



CITY OF RICHMOND

Department of Public Works

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NOTICE TO CONTRACTORS  
BID PROPOSAL  
AND  
SPECIAL PROVISIONS  
FOR

SANTA RITA ROAD  
STABILIZATION PROJECT

**SEPTEMBER 2023**

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SANTA RITA ROAD STABILIZATION PROJECT

The special provisions contained herein have been prepared for construction by or under the direction of the following Registered Persons.

\_\_\_\_\_  
Ken Cheng, Senior Civil Engineer  
Registered Civil Engineer, RCE No. C94227

\_\_\_\_\_  
Date

Approved:

\_\_\_\_\_  
Robert Armijo, Deputy Public Works Director/City Engineer  
Registered Civil Engineer, RCE No. C63173

\_\_\_\_\_  
Date

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City of Richmond  
Department of Public Works

INTRODUCTION

1. CONTRACT DOCUMENTS

All documents included in the Project Specifications shall constitute part of the contract (hereinafter called "Contract Documents") for the completion of the project.

2. PROJECT

The Project (hereinafter in the Contract Documents and in the Contractual Agreement signed by the Contractor called "Project") to be completed by the Contractor is defined as follows:

SANTA RITA ROAD STABILIZATION PROJECT

3. DEFINITIONS

The following terms as used in the Contract Documents and in the Contractual Agreement signed by the Contractor shall have the meanings set forth below:

"City" shall mean the City of Richmond, California.

"Contract" shall mean both the Contract Documents and the Contractual Agreement for the completion of the Project which is signed by the Contractor.

"Contractor" shall mean the bidder who signs the Contractual Agreement for the Project substantially in the form set forth in the Contract Documents labeled, "Contractual Agreement Form."

"Department" shall mean the City of Richmond, California.

"Engineer" shall mean the City Engineer or his designated representative.

"Local Public Agency" shall mean the City of Richmond, California.

"Standard Specifications" shall mean 2018 edition of the State of California Department of Transportation Standard Specifications.

"City Standard Details" shall mean the Standard Details

END OF INTRODUCTION

CITY OF RICHMOND  
DEPARTMENT OF PUBLIC WORKS

INVITATION FOR BIDS

**BID OPENING:** The City of Richmond will receive sealed bids for the Santa Rita Road Stabilization Project electronically through BidsOnline until 8:00 a.m. on Wednesday, October 18, 2023. All bid forms must be electronically submitted by the due date and time or the bid will not be considered.

**NON-MANDATORY PRE-BID MEETING:** A non-mandatory pre-bid meeting will be held at 11:00 a.m., Wednesday, October 04, 2023 at 2929 Salvino Court. The project team will be available to answer questions related to the bid documents and the project. The pre-bid meeting will last approximately 1 hour.

**QUESTIONS:** All questions relative to this bid must be submitted via the electronic BidsOnline system on the Q&A tab by 5:00 p.m. PST on Wednesday, October 11, 2023<sup>1</sup>. If the City of Richmond finds it necessary to issue an addendum, prospective bidders will receive e-mail notification of the addendum. Otherwise, answers to questions received will be provided on the Q&A tab and notification will be sent accordingly. It is the bidders responsibility to periodically check the BidsOnline website, [www.ci.richmond.ca.us/bids](http://www.ci.richmond.ca.us/bids) for any possible Addenda to the bid that may have been posted.

**WORK DESCRIPTION:** In general, the project consists of installing a temporary emergency soldier pile retaining wall to isolate the landslide from Santa Rita Road. The wall is to be located in the right of way of Santa Rita Road and on City of Richmond Property. The work consists of clearing and grubbing, temporary traffic control, erosion control, earthwork, installation of a soldier pile retaining wall and lagging, backdrain construction, backfill, disposal of soil spoils, construction of chain link fence and gate, construction of guardrail, and backfill and compaction behind the wall. Additive alternate work includes construction of a rock revetment, willow planting, additional lagging installation, and tarp removal and disposal.; and for all other work, items, or details including demolition and removals, that are required by the Drawings, State Standard Specifications, of these Special Provisions.<sup>1</sup>

The Engineer's Estimate of Probable Construction Cost for the Base Bid Work is approximately: **\$700,000** (Base Bid).

**BID DOCUMENTS:** Bid Documents can be obtained from the City of Richmond's website [www.ci.richmond.ca.us/bids](http://www.ci.richmond.ca.us/bids). To download documents, new vendors will be required to register. Once the vendor downloads any documents relative to a solicitation, that vendor's name will

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<sup>1</sup> Addendum #1

appear on the prospective bidders list for that project and will receive any addenda or notifications relating to this bid.

**BID DEPOSIT:** A certified check or bank draft, payable to the order of the City of Richmond, negotiable U.S. Government Bonds (at par value) or a satisfactory Bid Bond executed by the Bidder and an acceptable surety, in an amount equal to ten percent (10%) of the total bid shall be submitted with each bid. A bidder shall not be relieved of the bid unless by consent of the City nor shall any changes be made in the bid because of mistake, but a bidder may bring an action in the Superior Court of Contra Costa County for recovery of any amount forfeited, without interest or costs. A bidder who claims a mistake or who forfeits his or her bid security shall be prohibited from participating in further bidding on the project.

**WITHDRAWAL OF PROPOSALS:** Any bid may be withdrawn at any time prior to the time fixed in the public notice for the opening of bids only by written request for the withdrawal of the bid filed with the City Clerk. The request shall be executed by the bidder or its duly authorized representative. The withdrawal of a bid does not prejudice the right of the bidder to file a new bid. Whether or not bids are opened exactly at the time fixed in the public notice for opening bids, a bid will not be received after that time nor may any bid be withdrawn after the time fixed in the public notice for opening of bids.

**DISQUALIFICATION OF BIDDERS:** More than one proposal from an individual, firm, partnership, corporation, or combination thereof under the same or different names will not be considered. Reasonable grounds for believing that any individual, firm, partnership, corporation, or combination thereof is interested in more than one proposal for the work contemplated may cause the rejection of all proposals in which such individual, firm, partnership, corporation, or combination thereof is interested. If there is reason for believing that collusion exists among the bidders, any or all proposals may be rejected. Proposals in which the prices obviously are unbalanced may be rejected as not responsive.

**PREVIOUS DISQUALIFICATION, REMOVAL, OR OTHER PREVENTION OF BIDDING:** A bid may be rejected on the basis of a bidder, any officer of such bidder, any employee of such bidder who has a proprietary interest in such bidder, or any listed subcontractor, having been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local project because of a violation of any law or any safety regulation.

**RESPONSIBILITY FOR VERIFYING CONTRACT ADDENDA:** All bidders shall verify if any addenda for this project have been issued by the City of Richmond. It is the bidders' responsibility to ensure that all requirements of contract addenda are included in the bidder's proposal. All bidders shall include a signed copy of all contract addenda with the proposal. Failure to comply with this requirement shall cause the proposal to be considered as non-responsive and shall be grounds for rejection of the bid.

**CONTRACTOR'S LICENSE:** All bidders are subject to California contractor's licensing laws and the provisions of Business and Professions Code Section 7028.15. A California Type A Contractor's license is required to bid this Contract. Joint ventures must secure a joint venture



license prior to award of this Contract. A Concrete Contractor's Type C-8 license must be held by the Contractor or as a listed sub-contractor. Other licenses may be required for additional specialty work.

MINIMUM WAGE RATES: Not less than the minimum salaries and wages as set forth in the Contract Documents must be paid on this project, and that the Contractor must ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex or national origin.

BID REVIEW: Bids may be held by the City of Richmond for a period not to exceed sixty (60) days from the date of the opening of Bids for the purpose of reviewing the Bids and investigating the qualifications of Bidders, prior to awarding of the Contract.

CITY'S RIGHT TO REJECT BIDS: The City of Richmond reserves the right to reject any or all Bids, or to waive any informality or minor irregularity in the bids.

BID PREPARATION COSTS: Bidders are solely responsible for the cost of preparing bids.

City of Richmond, a Municipal Corporation

Pamela Christian  
City Clerk

END OF INVITATION FOR BIDS

Invitation for Bids

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CITY OF RICHMOND  
DEPARTMENT OF PUBLIC WORKS  
INSTRUCTIONS TO BIDDERS

1. GENERAL INFORMATION

- A. Bids are invited for construction for the Santa Rita Road Stabilization Project.
- B. Sealed bids will be received up to the time and date as indicated in the Invitation to Bid or as modified by Addenda. Bids received after that time will not be accepted.
  - 1. Bids will be opened publicly via BidsOnline. Please visit the City's website at [www.ci.richmond.ca.us/bids](http://www.ci.richmond.ca.us/bids) to register as a vendor, to order bid documents, and to submit bid documents.

2. SITE VISIT

Bidders are strongly encouraged to visit the sites of the proposed work and fully acquaint themselves with the existing conditions. Bidders should fully inform themselves as to the facilities involved, the difficulties and restrictions attending the performance of the contract. Bidders should thoroughly examine and familiarize themselves with the Specifications and all other Contract Documents. The Contractor, by the execution of this Contract, shall in no way be relieved of any obligation under it, due to Contractor's failure to receive or examine any form or legal instrument, or to visit the site and acquaint themselves with the existing conditions. The owner will reject any claim based on facts regarding which the bidder should have been aware as a result of visiting the site or reading the Contract Documents.

3. PROPOSAL

To receive consideration, bids shall be made in accordance with the following instructions:

- A. Bids shall be made upon the proposal form contained herein. All items shall be properly filled in; numbers shall be stated both in writing and in figures. The signatures shall be original. Any alterations, interlineations, or erasures must be initialed.
- B. Bids shall be submitted only upon the items of bid stated in the specifications; bids upon other basis will not be considered. Bids that do not reference all addenda or that are not submitted on the prescribed forms may be rejected.
- C. The City reserves the right to accept bids on work and alternatives listed in the bid form

- in sum total or individually or in any combination unless the bid form makes specific provision to the contrary.
- D. Unless called for, alternative bids will not be considered.
- E. Modification of bids already submitted will be considered only if received at the office designated in the invitation for bids by the time set for opening of bids.
- F. Pursuant to the provisions of Section 4100 through 4113 of the Public Contracts Code of the State of California, every bidder shall, in his bid, set forth:
- 1) The Name and Location of the place of business of each subcontractor who will perform work or labor or render service to the bidder in or about the work in an amount in excess of one-half of one percent of the bidder's total bid.
  - 2) The portion of the work that will be done by each such subcontractor.
- G. In the event that alternative bids are called for and bidder intends to use different or additional subcontractors on the alternative or alternatives, he shall fill out additional forms of the Subcontractors List and shall indicate on such forms whether they apply to the base or alternative bids.
- H. If the bidder fails to specify a subcontractor for any portion of the work to be performed under the Contract in excess of one-half of one percent of the bidder's total bid or, in the case of bids for the construction of streets and highways, including bridges, in excess of one-half of one percent of the total bid, or \$10,000, whichever is greater, he agrees to perform that portion himself. The successful bidder shall not, without the consent of the City, either:
- 1) Substitute any person, firm, or corporation as subcontractor in place of the subcontractor designated in the original bid, or
  - 2) Permit any subcontract to be assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the bid.
- I. Bids shall be accompanied by a certified or cashier's check, or an acceptable bidder's bond for an amount not less than ten percent (10%) of the bid, made payable to the order of the City of Richmond, California. Said check or bond shall be given as a guarantee that the bidder will timely enter into a Contract and provide all required insurance and bonds if awarded the work. In the case of refusal or failure to timely provide all required documents and enter into said Contract, the check or bond, as the case may be, shall be forfeited to the City of Richmond, California, as provided by law.
- J. Before submitting a bid, bidders shall carefully examine the Plans, Specifications, and the form of Contract, shall visit the site of work, and shall fully inform themselves as to

all existing conditions and limitations, and shall include in the bid a sum to cover the cost of all items included in the Contract.

- K. Bidders shall give unit prices for each and all of the items set forth. No aggregate bids will be considered. The bidder shall set forth for each item of work, in clearly legible figures, a unit item price and a total for the item in the respective spaces provided for this purpose. The quantities listed in the Bid Sheets are supplied to give an indication of the general scope of work, but the accuracy of figures is not guaranteed and the bidder shall make its own estimates from the Plans and Specifications. In case of a variation between the unit price and the totals shown by the bidder, the unit price will be considered to be the bid price, and the bid total will be conformed accordingly.
  - L. Bids, and modifications thereof, if any, shall be delivered to the office of the City Clerk, City of Richmond, County of Contra Costa, California, on or before the day and hour set for the opening of bids in the Notice Inviting Bids, enclosed in a sealed envelope, and bearing the Project No. and Title of the work and the name of the bidder.
  - M. The contract may not be awarded to a Contractor who is ineligible pursuant to Section 1771.1 or 1777.7 of the Labor Code, nor may any subcontract be awarded to a subcontractor that who is ineligible pursuant to Section 1771.1 or 1777.7 of the Labor Code. In accordance with Section 1771.1 of the California Labor Code, a contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to California Labor Code section 1725.5. In accordance with Section 1771.4 of the California Labor Code, this Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
4. CONTRACTOR'S LICENSE

No bid may be considered from a Contractor who, at the time the contract is awarded, is not licensed to perform the project in accordance with Division 3, Chapter 9, of the Business and Professions Code of the State of California. In the event of a dispute as to the

classification of license required, the decision of the Contractor's State License Board shall prevail. The classification of Contractor's license required in the performance of this Contract is a Class A or C-12. Please note that there are other licensing requirements for particular items of work (e.g. landscaping); this licensing requirement may be satisfied by a listed subcontractor at time of bid.

#### 5. TIME LIMITS OF WORK

The work to be performed shall be completed within **75 working days** for Base Bid work after execution of contract and Notice to Proceed has been issued. No additional working days will be compensated for the alternate additional bid items.

#### 6. WITHDRAWAL OF BIDS

Bids may be withdrawn by written request received from bidders prior to the time set for opening of bids.

