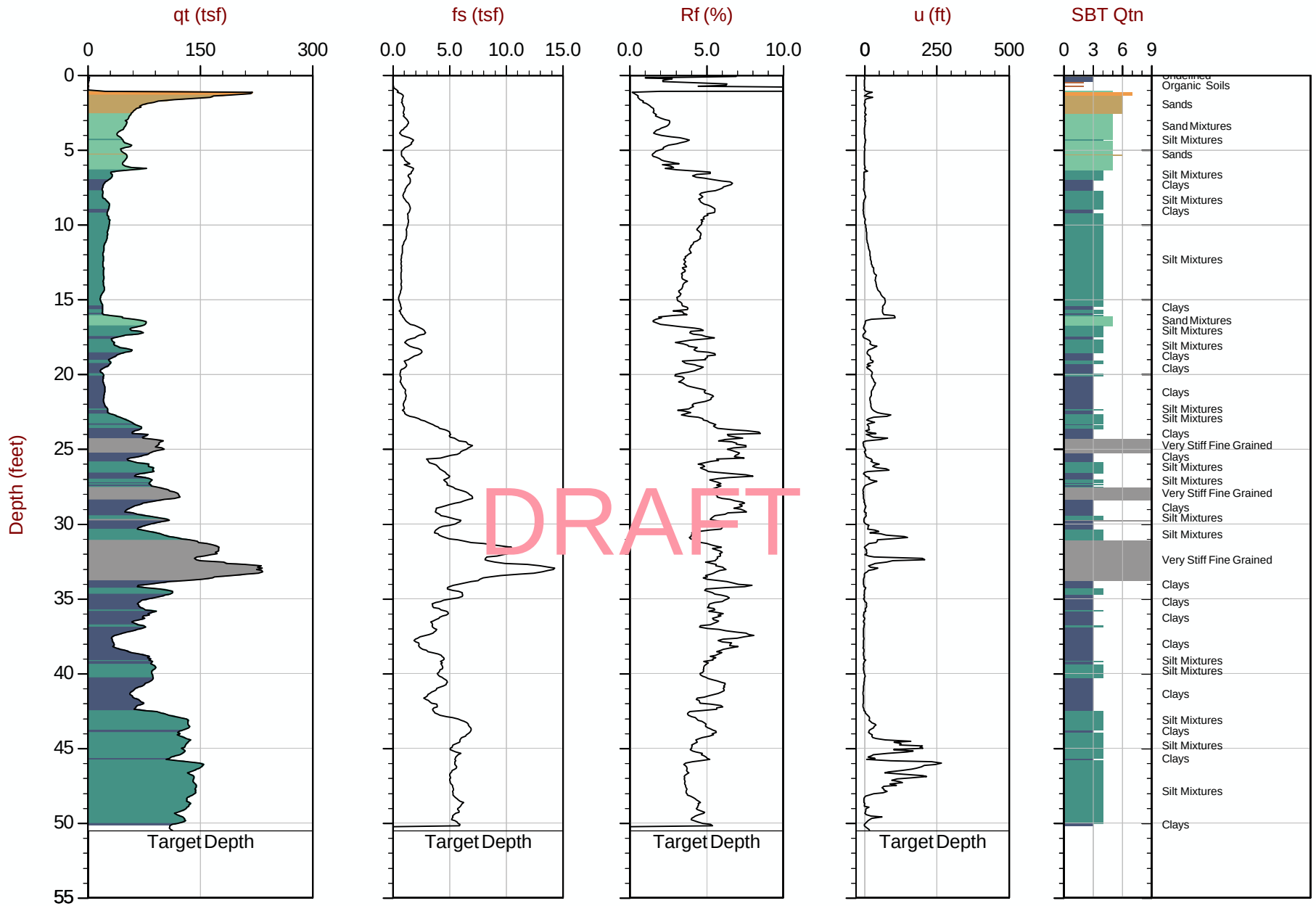
SBT: Robertson, 2009 and 2010
Coords: N: N/A E: N/A Elev: N/A
Page No: 1 of 1

