

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 retentions.

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 Contract 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 Performedated 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 contractor 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)

“ DIABLO ROAD PEDESTRIAN TRAIL AND DRAINAGE IMPROVEMENT PROJECT “

“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, completing 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 25 th 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 CONTROL 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 Item 3 "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.

Tree Removals:

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.

Tree Trimming:

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 be 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 ENGEEO, 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 ENGEEO.
- 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 sheepfoot 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 soldier 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 Soldier 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.

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

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 Wall

The contractor shall backfill and provide geogrid behind the wall in accordance with the project Plans for Soldier 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 soldier 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 is 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 plants 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 californica*).

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 brachyantrorum)	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 $\frac{1}{8}$ to $\frac{1}{2}$ 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.