#### 7. INTERPRETATION OF PLANS AND SPECIFICATIONS

If there is doubt about the meaning of any part of Contract Documents, submit written request to the City of Richmond thru the BidsOnline Q&A tab.

Request for interpretations shall be delivered by the date and time indicated in the Invitation to Bid.

Bids shall be based only on interpretations as issued in addenda.

#### 8. ADDENDA OR BULLETINS

Any Addenda or information issued during the time of bidding, or forming a part of the documents loaned to the bidder for the preparation of his bid, shall be noted in the bid in the place provided and shall be made a part of the Contract.

#### 9. AWARDING OR REJECTION OF BIDS

The City reserves the right to reject the bid of any or all bidders, and to waive any informality in the bids received.

#### 10. LAWS AND ORDINANCES

A. The successful Contractor and all subcontractors used in the work will be required to hold or to obtain a City of Richmond business license for which the fee will not be

waived. Prior to the start of work, the successful Contractor shall obtain all other required permits from the City of Richmond, for which the fees will not be waived. The successful Contractor shall also obtain any other permits required from other agencies for the completion of the project, for which the fees will not be waived.

- B. If any Contractor, or any subcontractor used in the work by the Contractor, is currently in violation of any federal, state or local law or ordinance related to public works bidding or construction, the Contractor's bid may be deemed to be non-responsible.
- C. The Contractor and all subcontractors shall comply with the following City of Richmond Codes and Ordinances, which are incorporated into the Contract Documents by this reference:
1. Nondiscrimination Clause in City Contracts (RMC Chapter 2.28)
  2. Business Opportunity Ordinance No. 16-12 N.S. (RMC Chapter 2.50)
  3. Local Employment Program Ordinance No. 15-10 N.S. (RMC Chapter 2.56)
  4. Living Wage Ordinance No. 15-17 N.S.(RMC Chapter 2.60)
    - a. Except as provided in Section 2.60.080, the Living Wage Ordinance requires that an employer under contract valued at \$25,000 or greater and/or an employers with ten or more employees provide to its covered employees the following minimum compensation terms for the duration of the covered period:
      - Not less than \$16.17/hour if employer pays at \$1.50/hour/employee towards an employee medical benefits plan; or
      - Not less than \$17.67/hour if the employer does not provide the employees with such medical benefits plan.
  5. Ordinance Banning the Requirement to Provide information of Prior Criminal Convictions on all Employment Applications No. 14-13 N.S. (“Ban the Box”) (RMC Chapter 2.65)
  6. Sanctuary City Contracting and Investment Ordinance No. 12-18 N.S.
- D. City Ordinances may be found in their entirety at:  
<https://www.ci.richmond.ca.us>  
[https://library.municode.com/ca/richmond/codes/code\\_of\\_ordinances](https://library.municode.com/ca/richmond/codes/code_of_ordinances)
- E. For general information, questions, requests for clarification, or comments regarding

compliance with all local, state, and federal ordinances must be submitted in writing using the electronic BidsOnline system discussed in the Invitation to Bid. All clarifications and interpretations affecting the project will be issued by written addenda on the BidsOnline system. No interpretation or clarification given orally or separately will be effective to alter or affect the solicitation documents unless confirmed by written addendum.

## 11. CONTRACT BONDS

General - The successful bidder shall furnish to the City of Richmond a Performance Bond and a Payment Bond required by the State of California Contract Act. Said bonds shall be furnished in a form satisfactory to the City. Each of said bonds shall be executed in an amount equal to one hundred percent (100%) of the total bid.

Faithful Performance - Refer to Performance Bond.

Payment Bond – Refer to Payment Bond. The Payment Bond shall guarantee payment of all claims for labor, materials, provisions, provender and supplies furnished and any amounts required to be deducted withheld and paid over to the Franchise Tax Board from the wages of employees of the Contractor and his subcontractor pursuant to Section 18806 of the Revenue and Taxation Code. The bond shall satisfy all of the requirements set forth in Civil Code Section 3248.

Alterations - All alterations, extensions of time, extra and additional work, and other changes authorized by these Specifications or any part of the Contract may be made without securing the consent of the surety or sureties on the Contract bond.

## 12. SPECIAL NOTICE

Bidders are required to inform themselves fully of the conditions relating to construction and labor under which the work will be performed, and the Contractor must employ, so far as possible, such methods and means in the carrying out of his work as will not cause any interruption or interference with any other Contractor.

## 13. BIDDERS INTERESTED IN MORE THAN ONE BID

No person, firm, or corporation shall be allowed to make or file or be interested in more than one bid, as Prime Contractor for the same work. A person, firm, or corporation who has submitted a sub-proposal to a bidder, or who has quoted prices on materials to a bidder, is not hereby disqualified from submitting a sub-proposal or quoting prices to other bidders.

#### 14. BIDS TO BE LEFT ON DEPOSIT

Unless otherwise required by law, no bid, nor any part thereof, may be withdrawn by the bidder for a period of sixty (60) calendar days after the opening of the bids.

#### 15. MANDATORY NON-COLLUSION AFFIDAVIT

- A. The City will, before any award of the Contract is made, require any bidder to whom it may make an award of the principal Contract, to execute a Non-Collusion Affidavit.
- B. The City may require that the principal Contractor shall, before awarding any subcontract, secure from the proposed subcontractor a Non-Collusion Affidavit.

#### 16. INDEMNIFICATION AND INSURANCE

Attention is directed to Section 7-1.05, "Indemnification" of the State Standard Specifications and these Special Provisions.

Indemnification\_ Contractor shall indemnify, and shall cause all subcontractors to indemnify, the City in accordance with Section 3.4 of the Construction Agreement.

Insurance - Contractor shall provide and maintain the insurance requirements and limits as specified in the "City of Richmond – Insurance Requirements – Construction Projects", attached in Appendix B for the duration of the contract, agreement, or other order of work, services or supplies, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Contractor, its agents, representatives, employees, or subcontractors.

Insurance certificates and endorsements shall be reviewed and approved by the City's Risk Management before work may begin. The City of Richmond reserves the right to require complete, certified copies of all required insurance policies including endorsements affecting the coverage at any time.

Upon notification of receipt by the City of a Notice of Cancellation, major change in coverage or expiration, Contractor shall file with the City a certified copy of the required new renewal policy and certificates for such policies.

If at any time during the life of the Contract or any extension the Contractor fails to maintain the required insurance in full force and effect, all work under the Contract shall be discontinued immediately and all payments due or that become due to the Contractor will be withheld until notice is received by the City that the required insurance has been restored to full force and effect and that the premiums therefore have been paid for a



period satisfactory to the City. Any failure to maintain the required insurance will be sufficient cause for City to terminate the Contract

## 17. PERMITS

The Contractor shall obtain and pay for all building, plumbing, electrical, encroachment, and other permits required by the Contract, City Ordinance or any other agency, necessary for the construction of the work, unless otherwise specifically provided for in other contract documents. The Contractor and their subcontractors shall obtain and pay for all licenses required the City including a City business license. The Contractor and its sub-Contractor are required to secure a City encroachment permit; the Contractor at its option may include one or more of their sub-Contractors under their encroachment permit. There will be no fee for City issued permits.

See Appendix D for Environmental Agency Permits.

## 18. PREVAILING WAGE

- A. All Contractors and Subcontractors performing services under this Contract shall pay their employees providing such services a minimum hourly prevailing wage rate as further described below.
- B. In case of conflict between the Prevailing Wage as specified in this Section and any Federal Minimum Wage that may be specified elsewhere in these Specifications, the higher of the two shall prevail. Any amendments to the Federal Minimum Wage Determination issued up to 10 days prior to the bid opening date will become the part of the contract documents.
- C. The Contractor and any subcontractor under the Contractor shall comply with Labor Code Sections 1774 and 1775. Pursuant to Section 1775, the Contractor and any subcontractor under the Contractor shall forfeit to the State or political subdivision on whose behalf the contract is made or awarded a penalty of not more than fifty dollars (\$50) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for any public work done under the contract by the Contractor or by any subcontractor under the Contractor in violation of the requirements of the Labor Code and in particular, Labor Code Sections 1770 to 1780, inclusive. The amount of this forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of the mistake, inadvertence, or neglect of the Contractor or subcontractor in failing to pay the correct rate of prevailing wages, or the previous record of the Contractor or subcontractor in meeting their respective prevailing wage obligations, or the willful failure by the Contractor or subcontractor to pay the correct rates of prevailing wages. A mistake, inadvertence,

or neglect in failing to pay the correct rate of prevailing wages is not excusable if the Contractor or subcontractor had knowledge of the obligations under the Labor Code. In addition to the penalty and pursuant to Labor Code Section 1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or subcontractor. If a worker employed by a subcontractor on a public works project is not paid the general prevailing per diem wages by the subcontractor, the prime contractor of the project is not liable for the penalties described above unless the prime contractor had knowledge of that failure of the subcontractor to pay the specified prevailing rate of wages to those workers or unless the prime contractor fails to comply with all of the following requirements:

1. The contract executed between the contractor and the subcontractor for the performance of work on the public works project shall include a copy of the requirements in Sections 1771, 1775, 1776, 1777.5, 1813 and 1815 of the Labor Code.
  2. The contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the subcontractor to the employees, by periodic review of the certified payroll records of the subcontractor.
  3. Upon becoming aware of the subcontractor's failure to pay the specified prevailing rate of wages to the subcontractor's workers, the contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subcontractor for work performed on the public works project.
  4. Prior to making final payment to the subcontractor for work performed on the public works project, the contractor shall obtain an affidavit signed under penalty of perjury from the subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages to the subcontractor's employees on the public works project and any amounts due pursuant to Section 1813 of the Labor Code.
- D. Pursuant to Section 1775 of the Labor Code, the Division of Labor Standards Enforcement shall notify the Contractor on a public works project within 15 days of the receipt by the Division of Labor Standards Enforcement of a complaint of the failure of a subcontractor on that public works project to pay workers the general prevailing rate of per diem wages. If the Division of Labor Standards Enforcement determines that employees of a subcontractor were not paid the general prevailing rate of per diem wages and if the Department did not retain sufficient money under the contract to pay those employees the balance of wages owed under the general

- prevailing rate of per diem wages, the contractor shall withhold an amount of moneys due the subcontractor sufficient to pay those employees the general prevailing rate of per diem wages if requested by the Division of Labor Standards Enforcement. The Contractor shall pay any money retained from and owed to a subcontractor upon receipt of notification by the Division of Labor Standards Enforcement that the wage complaint has been resolved. If notice of the resolution of the wage complaint has not been received by the Contractor within 180 days of the filing of a valid notice of completion or acceptance of the public works project, whichever occurs later, the Contractor shall pay all moneys retained from the subcontractor to the Department. These moneys shall be retained by the Department pending the final decision of an enforcement action.
- E. Pursuant to the requirements in Section 1773 of the Labor Code, the City has obtained the general prevailing rate of wages (which rate includes employer payments for health and welfare, pension, vacation, travel time and subsistence pay as provided for in Section 1773.8 of the Labor Code, apprenticeship or other training programs authorized by Section 3093 of the Labor Code, and similar purposes) applicable to the work to be done, for straight time, overtime, Saturday, Sunday and holiday work. The holiday wage rate listed shall be applicable to all holidays recognized in the collective bargaining agreement of the particular craft, classification or type of workmen concerned.
- F. The general prevailing wage rates and any applicable changes to these wage rates are available from the California Department of Industrial Relations' Internet Web Site at: <http://www.dir.ca.gov>.
- G. The wage rates determined by the Director of Industrial Relations for the project refer to expiration dates. Prevailing wage determinations with a single asterisk after the expiration date are in effect on the date of advertisement for bids and are good for the life of the contract. Prevailing wage determinations with double asterisks after the expiration date indicate that the wage rate to be paid for work performed after this date has been determined. If work is to extend past this date, the new rate shall be paid and incorporated in the contract. The Contractor shall contact the Department of Industrial Relations as indicated in the wage rate determinations to obtain predetermined wage changes.
- H. Pursuant to Section 1773.2 of the Labor Code, general prevailing wage rates shall be posted by the Contractor at a prominent place at the site of the work.
- I. Changes in general prevailing wage determinations which conform to Labor Code Section 1773.6 and Title 8 California Code of Regulations Section 16204 shall apply

to the project when issued by the Director of Industrial Relations at least 10 days prior to the date of the Notice to Contractors for the project.

- J. The City of Richmond will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining the bid, and will not under any circumstances be considered as the basis of a claim against the City on the contract.

#### 19. GUARANTY

All work shall be guaranteed for a period of one (1) year from the date of acceptance by the City. The Contractor shall promptly make all needed repairs arising out of defective materials, workmanship and equipment.

The City is hereby authorized to make such repairs if within (10) days after giving written notice to the Contractor, or his agent, the Contractor should fail to make or undertake with due diligence the aforesaid repairs; provided, however, that in case of an emergency, where, in the opinion of the City, delay would cause serious loss or damage, repairs may be made without notice being sent to the Contractor, and the Contractor shall pay the costs thereof.

The Contractor shall, upon completion of the Contract and prior to filing of the Notice of Completion, post a Maintenance Bond in the amount of ten percent (10%) of the Contract value. The Maintenance Bond shall remain in full force and effect through the guaranty period of one (1) year.

#### 20. EXECUTION OF CONTRACT

The contract shall be signed by the successful bidder and returned, together with the contract bonds and insurance endorsements, within ten (10) working days after the bidder has received the contract documents.

#### 21. ASSIGNMENT

The performance of the Contract may not be assigned, except upon the written consent of the City. Consent will not be given to any proposed assignment that would relieve the original Contractor or its surety of their responsibilities under the Contract, nor will the City consent to any assignment of a part of the work under the Contract.

## 22. CONTRACTORS INDEPENDENT INVESTIGATION

No plea of ignorance of conditions that exist or that may hereafter exist or of conditions of difficulties that may be encountered in the execution of work under this Contract, as a result of failure on initial investigations or reports prepared by City for purposes of letting this Contract out to bid will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill in every detail all requirements of this Contract. Nor will such reasons be accepted as a basis for any claims whatsoever for extra compensation or for an extension of time.