CONETEC

ENGEO

Job No: 25-56-29621
Date: 2025-05-23 10:43
Site: Diablo Road Pedestrian Trail

Sounding: CPT2
Cone: 813:T1500F15U35



DRAFT

Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-56-29621_CP02.dat
Unit Wt: SBTQtn (PKR2009)

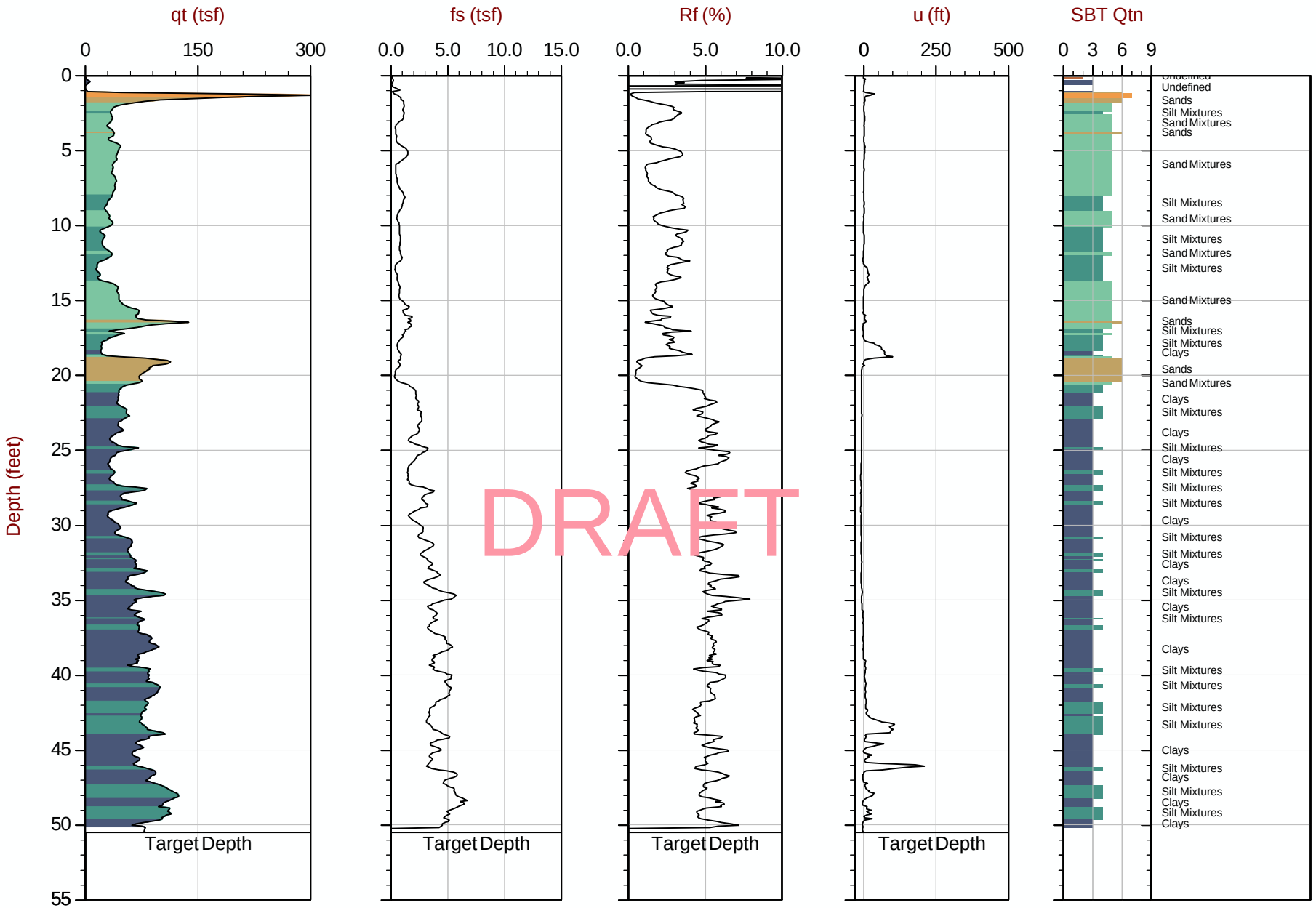
SBT: Robertson, 2009 and 2010
Coords: N: N/A E: N/A Elev: N/A
Page No: 1 of 1

CONETEC

ENGEO

Job No: 25-56-29621
Date: 2025-05-23 09:59
Site: Diablo Road Pedestrian Trail

Sounding: CPT3
Cone: 813:T1500F15U35



DRAFT

Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

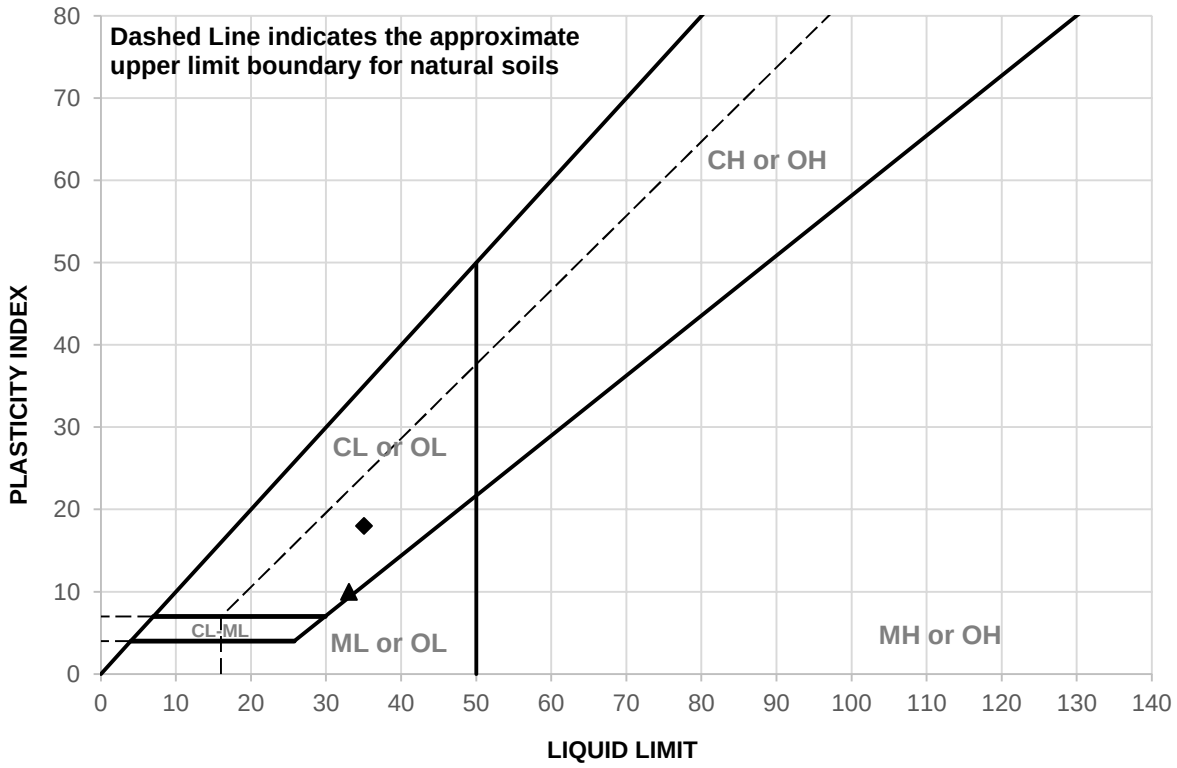
File: 25-56-29621_CP03.dat
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: N: N/A E: N/A Elev: N/A

APPENDIX C

GEOTECHNICAL LABORATORY TEST DATA

LIQUID AND PLASTIC LIMITS TEST REPORT
ASTM D4318



	SAMPLE ID	DEPTH (ft)	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B1@3-3.5	3-3.5	See exploration logs	33	23	10
◆	1-B4@2-3.5	2-3.5	See exploration logs	35	17	18