## 23. SIGNATURE OF CONTRACTOR

Corporations:

The signature must contain the name of the corporation, must be signed by the President and Secretary or Assistant Secretary, and the corporate seal must be affixed. Other persons may sign for the corporation in lieu of the above if a certified copy of a resolution of the corporate board of directors so authorizing them to do so is on file in the City Clerk's office.

Partnerships:

The names of all persons comprising the partnership or co-partnership must be stated. The bid must be signed by all partners comprising the partnership unless proof in the form of a certified copy of a certificate of partnership acknowledging the signer to be a general partner is presented to the City Clerk, in which case the general partner may sign.

Joint Ventures:

Bids submitted as joint ventures must so state and be signed by each joint venture.

Individuals:

Bids submitted by individuals must be signed by the bidder, unless an up-to-date power of attorney is on file in the City Clerk's office, in which case said person may sign for the individual.

The above rules also apply in the case of the use of a fictitious firm name. In addition, however, where the fictitious name is used, it must be so indicated in the signature.

## 24. CONDITIONAL CONTRACT AWARD

Notwithstanding any action by the City Council of Richmond to award a contract to a bidder, all contract awards are expressly conditioned on the timely provision of all required

documents, including the executed Contract, to the City. The provision of all such documents is a condition precedent to the effectiveness of any contract award. Failure to provide any of the required documents may result in forfeiture of the bidders bid security as provided by law.

## 25. BID PROTEST

Any protest pertaining to the proposed award or any other matter relating to the bidding procedure must be submitted in writing to the City no later than 4:00 P.M. of the second business day following the date of bid opening. The protestor must have actually submitted a bid directly to the City on the Project or have been specifically excluded from filing a bid due to an action by the City. A subcontractor of a party filing a bid on this project may not submit a bid protest on its own accord. Each bid protest shall be accompanied by a check in the amount of \$500.00 payable to the City of Richmond for each protest and shall constitute a non-refundable fee to reimburse the City for its costs in reviewing and investigating the bid protest. The City will review the bid protest and will issue its determination within a reasonable amount of time prior to bid award. These procedures and time limits are mandatory and are the bidder's sole and exclusive remedy in the event of a bid protest.

END OF INSTRUCTIONS TO BIDDERS

City of Richmond  
Department of Public Works

**BID PROPOSAL**

DATE: \_\_\_\_\_

TO THE CITY CLERK OF RICHMOND, CALIFORNIA:

NAME OF BIDDER \_\_\_\_\_

BUSINESS P.O. BOX \_\_\_\_\_

BUSINESS STREET ADDRESS \_\_\_\_\_

(Please include even if P.O. Box used)

CITY, STATE, ZIP \_\_\_\_\_

TELEPHONE NO.      AREA CODE (    ) \_\_\_\_\_

FAX NO.              AREA CODE (    ) \_\_\_\_\_

CONTRACTOR LICENSE NO. \_\_\_\_\_

LICENSE EXPIRATION DATE \_\_\_\_\_

DEPARTMENT OF INDUSTRIAL RELATIONS NO. \_\_\_\_\_

**SANTA RITA ROAD  
STABILIZATION PROJECT**

The work to be done and referred to herein is in the City of Richmond, Contra Costa County, State of California. Construction to be in accordance with the Special Provisions including the payment of not less than the minimum wage rates set forth herein and the Contract annexed hereto and also in accordance with the State Standard Specifications dated 2018, and the current "Equipment Rental Rates and the Contractor is hereby notified that this project is subject to prevailing wage rates as described in the Instructions to Bidders.

To the City of Richmond Department of Public Services:

The undersigned, as Bidder, declares that the only persons or parties interested in this Proposal as principals are those named herein; that this Proposal is made without collusion with any other person, firm or corporation; that they have carefully examined the location of the proposed work; and the Plans therein referred to; and they propose, and agree if this Proposal is accepted, that they will contract with the City of Richmond to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the Contract, in the manner and time therein prescribed and according to the requirements of the Engineer as therein set forth, and that they will take in full payment therefor the following item prices to wit:

**END OF BID PROPOSAL**

City of Richmond  
 Department of Public Works

**BID SCHEDULE**

AL = Allowance    CF = Cubic Feet    CY = Cubic Yard    EA = Each    FA=Force Account  
 LF = Linear Foot    LS = Lump Sum    SF = Square Feet    TON = Ton (2000 lbs)    LB = Pounds

SANTA RITA ROAD STABILIZATION PROJECT					
ITEM NO.	DESCRIPTION OF WORK	EST. QTY.	UNIT	UNIT PRICE	TOTAL COST
	<b>Base Bid</b>				
1	Mobilization	1	LS		
2	Temporary Traffic Control	1	LS		
3	Erosion Control Plans and SWPPP	1	LS		
4	Clearing and Grubbing	1	LS		
5	Construction Staking	1	LS		
6	Wood Lagging	1290 <sup>2</sup>	SF		
7	Soldier Pile	18 <sup>1</sup>	EA		
7A	Tieback Anchors	26 <sup>2</sup>	EA		
8	Chain Link Fence	1	LS		
9	Guardrail	1	LS		
10	Erosion Control Blankets and Seeding	1	LS		
<b>TOTAL BASE BID<sup>1</sup></b>					

	<b>Additive Alternative<sup>1</sup></b>				
11	Add Alt#1 – Willow Staking	1	LS		

<sup>1</sup> Addendum #1

<sup>2</sup> Addendum#2



12	Add Alt#2 – Additional Wood Lagging	100	SF		
13	Add Alt#3 – Backfill Top of select Stitch piles with CLSM	16	CY		
14	Add Alt#4 – Tarp Removal and Disposal	1	LS		
15	Add Alt#5- Rock Revetment at toe of Landslide, ¼ ton size, filter fabric, includes excavation and placement	45	TONS		
<b>TOTAL ADDITIVE ALTERNATIVE<sup>1</sup></b>					

\*NOTE: In case of error in extension of price into the total price column, the unit price will govern.

BID SUMMARY		
<b>BASE BID</b>	TOTAL PRICE IN FIGURES	\$
	TOTAL PRICE IN WORDS	
<b>ADDITIVE ALTERNATIVE<sup>1</sup></b>	TOTAL PRICE IN FIGURES	\$
	TOTAL PRICE IN WORDS	

The basis of award for this project is the Base Bid. The amount of the bid for comparison purposes will be the total of all items.

The undersigned acknowledges the receipt of the following addenda to the drawings and specifications.

Addendum No.	Date	Addendum No.	Date
_____	_____	_____	_____
_____	_____	_____	_____

The undersigned hereby certifies that they understand and agree that the items listed as Bid Alternates may be incorporated into the Contract Documents at the discretion of the City depending on the financial resources available at the time the contract is awarded. The undersigned hereby certifies they understand and agree that regardless of whether the City incorporates the use

<sup>1</sup> Addendum #1

of the Bid Alternates, the Low Bidder will be determined by the Total Bid (as shown above); which is the total of the Base Bid.

The undersigned hereby certifies that he has an appropriate license, issued by the State of California to provide this work; that such license will be in full force and in effect throughout the duration of construction; and that any and all subcontractors to be employed on this project will be similarly licensed.

Dated \_\_\_\_\_ California Contractor's License No. \_\_\_\_\_

CONTRACTOR \_\_\_\_\_  
Signature Print or Type Name and Title

**REJECTION OF BIDS:**

The undersigned agrees that the City of Richmond reserves the right to reject any or all bids, and reserves the right to waive informalities in a bid or bids not affected by law, if to do so seems to best serve the public interest.

**TIME**

The undersigned agrees to furnish, within ten (10) working days from the receipt of the Notice of Award of Contract, the items required by Section SP-4 of the Special Provisions. The failure to timely provide such items may result in annulment of the award and forfeiture of the Proposal Guarantee.

The undersigned agrees to begin work within ten (10) working days after the date specified in the Notice to Proceed.

If the proposal is accepted, the undersigned agrees to execute the required agreement and furnish the required bonds within ten (10) working days from the date of signing of this Contract.

**BID DEPOSIT**

There is enclosed herewith, a certified check or surety bond in the sum of ten percent (10%) of the base bid \_\_\_\_\_ DOLLARS AND \_\_\_\_\_ CENTS (\$\_\_\_\_\_) made payable to the City of Richmond and the undersigned agrees that in case of his failure to execute the necessary contract and furnish the required bonds, the certified check or surety bond the money payable thereon, shall be and remain the property of the City.

NOTE: The estimated quantities listed in the Proposal Bid Sheet(s) are supplied to give an indication of the general scope of work, but the accuracy of these figures is not guaranteed and

Bidder shall make his own estimates from the drawings. In case of a variation between the unit price and the totals shown by Bidder, the unit price will be considered to be the bid.

The unit price or lump sum prices to be paid for the items listed in the Proposal Bid Sheet shall include full compensation for furnishing all labor, materials, tools, and equipment, and doing all work involved in furnishing and installing the materials complete and in place, in accordance with the details as shown on the plans and as specified herein. Any items shown on the plans, but not included in the bid items, shall be considered as appurtenant items. All costs shall be included within the appropriate item of the Contractor's bid.

**IMPORTANT NOTICE:** On a separate sheet of paper, provide the following information. If bidder is a corporation, state legal name of corporation and names of the president, secretary, treasurer, and manager; if co-partnership, state true name of firm and names of all individual co-partners composing firm; or, if individual, state first and last names in full.

_____ Officer's Signature	_____ Title	_____ Date
_____ Officer's Signature	_____ Title	_____ Date
_____ Officer's Signature	_____ Title	_____ Date

Signature and title of the officer(s) set forth above shall be authorized to sign contracts on behalf of the corporation, co-partnership, or individual. If signature is by an agent, other than an officer of the corporation or a member of a partnership, a Power of Attorney must be on file with the City prior to or at time of bid opening; otherwise, the bid will be subject to rejection by City Council.

Address of Bidder:

Corporate Seal:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

State of Incorporation

END OF BID SCHEDULE

City of Richmond  
Department of Public Works

**SUBCONTRACTOR FORM**  
*(Required Listing of Proposed Subcontractors)*

The Contractor certifies he/she has used the sub-bids of the following listed Contractors in making up his/her bid and that the sub-contractors listed will be used for the work for which they bid, subject to the approval of the City Engineer, and in accordance with applicable provisions of the specifications and Section 4100 et seq. of the Public Works Code – “Subletting and Subcontracting Fair Practices Act.” No changes may be made in these subcontractors except upon the prior approval of the City Engineer of the City of Richmond pursuant to Section 4107 of the Public Contracts Code. The following information is required for each subcontractor. Additional pages can be attached if required.

City will not accept a Bid Proposal from or enter into the Contract with a bidder, without proof that the bidder and its Subcontractors are registered with the California Department of Industrial Relations (“DIR”) to perform public work under Labor Code Section 1725.5, subject to limited legal exceptions.

Items of Work	Full Company Name	Richmond Firm?	Complete Address with Zip Code	Phone No. with Area Code

**SUBCONTRACTOR’S LIST** *(Continued)*

The bidder is to provide the following information on the sub bids of all the listed subcontractors as part of the sealed bid submission. Additional pages can be attached, if required.

Type of State Contracting License & Number	DIR Registration Number	Amount of Bid (\$ or %)

\*Licenses are renewable annually. If no valid license, indicate “NONE.” Valid license must be obtained prior to submission of signed contracts. This applies to all subcontractors.

NOTE: If alternate bids are called for, and Contractor intends to use different or additional subcontractors on the alternates, he/she must provide a separate list of subcontractors for each alternate.

\_\_\_\_\_  
Signature of Bidder

STATEMENT OF TECHNICAL ABILITY AND EXPERIENCE

The Bidder is required to state what work of a similar character to that included in the proposed Contract that he or she has successfully performed in the last 5 years, especially for public agencies. Provide the number of similar projects, their description, and references, which will enable the City to judge his or her responsibility, experience, skill, and financial standing. Detail any involvement, past or current, relative to litigation or other disputes, if any, concerning your performance.

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\_\_\_\_\_  
Signature of Bidder

**BIDDER'S STATEMENT OF PAST CONTRACT DISQUALIFICATIONS**

The Bidder is required to state any and all instances of being disqualified, removed, or otherwise prevented from bidding on or completing any contract for construction.

1. Have you ever been disqualified from any contract?

Yes \_\_\_ No \_\_\_

2. If yes, explain the circumstances:

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\_\_\_\_\_  
Signature of Bidder

END OF SUBCONTRACTOR FORM

City of Richmond  
Department of Public Works

**PUBLIC CONTRACT CODE**

**Public Contract Code Section 10285.1 Statement**

In accordance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the Bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder has\_\_\_\_\_ has not\_\_\_\_\_been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of any public works contract as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term “bidder” is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

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

**Public Contract Code Section 10162 Questionnaire**

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

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation? Yes\_\_\_\_\_ No\_\_\_\_\_

If the answer is yes, explain the circumstances in the following space.

**Public Contract Code Section 10232 Statement**



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

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

### WORKERS' COMPENSATION CERTIFICATION

I am aware of Section 3700 of the Labor Code, which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this contract.

\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

END OF PUBLIC CONTRACT CODE

City of Richmond  
Department of Public Works

DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

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

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

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

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

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

END OF DEBARMENT AND SUSPENSION CERTIFICATION

City of Richmond  
Department of Public Works

BIDDER’S NON-COLLUSION AFFIDAVIT

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

(Must be executed by Bidder and submitted with Bid)

State of California )  
 ) ss  
County of \_\_\_\_\_)

\_\_\_\_\_, being first duly sworn, deposes and says that he or she is  
of \_\_\_\_\_

\_\_\_\_\_,  
the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone, to fix the bid price of the bidder or any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged the information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or any member or agent thereof to effectuate a collusive or sham bid.

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_ 2023.