	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B1@3-3.5	PI: ASTM D4318, Wet Method	
◆	1-B4@2-3.5	PI: ASTM D4318, Wet Method	

ENGEO
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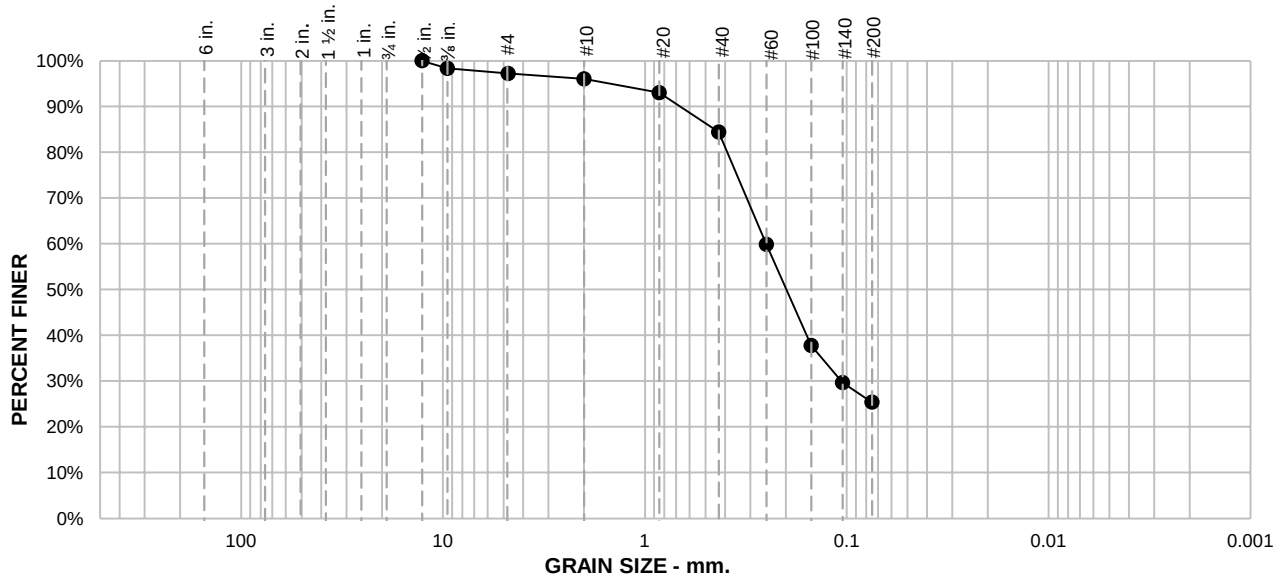
CLIENT: Town of Danville
PROJECT NAME: Diablo Road Pedestrian Trail
PROJECT NO: 8870.000.011 PH001
PROJECT LOCATION: Danville, California
REPORT DATE: 2/7/2023
TESTED BY: K. Nguyen
REVIEWED BY: G. Criste

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D422



SAMPLE ID: 1-B1@15-16.5'

DEPTH (ft): 15-16.5'

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
		2.8	1.2	11.6	59.0	25.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
½ in.	100.0		
⅜ in.	98.3		
#4	97.2		
#10	96.0		
#20	93.0		
#40	84.4		
#60	59.9		
#100	37.8		
#140	29.7		
#200	25.4		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = LL = PI =

COEFFICIENTS

D_{90} = 0.6702 mm D_{85} = 0.4509 mm D_{60} = 0.2506 mm

D_{50} = 0.1989 mm D_{30} = 0.1064 mm D_{15} =

D_{10} = C_u = C_c =

CLASSIFICATION

USCS =

REMARKS

USCS: ASTM D2488

* (no specification provided)