By: \_\_\_\_\_

\_\_\_\_\_  
Title

\_\_\_\_\_  
Notary Public

Date: \_\_\_\_\_

END OF BIDDER’S NON-COLLUSION AFFIDAVIT

City of Richmond  
Department of Public Works

BIDDER'S BOND

Bond No. \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS:

That We, \_\_\_\_\_, as Principal, and \_\_\_\_\_, as Surety, are hereby held and firmly bound unto the City of Richmond, in the penal sum of TEN PERCENT (10%) of the total bid submitted by said Principal to the City of Richmond for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT, whereas the Principal has submitted to the City of Richmond a certain bid, attached hereto and hereby made a part hereof, to enter into a contract in writing for the \_\_\_\_\_.

NOW, THEREFORE, if said bid submitted by the Principal be accepted and the contract be awarded to the Principal and the Principal shall, within ten (10) days after having received notice that the contract has been awarded to the Principal, enter into the Contract so awarded, shall furnish the required corporate surety bonds and insurance coverage verification and shall in all other respects perform the agreement created by the acceptance of the bid, then this obligation shall be void, otherwise the same shall remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the City of Richmond may accept such Bid; and said Surety does hereby waive notice of such extension.

As a part of the obligation secured hereby and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees, including reasonable attorney's

fees, incurred by the City of Richmond in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals on this

\_\_\_\_\_ day of \_\_\_\_\_, 202 .

By: \_\_\_\_\_

Title \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Note: This bond must be dated, the surety's signature must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.

END OF BIDDER'S BOND

City of Richmond  
Department of Public Works

PERFORMANCE BOND

Bond No. \_\_\_\_\_

Whereas, The City Council of the City of Richmond, State of California, and \_\_\_\_\_ (hereinafter designated as “principal”) have entered into an agreement whereby principal agrees to install and complete certain designated public improvements, which said agreement, dated \_\_\_\_\_, 202\_, and identified as project \_\_\_\_\_, is hereby referred to and made a part hereof; and

Whereas, Said principal is required under the terms of said agreement to furnish a bond for the faithful performance of said agreement.

Now, therefore, we, the principal and \_\_\_\_\_, as surety, are held and firmly bound unto the City of Richmond (hereinafter called “City”), in the penal sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the above bounded principal, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and provisions in the said agreement and any alteration thereof made as therein provided, on his or their part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless City, its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees, including reasonable attorney’s fees, incurred by City in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the agreement or to the work to be performed thereunder or the specifications accompanying the same shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the agreement or to the work or to the specifications.

In witness whereof, this instrument has been duly executed by the principal and surety above named, on \_\_\_\_\_, 202\_.

By: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

END OF PERFORMANCE BOND

City of Richmond  
Department of Public Works

PAYMENT BOND  
(LABOR AND MATERIALS)

Bond No. \_\_\_\_\_

Whereas, The City Council of the City of Richmond, State of California, and \_\_\_\_\_ (hereinafter designated as “the principal”) have entered into an agreement whereby the principal agrees to install and complete certain designated public improvements, which agreement, dated \_\_\_\_\_, 202\_\_, and identified as project \_\_\_\_\_, is hereby referred to and made a part hereof; and

Whereas, Under the terms of the agreement, the principal is required before entering upon the performance of the work, to file a good and sufficient payment bond with the City of Richmond to secure the claims to which reference is made in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code.

Now, therefore, the principal and \_\_\_\_\_, as corporate surety, are held firmly bound unto the City of Richmond (hereinafter called “City”) and all contractors, subcontractors, laborers, material suppliers, and other persons employed in the performance of the agreement and referred to in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code in the sum of \_\_\_\_\_ dollars (\$ \_\_\_\_\_), for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to this work or labor, that the surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees, including reasonable attorney’s fees, incurred by City in successfully enforcing this obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect.

The surety hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the agreement or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

In witness whereof, this instrument has been duly executed by the principal and surety above named, on \_\_\_\_\_, 202\_\_.

Payment Bond



By: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

END OF PAYMENT BOND

City of Richmond  
Department of Public Works

**WARRANTY BOND**

City of Richmond (“City”) and \_\_\_\_\_ (“Contractor”) have entered into a contract, dated \_\_\_\_\_, 20\_\_ (“Contract”) for work on the Santa Rita Road Stabilization Project (“Project”). The Contract is incorporated by reference into this Warranty Bond (“Bond”).

1. General. Under this Bond, Contractor as principal and \_\_\_\_\_, its surety (“Surety”), are bound to City as obligee in the maximum amount of 15% of the final Contract Price, unless otherwise specified in the Contract Documents.
2. Warranty Period. The Contract requires Contractor to guarantee its work and that of its Subcontractors on the Project, against defects in materials or workmanship which are discovered during the one-year period commencing with City’s acceptance of the Project (“Warranty Period”).
3. Surety’s Obligations. If Contractor faithfully carries out and performs its guarantee under the Contract, and, on due notice from City, repairs and remedies, at its sole expense, any and all defects in materials and workmanship in the Project which are discovered during the Warranty Period, or if Contractor promptly reimburses City for all loss and damage that City sustains because of Contractor’s failure to makes such repairs in accordance with the Contract requirements, then Surety’s obligations under this Bond will be null and void. Otherwise, Surety’s obligations will remain in full force and effect.
4. Waiver. Surety waives the provisions of Civil Code §§ 2819 and 2845.
5. Notice. Any notice to Surety may be given in the manner specified in the Contract and delivered or transmitted to Surety as follows:

Attn: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Email: \_\_\_\_\_

6. Law and Venue. This Bond will be governed by California law, and venue for any dispute pursuant to this Bond will be in the Contra Costa County Superior Court, and no other place. Surety will be responsible for City’s attorneys’ fees and costs in any action to enforce the provisions of this Bond.

7. Effective Date; Execution. This Bond is entered into and is effective on \_\_\_\_\_,  
20\_\_\_\_\_.

*[Signatures are on the following page.]*

SURETY:

\_\_\_\_\_  
Business Name

s/ \_\_\_\_\_

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Title

(Attach Acknowledgment with Notary Seal and Power of Attorney)

CONTRACTOR:

\_\_\_\_\_  
Business Name

s/ \_\_\_\_\_

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Title

APPROVED BY CITY:

s/ \_\_\_\_\_

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Title

END OF WARRANTY BOND

City of Richmond  
Department of Public Works

FIRST SOURCE AGREEMENT

1. GENERAL INFORMATION

A. The City of Richmond First Source Agreement shall be executed between the Prime Contractor and the City of Richmond at a time during the Contract Award as directed by the City of Richmond.

B. A sample copy of this agreement along with any pertinent exhibits is in Appendix A.

END FIRST SOURCE AGREEMENT

FIRST SOURCE AGREEMENT

City of Richmond  
Department of Public Works

CONTRACT  
CONSTRUCTION AGREEMENT

This Construction Agreement (“Agreement”) is made and entered into this \_\_\_\_ day of \_\_\_\_, 201\_, by and between the City of Richmond, a municipal corporation and charter city (“City”) and \_\_\_\_\_ (“Contractor”), with reference to the following facts. The parties may be referred to in this Agreement individually as “Party” and collectively as the “Parties.”

RECITALS

A. On \_\_\_\_\_, the City circulated an Invitation for Bids seeking contractors willing to undertake the construction of \_\_\_\_\_, located at \_\_\_\_\_ (the “Project”).

B. Contractor submitted the lowest responsive bid and has been determined to be responsible.

C. City now desires to contract with Contractor to furnish construction and related services for the Project.

NOW THEREFORE, in consideration of the promises and agreements hereinafter set forth, and intending to be bound hereby, the Parties agree as follows:

ARTICLE I  
CONSTRUCTION OF PROJECT

Section 1.1 Contract Documents.

Project Specifications – including the Notice to Prospective Bidders, Invitation for Bids, Instructions to Bidders, Special Provisions, Description of Work, Construction Details (including all plans and specifications), and Proposal Package, along with any Requests for Information (RFI), responses to RFI, and addenda issued prior to the deadline for submitting bids [THIS LIST MAY BE MODIFIED TO PROVIDE A MORE DETAILED DESCRIPTION OF THE DOCUMENTS FOR YOUR PROJECT – FOR EXAMPLE, YOU MAY SPECIFY THE NUMBER OF RFI/RESPONSES TO RFI THAT RE INCLUDED] – Contractor’s Proposal as attached, and this Agreement, constitute the “Contract Documents.”

Section 1.2 Construction.

Contractor shall furnish all labor, materials, methods, processes, implements, tools and machinery, within the time frames set, and do all the things necessary for the proper completion of the work shown and described in Contract Documents.

Section 1.3 Payments.

Contractor agrees to receive and accept the sums set forth in the Bid Schedule attached as part of the Proposal, as full compensation for furnishing all materials and doing all the work contemplated and required by this Agreement, and for all loss or damage arising out of the nature of the undertaking of the construction of the Project, or from the acts of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the construction of the Project until its completion and acceptance by the City, and for all expenses incurred by or in consequence of the suspension or discontinuance of the construction of the Project, and for well and faithfully performing the construction of the Project and the whole thereof, in the manner and according to the Contract Documents.

Section 1.4 Discovery of Hazardous Waste or Unusual Conditions.

- (a) Promptly and before the following conditions are disturbed, the Contractor shall notify the City in writing of any:
  - (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 by information about the site made available to bidders prior to the deadline for submitting bids.
  - (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 this Agreement.
- (b) The City shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work shall issue a Change Order under the procedures described in this Agreement.
- (c) In the event that a dispute arises between the City and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by this Agreement, but shall proceed with all work to be performed under this Agreement. The Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the Parties.

Section 1.5 Laws and Regulations.

- (a) The Project work shall proceed only after procurement of each permit, license, or other authorization that may be required by any governmental agency having jurisdiction, and Contractor shall be responsible to the City for the procurement and maintenance thereof.

(b) Contractor shall cause all work performed in connection with construction of the Project to be performed in compliance with (i) all applicable laws, ordinances, rules and regulations now in force or that may be enacted hereafter; (ii) all conditions of Project approval and mitigation measures included in any adopted or certified environmental document prepared for the Project; and (iii) all directions, rules and regulations of any fire marshal, health officer, building inspector, or other officer of every governmental agency now having or hereafter acquiring jurisdiction, provided that such direction given during construction does not conflict with conditions of Project approval or mitigation measures.

(c) Contractor shall and shall cause its subcontractors to pay prevailing wages in the construction of the Project as those wages are determined pursuant to Labor Code Sections 1720 et seq., and implementing regulations of the Department of Industrial Relations, and to comply with all other applicable federal, State and local laws, regulations and ordinances pertaining to labor standards insofar as those laws, regulations and ordinances apply to the performance of this Agreement, including any applicable City of Richmond employment requirements, including but not limited to the City's Living Wage Ordinance (Richmond Municipal Code Chapter 2.60), the City's Business Opportunity Ordinance (Richmond Municipal Code Chapter 2.50), and the City's Local Employment Program Ordinance (Richmond Municipal Code Chapter 2.56). During the construction of the Project, Contractor shall post at the construction site the applicable prevailing rates of per diem wages. Contractor shall indemnify, hold harmless and defend, (with counsel reasonably acceptable to the City) the City against any claims for damages, compensation, fines, penalties or other amounts arising out of failure or alleged failure of any person or entity (including Contractor and its subcontractors) to pay prevailing wages in connection with construction of the Project. This Section 1.5(c) shall survive the termination of this Agreement.

(d) Contractor and all subcontractors shall maintain accurate payroll records showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker and others employed on the Project. Each payroll record shall contain or be verified by a written declaration made under penalty of perjury, stating both of the following: (1) the information contained in the payroll record is true and correct, and (2) the employer has complied with the requirements of Labor Code Section 1771 (prevailing wage provisions), Section 1811 (eight-hour day, forty-hour week provisions), and Section 1815 (overtime compensation) for any work performed by his or her employees on the Project. The Contractor shall provide certified payroll records to the City each week, no later than ten (10) days after the end of a weekly pay period. Pay records shall be maintained and made available in accordance with Labor Code Section 1776. In addition, Contractor shall and shall cause its subcontractors promptly to deliver to the City, upon request, documents verifying compliance with the Living Wage Ordinance, which include documents which evidence that each affected employee has been notified regarding the wages required to be paid pursuant to the Living Wage



Ordinance. Such wages shall also be posted at the construction site. This Section 1.5(d) shall survive the termination of this Agreement.

Section 1.6 Inspections.

Contractor shall permit and facilitate, and shall require its subcontractors to permit and facilitate, observation and inspection of the Project by the City and by public authorities at all times for the purposes of determining compliance with this Agreement and permits issued to perform the Project work. In so doing, Contractor shall provide access for testing and inspections. Contractor shall coordinate and schedule all testing and inspections required on the Project with the required advance notice as defined in the Project Specifications.

Section 1.7 Equal Opportunity.

(a) During the construction of the Project there shall be no discrimination on the basis of race, color, creed, religion, age, sex, sexual orientation, marital status, national origin, ancestry, or disability in the hiring, firing, promoting, or demoting of any person engaged in the construction work.

(b) In addition, Contractor agrees to observe the provisions of Section 2.28.030 of the Richmond Municipal Code, obligating Contractor and its subcontractors to refrain from discriminatory employment or subcontracting practices on the basis of race, color, sex, sexual orientation, religion, creed, national origin or ancestry of any employee, any applicant for employment or any potential subcontractor.

Section 1.8 Working Hours.

Eight hours of labor is a legal day's work. Any worker's time of service is restricted to eight hours during any calendar day, and 40 hours during a calendar week, unless overtime compensation is paid at not less than one and one-half times the basic rate of pay. The Contractor shall be assessed a penalty of twenty-five dollars (\$25) for each day a worker is employed in violation of these requirements.

Section 1.9 Insurance and Bond Requirements.

(a) In accordance with California Labor Code Section 3700, Contractor must secure Workers' Compensation coverage for its employees. Prior to performing any work, Contractor must execute a certification in the form set out at California Labor Code Section 1861.