ENGEO
Expect Excellence

CLIENT: Town of Danville

PROJECT NAME: Diablo Road Pedestrian Trail

PROJECT NO: 8870.000.011 PH001

PROJECT LOCATION: Danville, CA

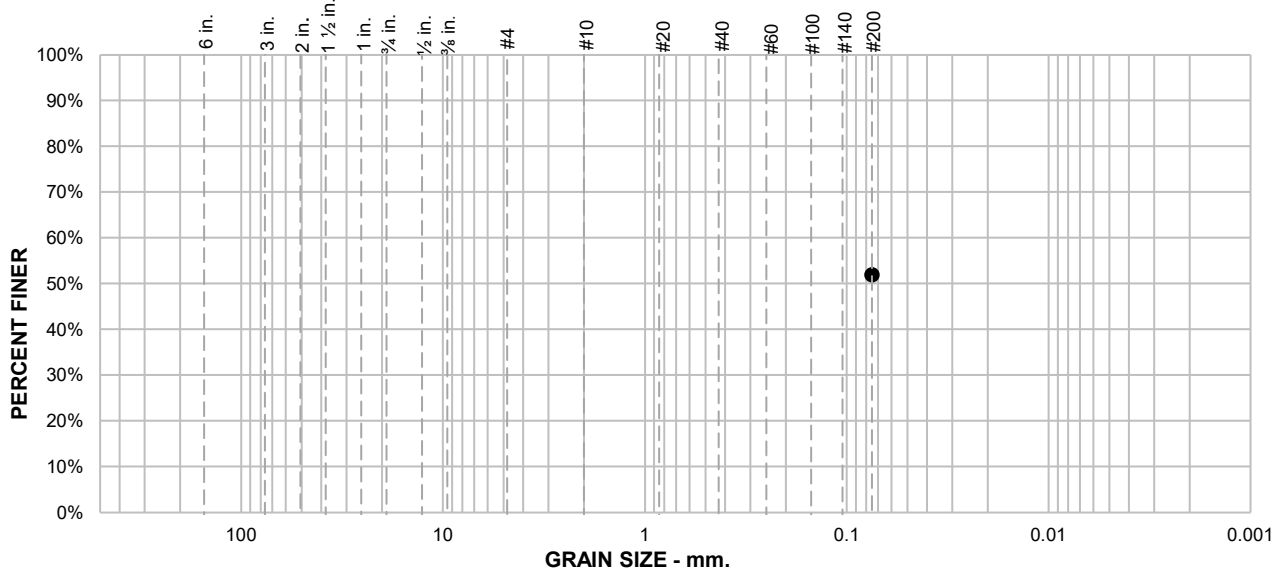
REPORT DATE: 2/1/2023

TESTED BY: O.Espinoza

REVIEWED BY: D. Seibold

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B2@16-16.5

DEPTH (ft): 16.0-16.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						51.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	51.9		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = LL = PI =

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS =

REMARKS

Soak time = 240 min
Dry sample weight = 355.2 g

* (no specification provided)