(b) Contractor shall submit to the City evidence of the insurance and payment and performance bond coverage meeting the requirements set forth in the Project Specifications. Proof of insurance and bonding related to the construction of the Project shall be provided to the City not more than (10) days after award of the contract. The City shall review and approve or disapprove of the evidence of insurance within twenty (20) days after submittal of complete information in the form required by the City. If the

City disapproves the evidence of insurance, it shall specify in writing the reasons for such disapproval. Contractor shall resubmit the information required within ten (10) days. The review and submittal periods for resubmittals shall be reduced to a ten (10) day review period for the City and a five (5) day period for resubmittal by Contractor and shall continue to apply until the City approves the evidence of insurance coverage, but in no event shall the submittal and review period continue for more than forty-five (45) days. If, after forty-five (45) days the Contractor has not provided evidence of insurance and bond coverage meeting the requirements of the City, the City shall terminate the contract and may either award the work to the next lowest responsive responsible bidder or issue a new request for bids. (If the City issues a new request for bids, the Contractor shall be disqualified from re-bidding the work because of the failure to provide timely proof of insurance and/or bond coverage.) No work shall be initiated on the Project prior to Contractor's receipt of the City's approval of evidence of insurance coverage related to the construction of the Project.

(c) Contractor shall have furnished the City with evidence of the insurance coverage meeting the insurance requirements set forth in Project Specifications for each subcontractor prior to initiating any work on the Project, including Builder's Risk insurance with appropriate coverage for the cost of construction. The periods for submittal, review and approval shall apply as stated in subparagraph (b) above.

(d) The Parties agree that notwithstanding the time requirements set forth in this subsection for submittal and resubmittal to the City by the Contractor of the evidence of insurance and review and approval of the evidence of insurance by the City, Contractor is responsible for ensuring that the evidence of insurance in approvable form is submitted to the City in a timely manner.

#### Section 1.10 Security In Lieu of Retention.

(a) The City shall retain five percent (5%) of the sum requested in each progress payment unless the Contractor elects to invoke the procedures set forth at California Public Contract Code 22300 to substitute securities to ensure performance under the contract.

1. At the request and the expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the City, or with a state or federally chartered bank in the state as escrow agent, who shall then pay the retained funds to the Contractor. Upon satisfactory completion of the contract, the securities shall be returned to the Contractor.

2. Alternatively, the Contractor may request and the City shall make payment of retentions earned directly to the escrow agent at the expense of the Contractor. At the expense of the Contractor, the Contractor may direct the investment of the payments into securities and the Contractor shall receive the interest earned on the investments upon the same terms provided for in Public Contract Code 22300 for securities deposited by the Contractor. Upon satisfactory completion of this Agreement, the Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from the owner, pursuant to the terms of this section.

(b) If the Contractor chooses to place securities in escrow, the escrow agreement to be used shall be substantially similar to the following form:

#### ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between \_\_\_\_\_ whose address is \_\_\_\_\_ hereinafter called "Owner," \_\_\_\_\_ whose address is \_\_\_\_\_ hereinafter called "Contractor" and \_\_\_\_\_ whose address is \_\_\_\_\_ hereinafter called "Escrow Agent."

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

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

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

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

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

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

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

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

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

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

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

On behalf of Owner:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

On behalf of Escrow Agent:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

On behalf of Contractor:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

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

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

Owner	Contractor
_____	_____
Title	Title
_____	_____
Name	Name
_____	_____
Signature	Signature

Section 1.11 Senate Bill 854 Notice Requirements.

As provided in SB 854: a) no contractor or subcontractor may be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered with the Department of Industrial Relations (DIR) and qualified to perform public work pursuant to Section 1725.5 [Gov't Code Section 1771.1(a)]; b) no contractor or subcontractor may be awarded a public works contract unless registered with the DIR to perform public work pursuant to Section 1725.5 [Gov't Code Section 1771.1(b)]; and c) work performed on the project is subject to compliance monitoring and enforcement by the DIR [Gov't Code Section 1771.4].

Section 1.12 Job Site Notices.

Contractor shall post at the job site notices in compliance with Title I California Code of Regulations Section 16451.

ARTICLE II  
DEFAULT AND REMEDIES

Section 2.1 Events of Default.

In addition the remedies set forth in Section 2.2, below, in the event of default the Department Head reserves the right to stop work immediately if any action or inaction by the Contractor or any subcontractor creates a risk of imminent harm to the public or property.

Each of the following shall constitute a "Default" by Contractor under this Agreement:

- (a) Breach of Covenants. Failure by Contractor or any subcontractor to duly perform, comply with, or observe any of the conditions, terms, or covenants of any of the Contract Documents. The City shall give Contractor written notice of the breach and specify a time in which to cure the breach. If the Contractor cures the breach within the time specified in the notice or, if the breach cannot be cured in the time specified but the Contractor has diligently pursued measures to cure the breach and to keep the City informed of its progress, then the breach shall not constitute a default provided that the

breach is cured within thirty (30) days from the date of the City's last notice and demand to cure.

(b) Disregard of Laws. Disregard of laws, rules, regulations, directions or instructions of City by Contractor or any subcontractor with respect to the performance of work.

(c) Insolvency. A court having jurisdiction shall have made or entered any decree or order (i) adjudging Contractor to be bankrupt or insolvent, (ii) approving as properly filed a petition seeking reorganization of Contractor or seeking any arrangement for Contractor under the bankruptcy law or any other applicable debtor's relief law or statute of the United States or any state or other jurisdiction, (iii) appointing a receiver, trustee, liquidator, or assignee of Contractor in bankruptcy or insolvency or for any of their properties, (iv) directing the winding up or liquidation of Contractor if any such decree or order described in clauses (i) to (iv), inclusive, shall have continued unstayed or undischarged for a period of ninety (90) days; or (v) Contractor shall have admitted in writing its inability to pay its debts as they fall due or shall have voluntarily submitted to or filed a petition seeking any decree or order of the nature described in clauses (i) to (iv), inclusive.

(d) Suspension; Termination. Contractor shall have voluntarily suspended its business, or shall have voluntarily or involuntarily lost or terminated one or more of the licenses required to perform the work.

(e) Liens on Property and the Development. There shall be filed any claim of lien (other than liens approved in writing by the City) against the Project or the construction site or any part thereof, or any interest or right made appurtenant thereto and the continued maintenance of said claim of lien for a period of twenty (20) days without discharge or satisfaction thereof or provision therefore (including, without limitation, the posting of bonds) satisfactory to the City.

## Section 2.2 Remedies.

The occurrence of any Default hereunder following the expiration of all applicable notice and cure periods will, either at the option of the City or automatically where so specified, relieve the City of any obligation to make or continue payments and shall give the City the right to proceed with any and all remedies set forth in the Contract Documents, including but not limited to the following:

(a) Specific Performance. The City shall have the right to mandamus or other suit, action or proceeding at law or in equity to require Contractor to perform its obligations and covenants under this Agreement or to enjoin acts on things which may be unlawful or in violation of the provisions of this Agreement.

(b) Right of Contest. Contractor shall have the right to contest in good faith any claim, demand, levy, or assessment the assertion of which would constitute a Default

hereunder. Any such contest shall be prosecuted diligently and in a manner unprejudicial to the City or the rights of the City hereunder.

(c) Remedies Cumulative. No right, power, or remedy given to the City by the terms of the Contract Documents is intended to be exclusive of any other right, power, or remedy; and each and every such right, power, or remedy shall be cumulative and in addition to every other right, power, or remedy given to the City by the terms of any such instrument, or by any statute or otherwise against Contractor and any other person. Neither the failure nor any delay on the part of the City to exercise any such rights and remedies shall operate as a waiver thereof, nor shall any single or partial exercise by the City of any such right or remedy preclude any other or further exercise of such right or remedy, or any other right or remedy.

Section 2.3 Waiver of Damages.

Contractor, in having tendered the Proposal, shall be deemed to have waived any and all claims for damages because of termination of this Agreement for any reason. Contractor shall not be entitled to any lost profit in the event of termination.

ARTICLE III  
GENERAL PROVISIONS

Section 3.1 Relationship of Parties.

Nothing contained in this Agreement shall be interpreted or understood by any of the Parties, or by any third persons, as creating the relationship of employer and employee, principal and agent, limited or general partnership, or joint venture between the City and Contractor or its agents, employees or subcontractors, and Contractor shall at all times be deemed an independent contractor and shall be wholly responsible for the manner in which it or its agents, or both, perform the services required of it by the terms of this Agreement. Contractor has and retains the right to exercise full control of employment, direction, compensation, and discharge of all persons assisting in the performance of services under the Agreement. In regards to the construction of the Project, Contractor shall be solely responsible for all matters relating to payment of its employees, including compliance with Social Security, withholding, and all other laws and regulations governing such matters, and shall include requirements in each contract that subcontractors shall be solely responsible for similar matters relating to their employees. Contractor shall be solely responsible for its own acts and those of its agents and employees.

Section 3.2 Change Orders.

(a) Changes affecting the time of performance, unit pricing, or total contract price shall be set forth in a written Change Order that shall specify:

1. The work performed in connection with the change to be made;
2. The amount of the adjustment to the Payment Limit, if any, and the basis for compensation for the work ordered; which adjustment may be a negotiated lump sum amount, agreed unit price, or paid under Section 9-1.04 "Force Account" of

the 2010 State of California Department of Transportation Standard Specifications; and

3. The amount of time to be adjusted in the schedule for performance, if any.

(b) A Change Order will become effective when signed by the Department Head, or his or her representative, notwithstanding that Contractor has not signed it. A Change Order will become effective without Contractor's signature, provided the Department Head or his or her representative so indicates by noting thereon "unilateral change order."

(c) All changes in any plans and specification approved by any authority with jurisdiction over the Project may also require addenda or change orders approved by that authority.

(d) Where the City requests, a performance bond rider covering the changed work must be executed and delivered to the City before proceeding with the changed work, or shortly in time thereafter.

(e) The Department Head or his or her representative has the authority to approve Change Orders with a cumulative dollar value of up to ten percent (10%) of the contract price.

#### Section 3.3 Claims By Contractor.

(a) No Third-Party Claims. Nothing contained in this Agreement shall create or justify any claim against the City by any person that Contractor may have employed or with whom Contractor may have contracted relative to the purchase of materials, supplies or equipment, or the furnishing or the performance of any work or services with respect to the construction of the Project, and Contractor shall include similar requirements in any contracts entered into for the construction of the Project.

(b) Obligation to File Claims for Disputed Work. Should it appear to the Contractor that the work to be performed or any of the matters relative to the Contract Documents are not satisfactorily detailed or explained therein, or should any questions arise as to the meaning or intent of the Contract Documents, or should any dispute arise regarding the true value of any work performed, work omitted, extra work that the Contractor may be required to perform, time extensions, payment to the Contractor during performance of the work, construction of the Project, and/or compliance with procedures or standards set forth in the Contract Documents, or should Contractor otherwise seek extra time or compensation FOR ANY REASON WHATSOEVER, then Contractor shall first follow the procedures set forth in this Agreement, including but not limited to Section 3.2, "Change Orders." If a dispute remains, then Contractor shall give written notice to the City that expressly invokes this Section 3.3 and requests a determination of the issue. City shall decide the issue in writing within 15 days; City's decision shall be final and the limitations period for the filing of a claim shall commence upon the City's issuance of its decision. If Contractor disagrees with City's decision, or if Contractor contends that City failed to provide a timely decision, then Contractor's SOLE AND EXCLUSIVE REMEDY is to file a written claim setting forth Contractor's position as required herein.



(c) Form and Contents of Claim. The Claim shall be submitted to the City within thirty (30) days of receiving the City's written decision regarding the dispute, or the date the Contractor contends such decision was due, and in no event later than the date of final payment. Contractor's written claim must identify itself as a "Claim" under this Section 3.3 and must include the following: (1) a narrative of pertinent events; (2) citation to contract provisions; (3) theory of entitlement; (4) complete pricing of all cost impacts; (5) a time impact analysis of all time delays that shows actual time impact on the critical path; (6) documentation supporting items 1 – 5; and (7) verification under penalty of perjury of the claim's accuracy. The Claim shall be priced like a Change Order, and must be updated every thirty (30) days as to cost and entitlement if it remains a continuing Claim. Routine contract materials, for example, correspondence, RFI, Change Order requests, or payment requests shall not constitute a Claim. Contractor shall bear all costs incurred in preparation, submittal, and administration of a Claim.

(d) Administration After Claim Submittal.

1. City may render a final decision based solely on the materials submitted in support of the Claim or may in its sole discretion conduct an administrative hearing on the Claim, in which case Contractor shall appear, participate, answer inquiries, and present any further evidence or analysis requested by City. Should City take no action on the Claim within forty-five (45) days (if the Claim is for less than \$50,000) or within sixty (60) days (if the Claim is for \$50,000 or more) of submittal, it shall be deemed denied.
2. Notwithstanding and pending the resolution of any Claim or dispute, Contractor shall diligently perform the disputed work to final completion in accordance with the City's direction.
3. After their submittal, claims less than \$375,000 shall also be subject to Section 20104 of the Local Agency Public Construction Act.

(e) Compliance

1. The provisions of this Section 3.3 constitute a non-judicial claim settlement procedure that, pursuant to California Government Code Section 930.2, shall constitute a condition precedent to the submittal of a valid claim under the California Government Code. Any Government Code claims alleging disputed work must affirmatively indicate prior compliance with this Section 3.3. In accordance with Richmond Municipal Code Section 1.10.010(b), all Government Code claims must be presented no later than the 100<sup>th</sup> day after the earlier of (i) the date the City actively or passively denied the Claim, or (ii) substantial completion or termination of the contract.
2. Failure to submit and administer Claims as required in Section 3.3 shall waive Contractor's right to compensation for any disputed work not included in a timely Claim. Disputes not raised in a timely protest and timely Claim submitted under this Section 3.3 may not be asserted in any subsequent Government Code claim, administrative hearing, or civil action.
3. City shall not be deemed to waive any provision under this Section 3.3 if, at City's sole discretion, a Claim is administered in a manner not in accord with this Section 3.3. Waivers or modifications of this Section 3.3 may only be made by

signed Change Order approved as to form by legal counsel for both City and Contractor. Oral or implied modifications shall be of no force or effect.