ENGEO
Expect Excellence

CLIENT: Town of Danville

PROJECT NAME: Diablo Road Pedestrian Trail

PROJECT NO: 8870.000.011 PH001

PROJECT LOCATION: Danville, California

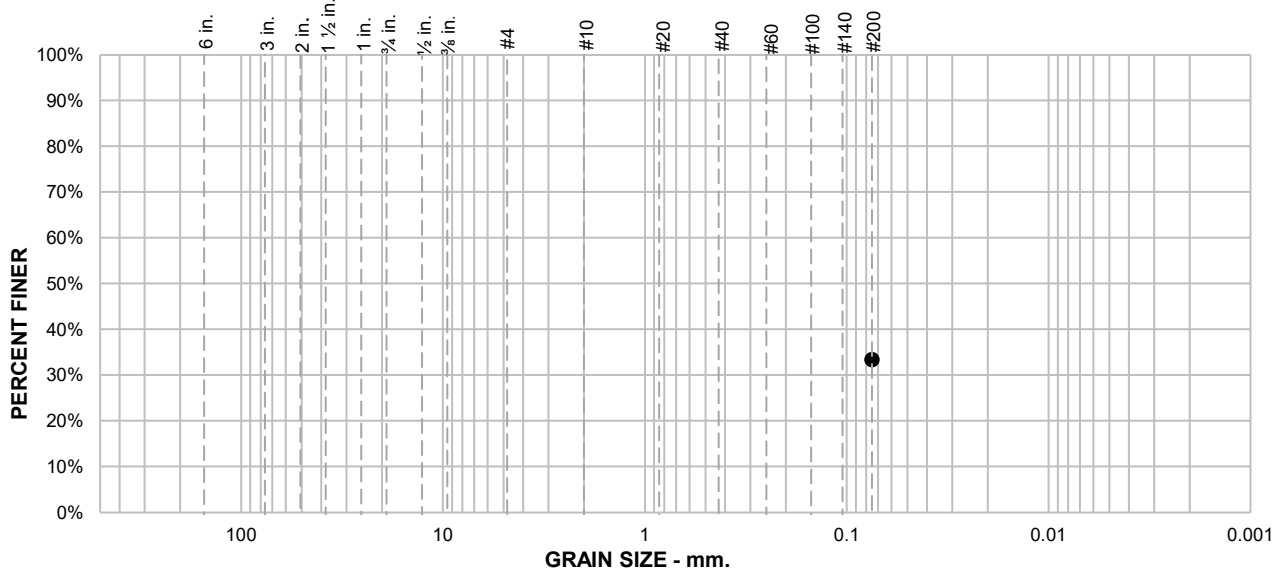
REPORT DATE: 2/6/2023

TESTED BY: O. Espinoza

REVIEWED BY: G. Criste

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B4@11-11.5

DEPTH (ft): 11.0-11.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						33.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	33.4		

SOIL DESCRIPTION

See exploration logs

ATTERBERG LIMITS

PL = LL = PI =

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS =

REMARKS

Soak time = 300 min
Dry sample weight = 619 g

* (no specification provided)

ENGEO
Expect Excellence

CLIENT: Town of Danville

PROJECT NAME: Diablo Road Pedestrian Trail

PROJECT NO: 8870.000.011 PH001

PROJECT LOCATION: Danville, California

REPORT DATE: 2/6/2023

TESTED BY: O. Espinoza

REVIEWED BY: G. Criste

MOISTURE CONTENT REPORT
ASTM D2216

SAMPLE ID	1-B4@ 5-6.5	1-B5@ 11-11.5						
DEPTH (ft.)	5.0-6.5	11.0-11.5						
METHOD A OR B	B	B						
MOISTURE CONTENT (%)	12.9	15.6						

ENGEO
Expect Excellence

CLIENT: Town of Danville
PROJECT NAME: Diablo Road Pedestrian Trail
PROJECT NO: 8870.000.011 PH001
PROJECT LOCATION: Danville, California
REPORT DATE: 2/3/2023
TESTED BY: O. Espinoza
REVIEWED BY: G. Criste