Section 3.4 Indemnification.

(a) To the fullest extent permissible by law, Contractor shall indemnify, defend, and hold harmless, and require its subcontractors to defend, indemnify and hold harmless, the City, its elected and appointed officials, and all of its employees, volunteers and agents (the "Indemnified Parties"), from all liability, penalties, costs, losses, damages, expenses, causes of action, claims or judgments, including attorney's fees and other defense costs (collectively, "Claims"), resulting from injury to or death sustained by any person (including Contractor's or any subcontractors' employees), or damage to property of any kind, or any other injury or damage whatsoever, which Claims arise out of or are in any way connected with the construction of the Project, regardless of Contractor's fault or negligence; provided, however, that Contractor's, and Contractor's subcontractors' indemnity obligations hereunder shall not apply to the extent any Claims are caused by the active negligence or willful act or omission of an Indemnified Party. The indemnification obligations of Contractor and its subcontractors shall extend to Claims asserted after termination of this Agreement for whatever reason.

(b) In Claims against any person or entity indemnified under Section 3.4(a) above by an employee of Contractor or its subcontractors, anyone directly or indirectly employed by any one of them or anyone for whose acts one of them may be liable, the indemnification obligation under Section 3.4(a) above shall not be limited by a limitation on amount or type of damages, compensation of benefits payable under workers' compensation acts, disability benefit acts or other employee benefit acts.

Section 3.5 Non-Liability of City Officials, Employees and Agents.

No member, official, employee or agent of the City shall be personally liable to Contractor in the event of any default or breach by the City or for any amount which may become due to Contractor or its successor or on any obligation under the terms of this Agreement.

Section 3.6 No Third Party Beneficiaries.

There shall be no third party beneficiaries to this Agreement.

Section 3.7 Conflict of Interest.

(a) Except for approved eligible administrative or personnel costs, no person described in Section 3.7(b) below who exercises or has exercised any functions or responsibilities with respect to the activities funded pursuant to this Agreement or who is in a position to participate in a decision-making process or gain inside information with regard to such activities, may obtain a personal or financial interest or benefit from the activity, or have an interest in any contract, subcontract or agreement with respect

thereto, or the proceeds thereunder, either for themselves or those with whom they have family or business ties, during, or at any time after, such person's tenure. Contractor shall exercise due diligence to ensure that the prohibition in this Section 3.7(a) is followed.

(b) The conflict of interest provisions of Section 3.7(a) above apply to any person who is an employee, agent, consultant, officer, or elected or appointed official of the City of Richmond, and any immediate family member or dependent of such person.

Section 3.8 Notices, Demands and Communications.

If at any time after the execution of this Agreement it shall become necessary or convenient for one of the Parties hereto to serve any notice, demand or communication upon the other Party, such notice, demand or communication shall be in writing and shall be served personally or by depositing the same in the registered United States mail, return receipt requested, postage prepaid or delivered by express delivery service, return receipt requested and

(1) if intended for the City shall be addressed to:

City of Richmond  
450 Civic Center Plaza  
Richmond, California 94804  
Attention: XXXX

With copy to:

City of Richmond  
450 Civic Center Plaza  
Richmond, CA 94804  
Attention: City Attorney

(2) if intended for Contractor shall be addressed to:

XXXX  
XXXX  
XXXX  
Attn: XXXX

Any notice, demand or communication shall be deemed given, received, made or communicated on the date personal delivery is affected or, if mailed in the manner herein specified, on the delivery date or date delivery is refused by the addressee, as shown on the return receipt. Any Party may change its address at any time by giving written notice of such change at least ten (10) days prior to the date such change is desired to be effective.

Section 3.9 Applicable Law.

This Agreement shall be governed by California law. This Agreement is made in Contra Costa County, California, and any action relating to this Agreement shall be instituted and prosecuted in the courts of Contra Costa County, California.

Section 3.10 Parties Bound.

Except as otherwise limited herein, the provisions of this Agreement shall be binding upon and inure to the benefit of the Parties and their heirs, executors, administrators, legal representatives, successors, and assigns. Any reference in this Agreement to a specifically named Party shall be deemed to apply to any successor, heir, administrator, executor, successor, or assign of such Party who has acquired an interest in compliance with the terms of this Agreement or under law. This Agreement shall be binding upon and inure to the benefit of the heirs, administrators, executors, successors in interest, and assigns of each of the Parties.

Section 3.11 Severability.

If any term of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions shall continue in full force and effect unless the rights and obligations of the Parties have been materially altered or abridged by such invalidation, voiding or unenforceability.

Section 3.12 Force Majeure.

Performance by either Party shall not be deemed to be in default when delays in performance are due to war, insurrection, strikes, lock-outs, riots, floods, earthquakes, fires, quarantine restrictions, freight embargoes, or court order, or any other similar causes (other than lack of funds of Contractor) beyond the control or without the fault of the Party claiming an extension of time to perform (“Force-Majeure Delays”). In no event shall any extension of any period of time be deemed to have occurred unless the Party claiming the Force-Majeure Delay gives written notice to the other Party within ten (10) days following the commencement of any such delay, setting forth the facts giving rise to the Force-Majeure Delay request, the expected duration of the delay, and the steps the Party intends to take to minimize the Delay. During the Force-Majeure Delay, the Party whose performance is delayed shall keep the other Party reasonably informed of the situation and the steps taken by such Party to continue performance and minimize delay. After the Force-Majeure Delay is over, the Parties shall in good faith jointly prepare an accurate written record of the circumstances giving rise to delay, specifying the commencement date and duration of the Force-Majeure Delay and the cause thereof, which record shall be signed by each Party to confirm agreement with respect to its content. In no event shall the City be required to agree to cumulative Force-Majeure Delays in excess of sixty (60) days unless the City is the cause of such delay. In the event that the parties cannot agree upon a record of the circumstances giving rise to the Force-Majeure Delay, the procedures set forth in Section 3.3 of this Agreement shall apply.

Section 3.13 Waivers.

Any waiver by the City of any obligation or condition in this Agreement must be in writing. No waiver will be implied from any delay or failure by the City to take action on any breach or default of Contractor or to pursue any remedy allowed under this Agreement or applicable law. Any extension of time granted to Contractor to perform any obligation under this Agreement shall not operate as a waiver or release from any of its obligations under this Agreement. Consent by the City to any act or omission by Contractor shall not be construed to be consent to any other or subsequent act or omission or to waive the requirement for the City's written consent to future waivers.

Section 3.14 Title of Parts and Sections.

Any titles of the sections or subsections of this Agreement are inserted for convenience of reference only and shall be disregarded in interpreting any part of the Agreement's provisions.

Section 3.15 Entire Understanding of the Parties.

The Contract Documents – along with any written change orders and dispute determinations that may be issued by the City in the course of performance – shall constitute the entire understanding and agreement of the Parties with respect to construction of the Project. The Contract Documents, written change orders (if any), and dispute determinations (if any) are deemed complementary and should be interpreted together.

Section 3.16 Multiple Originals; Counterpart.

This Agreement may be executed in multiple originals, each of which is deemed to be an original, and may be signed in counterparts. A facsimile or electronic signature to this Agreement shall be as valid as an ink signed original.

WHEREAS, this Agreement has been entered into by the undersigned as of the date first above written.

Reviewed By:

\_\_\_\_\_  
City Attorney

ATTEST:

\_\_\_\_\_  
City Clerk

CITY:

CITY OF RICHMOND, a municipal corporation and charter city

By: \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

CONTRACTOR:

XXXX

By: \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

END OF CONTRACT

City of Richmond  
Department of Public Works

**SPECIAL PROVISIONS**

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**GENERAL PROVISIONS**

The legal relationship and responsibilities of the parties, including but not limited to the obligation to arbitrate claims hereto and the work embraced herein shall be done in accordance with the Standard Specifications and Standard Plans dated 2018 of the California Department of Transportation, and the most recent Standard Plans of the City of Richmond, California, in so far as the same may apply and in accordance with the Project Plans and these Special Provisions.

These Special Provisions are additions, modifications, and/or clarifications to the Standard Specifications of the California Department of Transportation. The numbers in parenthesis shown in the section and subsection headings of these Special Provisions refer to the State Standard Specifications Sections.

Refer to Section SP-1 of these Special Provisions for the order of precedence of the above contract documents in case of any conflict.

## SECTION SP-1 – STANDARD SPECIFICATIONS

References in the Special Provisions to “City Standard Details and Specifications”, Contra Costa County Details, “Caltrans Standard Specifications” or “State Standard Specifications” shall mean the Standard Specifications, dated 2018, of the State of California, Department of Transportation, *including all revisions and amendments*, insofar as the same may apply and in accordance with the following special provisions.

In case of conflict between the State Standard Specifications and these special provisions, the special provisions shall take precedence over and be used in lieu of such conflicting portions.



## SECTION SP-2 – PLANS, SPECIFICATIONS AND CONSTRUCTION SCHEDULE

The Contractor shall maintain a control set of Plans and Specifications on the project site at all times. All final locations determined in the field, and any deviations from the Plans and Specifications, shall legibly be marked to scale in red, both graphically and dimensionally on this control set to show the as-built conditions. Upon completion of all work, the Contractor shall return the control set to the Engineer. Final payment will not be made until this requirement is met.

Adjustments to the layout of this plan may be necessary due to the unknown existing conditions. It is the Contractor's responsibility to retain the design intent. If a layout discrepancy should occur, the Contractor is to contact the Engineer.

The Contractor shall prepare and submit a work plan and progress schedule in accordance with Section 8-1.04 "Progress Schedule" of the Standard Specifications and in a form provided by or acceptable to the Engineer. The above items shall clearly disclose the Contractor's proposed procedures and methods of operation, including identifying any special equipment intended for use on the project. The Contractor shall allow five (5) working days for review and approval of this item by the Engineer. The Progress Schedule will be reviewed weekly for accuracy. Any modifications to the Progress Schedule shall be submitted to the City in writing. Modifications to the Progress Schedule will not constitute approval for a work schedule extension.

The Contractor shall submit a separate weekly schedule, separate from the entire project schedule, which shall clearly show where and at what time the Contractor anticipates working. This separate weekly schedule shall be suitable for publishing in the local paper. A digital version and paper copy of the separate weekly schedule shall be submitted to the Engineer no later than Wednesday preceding the workweek. The City shall have the right to publish part of this schedule on the City's web page or in a local publication.

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

### MEASUREMENT AND PAYMENT

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 therefor.

## SECTION SP-3 - AWARD AND EXECUTION OF CONTRACT

Within ten (10) working days after the date of the Notice to Award, the Contractor shall execute and return the following contract documents to the Agency:

1. Contract Agreement
2. Faithful Performance Bond
3. Payment Bond
4. Public Liability and Property Damage Insurance Certificate
5. Worker's Compensation Insurance Certificate
6. Exhibit "A", Indemnification and Hold Harmless Agreement and Waiver of Subrogation and Contribution

Failure to comply with the above will result in annulment of the award and forfeiture of the Proposal Guarantee. The Contract Agreement shall not be considered binding upon the Agency until executed by the authorized Agency officials. A corporation to which an award is made may be required, before the Contract Agreement is executed the Agency, to furnish evidence of its corporate existence, of its right-to-enter into contracts in the State of California, and that the officers signing the contract and bonds for the corporation have the authority to do so.

### CONTRACT BONDS

Before execution of the Contract, the Bidder shall file surety bonds with the Agency to be approved by the Board in the amounts and for the purposes noted below. Bonds issued by a surety who is listed in the latest version of U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding limitation shown in said circular is sufficient to provide bonds in the amount required by the Contract shall be deemed to be approved unless specifically rejected by the Agency. Bonds from all other sureties shall be accompanied by all of the documents enumerated in Code of Civil Procedure 995-660(a). The Bidder shall pay all bond premiums, costs, and incidentals.

Each bond shall incorporate, by reference, the Contract and be signed by both the Bidder and Surety and the signature of the authorized agent of the Surety shall be notarized. Each bond shall name the City as beneficiary.

The Bidder shall provide two (2) good and sufficient surety bonds. The "Payment Bond" (Material and Labor Bond) shall be for not less than 100 percent of the Contract Price, to satisfy claims of material suppliers and mechanics and laborers employed by it on the Work. The bond shall be maintained by the Contractor in full force and effect until the work is accepted by Agency and until all claims for materials and labor are paid, and shall otherwise comply with the Civil Code.

The "Performance Bond" shall be for 100 percent of the Contract Price to guarantee faithful performance of all work, within the time prescribed, in a manner satisfactory to the Agency, and that all materials and workmanship will be free from original or developed defects.

Should any bond become insufficient, the Contractor shall renew the bond within ten (10) days after receiving notice from the City.

Should any Surety at any time be unsatisfactory to the City, notice will be given the Contractor to that effect. No further payments shall be deemed due or will be made under the Contract until a new Surety shall qualify and be accepted by the City.

Changes in the Work or extensions of time, made pursuant to the Contract, shall in no way release the Contractor or Surety from its obligation. Notice of such changes or extensions shall be waived by the Surety.

Both the Faithful Performance Bond and the Payment Bond shall be for not less than one hundred percent (100%) of the total contract amount for each Bond. Both the Faithful Performance Bond and the Payment Bond shall remain in force until thirty-five (35) days after the date of recordation of the Notice of Completion.

#### MEASUREMENT AND PAYMENT

Full compensation for Bonds shall be considered as included in the price paid for the various bid items and no additional compensation shall be allowed therefor.

## SECTION SP-4 - BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES

Attention is directed to the provisions in Sections 8-1.05, "Time," 8-1.10, "Liquidated Damages," and 20-4, "Plant Establishment Work," of the State Standard Specifications and these special provisions.

### CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK

The Contractor shall prosecute the work in the most efficient manner to minimize inconvenience to the public and complete the work within the Contract time limit. Prior to issuing the notice to proceed, the Contractor shall:

1. Provide the Engineer the name and local 24-hour telephone contact number of the Contractor's Superintendent.
2. Provide the Notice to Residents.
3. Provide a Materials List.
4. Prepare a storm water pollution and prevention plan (SWPPP)
5. Prepare a Vehicular and Pedestrian traffic control plan.
6. Prepare a truck route plan.
7. Provide for photo and video documentation of the existing conditions.

The Contractor shall complete the work in accordance with the following:

1. Procure all materials and equipment needed for construction
2. Establish traffic control system
3. Install water pollution prevention devices
4. Pothole to locate all existing utilities in areas of work

The Contractor's proposed Construction Schedule shall be submitted in a format as detailed in Section 8-1.02 "Schedule" of the State Standard Specifications to the Engineer within ten (10) working days after the date of the Notice of Award of Contract and shall reflect all major and controlling items of work and conform to all contract requirements, including the order of work mentioned above. The schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged and setting forth the dates that each item will be delivered.

Prior to issuing the Notice to Proceed, the Engineer will schedule a preconstruction meeting with the Contractor to review the proposed Construction Schedule and delivery dates, arrange the utility coordination, discuss construction methods, and clarify inspection procedures.

The Contractor shall submit to the Engineer by the fifth (5th) day of each month, or upon request, Progress Reports and an updated complete project schedule. Any deviations from the original schedule shall be explained in writing and submitted with the Progress Reports or updated complete project schedule. Failure to submit Progress Reports, updated complete project schedules or explanations for deviations on the fifth (5th) day of the month or within 2 working

days from the Engineer's request may result in suspension of any or all portions of work or rejection of any or all portions of work until such Progress Reports or complete project schedules are delivered to the Engineer and the Engineer allowed a reasonable amount of time to review them. Working days will continue to be accessed during this suspension. Progress payments will be withheld pending receipt of any outstanding reports, updated schedules or explanations for deviations.

In the event of a deviation from the most current order of work, progress report or complete progress schedule (whether authorized, planned, unplanned or emergency deviation) if additional or unplanned inspection fees are incurred by the City as a result as determined by the Engineer, then an inspection service fees will be charged against the Contractor. The service fees will include all costs to the City associated with the deviation, including consultant fees, testing fees, employee regular and overtime rates, benefits, overhead and travel time. The service fees will be deducted from any amounts due the Contractor.

#### LIQUIDATED DAMAGES

For each consecutive calendar day in excess of the time specified, as adjusted in accordance with Section 8-1.07 of the State Standard Specifications, for completion of the work, the Contractor shall pay to the Agency, or have withheld from monies due it, the sum as set forth in the contract agreement, liquidated damages.

The Contractor shall pay to the City of Richmond the sum of \$500 per calendar day for each and every calendar day delay in finishing the work in excess of the number of working days prescribed above, except as extended by contract change order.

#### HOURS OF WORK

Hours of work in general shall be between 8:00 A.M. and 5:00 P.M., Monday – Friday

All references herein to timeframes that are specified in days shall mean calendar days, unless specifically stated otherwise.

The temporary full closure of streets is not permitted without the advance approval of the Engineer.

When lane closures are made for daily work periods, at the end of each work period, all components of the traffic control systems shall be removed from the traveled way and shoulder.

The Contractor shall schedule and sequence his/her operations within the specified hours for lane closures such that lanes closed for the street work shall remain closed until applied pavement materials (asphalt concrete, pavement delineation, etc.) have sufficiently cured to accommodate traffic. All lanes shall be reopened to public traffic no later than the end of the allowed lane closure hours.

#### SUBMITTALS

The Contractor shall provide submittals in an electronic format to the Engineer for review and approval. The Contractor shall not proceed with procuring materials or commencing work until

the submittal receives a favorable review by the Engineer. Prior to the Pre-Construction, the Contractor shall furnish the following:

1. Designation of Project Superintendent.
2. 24-hour contact information.
3. Advance notifications (door knockers)
4. Construction schedule
5. Vehicular and Pedestrian Traffic Control Plan
6. Truck Route Plan
7. Storm Drain Pipes
8. Soldier Pile
9. Wood Lagging
10. Beam Coating Material
11. Concrete Mix Design
12. Washed Class II Permeable Angular Rock Crushed Stone
13. Class II Aggregate Base
14. Metal Fence
15. Guardrail
16. Dewatering Plan
17. Storm Water Pollution Prevention Plan (SWPPP)
18. Controlled Low-Strength Material (CLSM)
19. Rock Rip Rap

The City reserves the right to require additional submittals from the Contractor that are not specifically identified above. See the Special Provisions for additional submittals required.

#### MEASUREMENT AND PAYMENT

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 therefor.

SECTION SP-5 - PUBLIC NOTICES

The Contractor shall assign a Project Superintendent who has the complete authority to make decisions on behalf of the Contractor. The Project Superintendent shall be on the job at all times during the construction and shall be available and on call 24 hours a day for the duration of the project. The Contractor shall provide the Engineer and to the Richmond Police Department a 24-hour contact number for the Project Superintendent. This number shall not direct calls to a recorder or other message taking service.

Ten (10) calendar days prior to beginning any work, the Contractor shall furnish and hand deliver written notice to all adjoining residents, businesses, and tenants. The notice shall be in a form approved in advance by the Engineer. A sample of the notice will be provided to the Contractor at the Pre-construction Conference. The notice shall alert the resident of the scope of the work that will take place in two days along their frontage and potential impacts to ingress and egress of their driveways, as well as parking restrictions. The notice shall also contain contact information for individuals associated with this project (such as the Resident Engineer and Contractor Superintendent), as well as overall program contact information.

The Contractor shall also contact and coordinate the work with the agencies and companies listed below with the aim of minimizing inconvenience or disruption of service to Richmond residents. The Contractor shall make every effort to accommodate the service to the community provided by those agencies and companies listed below. Additionally, the Contractor shall give the agencies and companies listed below written notification of the project fourteen days prior to beginning any work.

Richmond Police Department	(510) 233-1214
Richmond Fire Department	(510) 307-8031
U.S Post Office	(800) 275-8777
Contra Costa Transportation Authority	(925) 407-0121
West Contra Costa Unified School District	(510) 231-1100
West Contra Costa Integrated Waste Management Authority	(510) 215-3125
Richmond Public Works (Street Sweeping)	(510) 231-3011
Richmond Sanitary Company (Garbage Collection)	(510) 262-1600
Stege Sanitary District (Sewer Services)	(510) 524-4668
West County Wastewater District (Sewer Services)	(510) 222-6700

MEASUREMENT AND PAYMENT

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 and no separate payment will be made therefore.

## SECTION SP-6 – WATERING

Watering shall conform to Section 10-4 “Water Usage”, Section 10-5 “Dust Control”, Section 10-6 “Watering” Section 13, “Water Pollution Control,” Section 19 “Dust Palliatives” of the State Standard Specifications and these Special Provisions.

The Contractor shall supply the necessary labor, material, and equipment for construction water needs throughout the contract period. Construction water includes, but is not limited to, watering for dust control, and pipe testing. The Contractor shall contact East Bay Municipal Utility District (EBMUD) for a temporary water meter to supply the project. The contractor will be responsible for any fees, or deposits associated with obtaining construction water. This section applies during working and non-working periods, including weekends.

No separate payment will be made for the purpose of controlling dust caused by Contractor and public traffic.

### MEASUREMENT AND PAYMENT

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 therefor.



SECTION SP-7 – GENERAL

DEFINITIONS

- Agency/City - City of Richmond
- Board - City Council
- Caltrans - California Department of Transportation
- City - City of Richmond
- Country - County of Contra Costa
- Director - The Director of Public Works / City Engineer, City of Richmond, acting either directly or through his properly authorized agents, each agent action only within the scope of authority designated to him.
- Engineer - The Director of Public Works / City Engineer, City of Richmond, acting either directly or through his properly authorized agents, each agent action only within the scope of authority designated to him.
- Federal - United States of America
- Final Acceptance - Final Acceptance is defined as that stage of construction which allows the City to accept the project as completed (no punch list items remaining unresolved).  
  
When the Contractor believes that the project is ready for final acceptance, he shall call for a final acceptance inspection. The Director will inspect the project to verify its completion. Should there be elements that are not completed, the Director will record same (final acceptance punch list) and bring them to the attention of the Contractor. All punch list items must be resolved prior to final acceptance.  
  
When, in the Director’s judgment, the work has been completed in accordance with the plans and specifications and is ready for final acceptance, he will so certify to the Board, which may accept the completed work. Upon acceptance of the work by the Board, the City Clerk will file the Notice of Completion with the County Recorder.
- State Standard Specifications - Standard Specifications, State of California, Department of Transportation, dated 2018 (or current version), including all revisions and amendments.
- City Standard - City of Richmond Department of Public Works Standard Details

## Details

- Contra Costa County Standard Details - Contra Costa County Public Works Department – Standard Details Dated March 2014
- Substantial Completion - Substantial Completion is defined as that stage of construction, which allows the Director to occupy or use the project for its intended purpose. When a project includes a plant establishment period, the date of the start of the plant establishment period may, at the discretion of the Director, be used as the basis for determining the substantial completion date, provided that all elements of the project, other than the landscape, are substantially completed as defined above. The substantial completion date will be determined by the Director in cooperation with the Contractor and establish the termination of the time period for construction, and this date is used as a basis for determining whether liquidated damages are assessable. In no case shall the plant establishment period end prior to the final acceptance of the project.
- When the Contractor believes that construction of the project is substantially complete, he shall call for an inspection. The Director will inspect the total project to verify its completion by the Contractor. Should there be elements of the project that are not yet completed, the Director will record same (substantial completion punch list) and bring them to the attention of the Contractor. All such items must be completed prior to acceptance of the project substantially complete.
- In the event re-inspection of any project element results in additional cost to the City for consultant or staff time, the Director retains the right to withhold sufficient funds from payments due the Contractor to cover the cost to the City of such re-inspection.
- Traveled Way - That portion of the roadway reserved for the movement of vehicles for the general public, exclusive of shoulders and auxiliary lanes. When traffic has been diverted or restricted to certain lanes, with the approval of the Traffic Engineer, these diversions or restricted lanes become the traveled way.

## PROJECT DESCRIPTION

The goal of this project is to protect Santa Rita Road and access to the adjacent neighborhood from slope instability failure located at 2929 Salvino Court, adjacent to Santa Rita Road. The road is threatened by a landslide failure that has occurred on the adjacent private property. A soldier pile retaining wall will be constructed along the road right-of-way to protect the road from failure. The

Contractor shall take all reasonable precautions to restrict his operations to the least area of work possible and shall not disturb property beyond the areas of work. The Contractor shall make every effort to minimize his work area and keep the construction area clean and free of all excess debris, pollutants, and dust at all times.

The Contractor shall be cognizant that the project involves work on City of Richmond property and within City easements with public access. The project also includes work within private property (2929 Salvino Court) with owner permission.

The Contractor shall provide equipment staging space at their own expense beyond the areas specifically provided by the project plans and specifications. Staging on Santa Rita Road is allowed only in the area delineated by lane control stakes along the south bound parking lane. Heavy equipment shall not be stored or parked adjacent to or within 25 feet of the existing landslide scarp.

Any damage or use of private property, non-city maintained road, or facility is the responsibility of the Contractor. The Contractor shall be responsible for any damage to existing utilities, adjacent roads or property caused by his activities and shall also use suitable sized equipment to prevent such damage.

Debris, soil, silt, bark, rubbish, treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project-related activities, shall be prevented from contaminating the soil and/or entering the waters of the State. Any of these materials, placed within or where they may enter a stream or lake, by the applicant or any party working under contract, or with permission of the applicant, shall be removed immediately.

The Contractor shall be responsible for Site Protection and Maintenance during completion of the project until fully accepted as completed by the City and Engineer.

#### CITY NOTES

1. All material and workmanship shall fully conform with the Specifications, standards, and ordinances of the City of Richmond. Standard specifications and details are available in the office of the City Engineer.
2. The office of public works inspection shall be notified at least 24 hours in advance of any work.
3. It shall be the contractor's responsibility to determine the existence and location of all utilities. The underground contractor shall notify utility companies at least 48 hours in advance of construction to field locate utilities. Contact underground service alert at 800-227-2600.
5. The contractor shall be held responsible for any field changes made without written authorization from the City Engineer.

5. Contractor shall provide adequate traffic controls & shall submit a traffic control plan

6. All existing utilities and private improvements that become damaged during construction shall be completely restored to the satisfaction of the City Engineer, at contractor's sole expense.

7. The contractor agrees that, in accordance with generally accepted construction practices, the contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property and that this requirement shall be made to apply continuously and not just during normal working hours.

8. Excavations shall be adequately shored, braced and sheeted so that the earth will not slide or settle and so that all existing improvements of any kind will be fully protected from damage. Any damage resulting from a lack of adequate shoring, bracing or sheeting, shall be the responsibility of the contractor and shall make necessary repairs or reconstruction at contractor own expense. Where the excavation for a conduit trench, and/or structure is five feet or more in depth, the contractor shall provide adequate sheeting, shoring and bracing or equivalent method, for the protection of life, or limb, which shall conform to the applicable construction safety orders of the division of industrial safety of the state of California. The contractor shall always comply with OSHA requirements.

9. Should it appear that the work to be done, or any matter relative thereto, is not sufficiently detailed or explained on these plans, the contractor shall contact the Engineer for such further explanations as may be necessary. Existing utilities shall be maintained in service and in place by the contractor during construction unless otherwise shown. References to the state standard specifications and standard Plans refer to 2018 edition.

10. All USA marking to be removed at end of construction.

11. Contractor shall comply with all regulatory agency permit requirements. The qualified biologist, biological surveys, and related reports will be provided by the city.