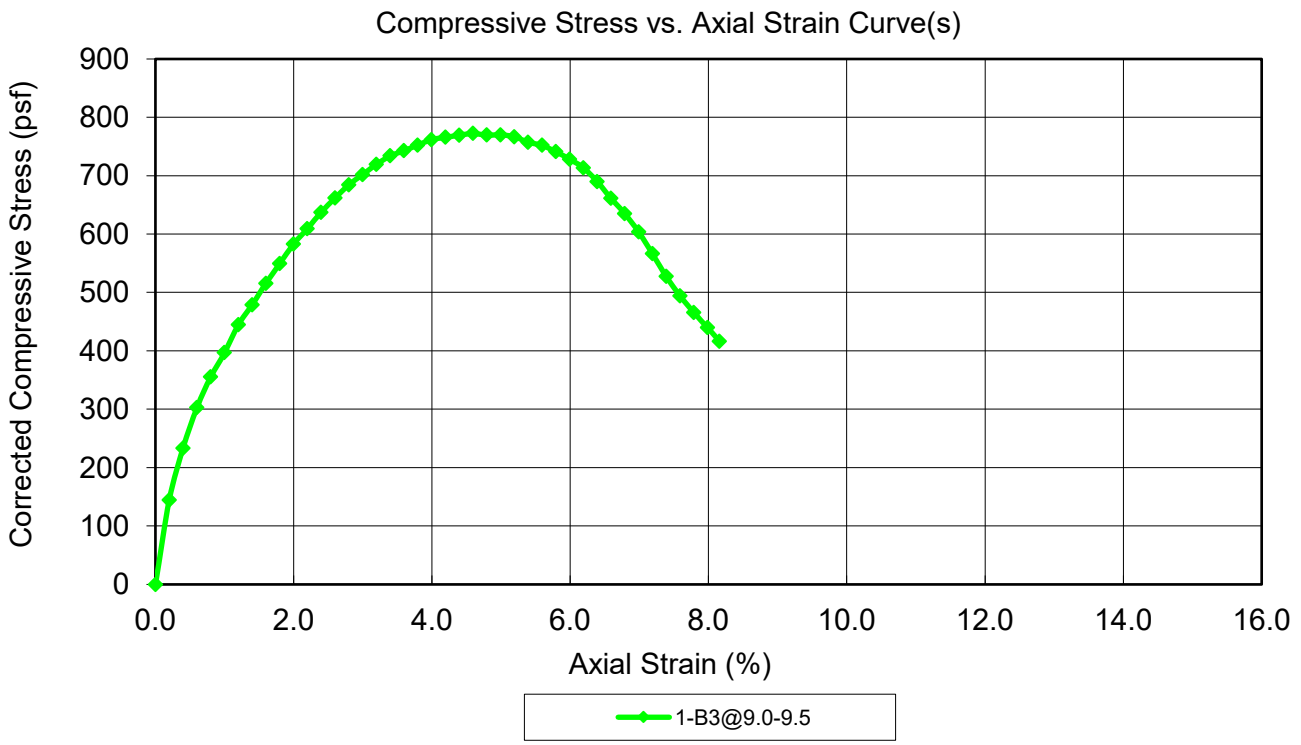
MOISTURE-DENSITY DETERMINATION REPORT
ASTM D7263

SAMPLE ID	1-B1@ 3-3.5	1-B1@ 11-11.5	1-B3@ 14-14.5					
DEPTH (ft.)	3.0-3.5	11.0-11.5	14.0-14.5					
METHOD A OR B	B	B	B					
MOISTURE CONTENT (%)	20.6	20.4	20.3					
DRY DENSITY (pcf)	97.5	107.0	105.9					

ENGEO
Expect Excellence

CLIENT: Town of Danville
PROJECT NAME: Diablo Road Pedestrian Trail
PROJECT NO: 8870.000.011 PH001
PROJECT LOCATION: Danville, California
REPORT DATE: 2/3/2023
TESTED BY: O. Espinoza
REVIEWED BY: G. Criste

UNCONFINED COMPRESSION TEST REPORT
(ASTM D2166)



BEFORE TEST	SPECIMEN 1-B3@9.0-9.5
Test Moisture Content (%)	27.32
Dry Density (pcf)	96.2
Saturation (%)	97.0
Void Ratio	0.77
Diameter (in)	2.395
Height (in)	5.009
Height-To-Diameter Ratio	2.09
TEST DATA	
Unconfined Compressive Strength (psf)	772.4
Undrained Shear Strength (psf)	386.2
Strain Rate (in/min)	0.050
Specific Gravity (ASSUMED)	2.720
Strain at Failure(%)	4.59
Test Remarks	

SPECIMEN	DESCRIPTION
1-B3@9.0-9.5	See exploration logs

PROJECT NAME: Diablo Road Pedestrian Trail
PROJECT NO: 8870.000.011 PH011
CLIENT: Town of Danville
LOCATION: Danville, California

Test Date: 2/3/2023
Tested By: O. Espinoza
Reviewed By: G. Criste

ENGEO
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ENGEO

Expect Excellence