#### LABOR NONDISCRIMINATION

Attention is directed to the following Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

#### NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM (GOV. CODE, SECTION 12990)

Your attention is called to the “Nondiscrimination Clause”, set forth in Section 7-1.02I(2), “Nondiscrimination,” of the State Standard Specifications, which is applicable to all nonexempt

state contracts and subcontracts, and to the “Standard California Nondiscrimination Construction Contract Specifications” set forth herein. The State Standard Specifications are applicable to all nonexempt state construction contracts and subcontracts of \$5,000 or more.

The Contractor shall ensure unlimited access to the job site for all equal employment opportunity compliance officers.

#### ARBITRATION

The last paragraph in Section 9-1.22, “Arbitration,” of the State Standard Specifications is amended to read:

Arbitration shall be initiated by a Complaint in Arbitration made in compliance with the requirements of said regulations. A Complaint in Arbitration by the Contractor shall be made not later than 180 days after the date of service in person or by mail on the Contractor of the final written decision by the Department on the claim.

#### POTENTIAL CLAIMS AND DISPUTE RESOLUTION

Section 5-1.43, “Potential Claims and Dispute Resolution,” of the State Standard Specifications is amended to read:

Section 5-1.43, “Potential Claims and Dispute Resolution,” -- The Contractor shall not be entitled to the payment of any additional compensation for any act, or failure to act, by the Engineer, including failure or refusal to issue a change order, or for the happening of any event, thing, occurrence, or other cause, unless he shall have given the Engineer due written notice of potential claim as hereinafter specified. Compliance with this Section 9-1.04 shall not be a prerequisite as to matters within the scope of the protest provisions in Section 4-1.05, “Changes and Extra Work,” or Section 8-1.05, “Time,” or the notice provisions in Section 4-1.06, “Differing Site Conditions,” or Section 8-1.10, “Liquidated Damages,” or Section 5-1.36C, “Non-Highway Facilities,” nor to any claim which is based on differences in measurements or errors of computation as to contract quantities.

The written notice of potential claim shall be submitted to the Engineer prior to the time that the Contractor performs the work giving rise to the potential claim for additional compensation, if based on an act or failure to act by the Engineer, or in all other cases within 15 days after the happening of the event, thing, occurrence, or other cause, giving rise to the potential claim.

The written notice of potential claim shall be submitted on Form CEM-6201 furnished by the Department and shall be certified with reference to the California False Claims Act, Government Code Sections 12650 - 12655. The notice shall set forth the reasons for which the Contractor believes additional compensation will or may be due and the nature of the costs involved. Unless the amount of potential claim has been stated in the written notice, the Contractor shall, within 15 days of submitting said notice, furnish an estimate of the cost of the affected work and impacts, if any, on project completion. Said estimate of costs may be changed or updated by the Contractor when conditions have changed. When the affected work is completed, the Contractor shall submit substantiation of his actual costs. Failure to do so shall be sufficient cause for denial of any claim subsequently filed on the basis of said notice of potential claim.

It is the intention of this Section 5-1.43 that differences between the parties arising under and by virtue of the contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that he shall have no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was filed.

Should the Contractor, in connection with or subsequent to the assertion of a potential claim, request inspection and copying of documents or records in the possession of the Department that pertain to the potential claim, Contractor shall make its record of the project, as deemed by the Department to be pertinent to the potential claim, available to the Department for inspection and copying.

#### FINAL PAYMENT AND CLAIMS

CONTRACTOR'S AFFIDAVIT AND FINAL RELEASE. After completion of all contract work and prior to requesting release of any moneys held in retention or final payment by the CITY, the CONTRACTOR shall fully execute and deliver to the CITY the document entitled "Affidavit and Final Release," included in the contract (page C-15).

Section 9-1.17D, "Final Payment and Claims," of the State Standard Specifications is amended to read:

9-1.17D Final Payment and Claims -- After acceptance by the Director, the Engineer will make a proposed final estimate in writing of the total amount payable to the Contractor, including therein an itemization of said amount, segregated as to contract item quantities, extra work and any other basis for payment, and shall also show therein all deductions made or to be made for prior payments and amounts to be kept or retained under the provisions of the contract. All prior estimates and payments shall be subject to correction in the proposed final estimate. The Contractor shall submit written approval of the proposed final estimate or a written statement of all claims arising under or by virtue of the contract so that the Engineer receives such written approval or statement of claims no later than close of business on the thirtieth day after receiving the proposed final estimate. If the thirtieth day falls on a Saturday, Sunday or legal holiday, then receipt of such written approval or statement of claims by the Engineer shall not be later than close of business of the next business day. No claim will be considered that was not included in the written statement of claims, nor will any claim be allowed as to which a notice or protest is required under the provisions in Sections 4-1.05, "Changes and Extra Work," 8-1.05, "Time," 8-1.10, "Liquidated Damages," 4-1.06, "Differing Site Conditions," 5-1.36C, "Non-Highway Facilities," and Section 5-1.43, "Potential Claims and Dispute Resolution," unless the Contractor has complied with the notice or protest requirements in said sections.

On the Contractor's approval, or if he files no claim within said period of 30 days, the Engineer will issue a final estimate in writing in accordance with the proposed final estimate submitted to the Contractor and within 30 days thereafter the City will pay the entire sum so found to be due. Such final estimate and payment thereon shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the compensation payable

therefor, except as otherwise provided in Sections 5-1.27, "Records," and 9-1.21, "Clerical Errors."

If the Contractor within said period of 30 days files claims, the Engineer will issue a semifinal estimate in accordance with the proposed final estimate submitted to the Contractor and within 30 days thereafter the City will pay the sum so found to be due. Such semifinal estimate and payment thereon shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the compensation payable therefor, except insofar as affected by the claims filed within the time and in the manner required hereunder and except as otherwise provided in Sections 5-1.27, "Records," and 9-1.21 "Clerical Errors."

Claims filed by the Contractor shall be in sufficient detail to enable the Engineer to ascertain the basis and amount of said claims. If additional information or details are required by the Engineer to determine the basis and amount of said claims, the Contractor shall furnish such further information or details are received by the Engineer no later than the fifteenth day after receipt of the written request from the Engineer. If the fifteenth day falls upon a Saturday, Sunday or legal holiday, then receipt of such information or details by the Engineer shall not be later than close of business of the next business day. Failure to submit such information and details to the Engineer within the time specified will be sufficient cause for denying the claim.

The Contractor shall keep full and complete records of the costs and additional time incurred for any work for which a claim for additional compensation is made. The Engineer or any designated claim investigator or auditor shall have access to those records and any other records as may be required by the Engineer to determine the facts or contentions involved in the claims. Failure to permit access to such records shall be sufficient cause for denying the claims.

Claims submitted by the Contractor shall be accompanied by a notarized certificate containing the following language:

Under the penalty of law for perjury or falsification and with specific reference to the California False Claims Act, Government Code Section 12650 et. seq., the undersigned,

\_\_\_\_\_,  
(Name) \_\_\_\_\_ Of  
(Title) \_\_\_\_\_  
(Company) \_\_\_\_\_

Hereby certifies that the claim for the additional compensation and time, if any, made herein for the work on this contract is a true statement of the actual costs incurred and time sought, and is fully documented and supported under the contract between parties.

Dated \_\_\_\_\_

/s/ \_\_\_\_\_

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_

\_\_\_\_\_  
Notary Public

My Commission Expires \_\_\_\_\_

Failure to submit the notarized certificate will be sufficient cause for denying the claim.

Any claim for overhead type expenses or costs, in addition to being certified as stated above, shall be supported by an audit report of an independent Certified Public Accountant. Any such overhead claim shall also be subject to audit by the City at its discretion.

Any costs or expenses incurred by the City in reviewing or auditing any claims that are not supported by the Contractor's cost accounting or other records shall be deemed to be damages incurred by the City within the meaning of the California False Claims Act.

The Engineer will make the final determination of any claims which remain in dispute after completion of claim review by the Engineer. A board or person designated by said Engineer. The Contractor may meet with the review board or person to make a presentation in support of such claims.

Upon final determination of the claims, the Engineer will then make and issue his final estimate in writing and within 30 days thereafter the City will pay the entire sum, if any, found due thereon. Such final estimate shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the compensation payable therefor, except as otherwise provided in Sections 5-1.27, "Records," and 9-1.21, "Clerical Errors"

Claims within the meaning of this section shall refer to all types of claims in whatever manner made by the Contractor, whether written or verbal, whether formal or informal, including requests for extra compensation through Daily Extra Work Reports.

#### REMOVAL OF ASBESTOS, LEAD PAINT AND HAZARDOUS SUBSTANCES

When the presence of asbestos, lead paint or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, all such removal of asbestos or hazardous substances including any exploratory work to identify and determine the extent of such substances will be included in the lump sum price for this contract. If delay of work in the area delays the current controlling operation, it will be considered Extra Work as detailed in the Section 4-1.05 "Changes and Extra Work," of the State Standard Specifications.

#### LUMP SUM

All labor, materials and incidentals shall be provided for the lump sum prices specified in the Bid Schedule.

#### SUBCONTRACTING



All subcontractors, suppliers and vendors shall comply with applicable Agency, City and Federal orders regarding affirmative action to ensure equal employment opportunities and fair employment practices. Fail to file any report due under said orders will result in suspension of periodic progress payments.

#### PAYMENTS

Attention is directed to Section 9-1.16, "Progress Payments," and 9-1.17, "Payment After Contract Acceptance," of the State Standard Specifications and these special provisions. In these sections revise "The Department" to "The City of Richmond."

For the purpose of making partial payments pursuant to Section 9-1.16, "Progress Payments," of the State Standard Specifications, the amount set forth for the contract items of work hereinafter listed shall be deemed to be the maximum value of said contract item of work which will be recognized for progress payment purposes.

After acceptance of the contract pursuant to Section 3, "Contract Award and Execution," of the State Standard Specifications, the amount, if any, payable for a contract item of work in excess of the maximum value for progress payment purposes herein above listed for said item, will be included for payment in the first estimate made after acceptance of the contract.

#### SOUND CONTROL REQUIREMENTS

The noise level from the Contractor's operations, between the hours of 8:00 a.m. and 5:00 p.m., shall not exceed 86 dbA at a distance of 50 feet. This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise level.

Said 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.

#### MEASUREMENT AND PAYMENT

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 therefor.

#### CONTRACTOR'S LIABILITY

The City of Richmond, the City Council, the Engineer or their agents and consultants shall not be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof; or for any of the materials or other things used or employed in performing the work; or for injury to any person or persons, either workmen or the public; or for damage to any person or persons, either workmen or the public; or for damage to adjoining property from any cause which might have been prevented by the Contractor, or his workmen, or any one employed by him; against all of which injuries or damages to persons and property the Contractor, having control over such work, must properly guard. The Contractor shall be responsible for any damage to any person or property resulting from defects or obstructions or any time before its completion and final acceptance. So much of the money due the Contractor under and by virtue of the

Contract as shall be considered necessary by the City may be retained by the City until disposition has been made of any suits or claims for damages aforesaid.

If, in the opinion of the Engineer, the precautions taken by the Contractor are not safe or adequate at any time during the life of the Contract, the Engineer may order the Contractor to take further precautions, and if the Contractor shall fail to do so, the Engineer may order the work done by others and charge the Contractor for the cost thereof, such cost to be deducted from any monies due or becoming due the Contractor. Failure of the Engineer to order such additional precautions, however, shall not relieve the Contractor from his full responsibility for public safety.

#### SPECIAL PAYMENT PROVISIONS

The contract is further subject to the following provisions of California Government Code Section 20104.50:

- A) For purposed of this article:
  - 1) It is the intent of the Legislature in enacting this section to require all local governments to pay their contractors on time so that these contractors can meet their own obligations. In requiring prompt payment by all local governments, the Legislature hereby finds and declares that the prompt payment of outstanding receipts is not merely a municipal affair, but is, instead, a matter of statewide concern.
  - 2) It is the intent of the Legislature in enacting this article to fully occupy the field of public policy relating to the prompt payment of local governments' outstanding receipts. The Legislature finds and declares that all government officials, including those in local government, must set a standard of prompt payment that any business in the private sector which may contract for services should look towards for guidance.
- B) Any local agency which fails to make any progress payment within 30 days after receipt of an undisputed and properly submitted payment request from a contractor on a construction contract shall pay interest to the contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.
- C) Upon receipt of a payment request, each local agency shall act in accordance with both of the following:
  - 1) Each payment request shall be reviewed by the local agency as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request.
  - 2) Any payment request determined not to be a proper payment request suitable for payment shall be returned to the contractor as soon as practicable, but not later than seven days, after receipt. A request returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the payment request is not proper.

- D) The number of days available to a local agency to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which a local agency exceeds the seven-day return requirement set forth in paragraph (2) of subdivision (c).
- E) For purposes of this article:
- 1) A “local agency” includes, but is not limited to, a city, including a charter city, a county, and a city and county, and is any public entity subject to this part.
  - 2) A “progress payment” includes all payments due contractors, except that portion of the final payment designated by the contract as retention earnings.
  - 3) A payment request shall be considered properly executed if funds are available for payment of the payment request, and payment is not delayed due to an audit inquiry by the financial officer of the local agency.
- F) Each local agency shall require that this article, or a summary thereof, be set forth in the terms of any contract subject to this article.

#### BUY AMERICA REQUIREMENTS

Attention is directed to the “Buy America” requirement of the Surface Transportation Assistance Act of 1982 (Section 165) and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) Sections 1041(a) and 1048 (a), and the regulations adopted pursuant thereto. In accordance with said law and regulations, all manufacturing processes for steel and iron materials furnished for incorporation into the work on this project shall occur in the United States; with the exception that pig iron and processed, pelletized and reduced iron ore manufactured outside of the United States may be used in the domestic galvanizing, painting, and any other coating that protects or enhances the value of such steel or iron materials shall be considered a manufacturing process subject to the “Buy America” requirements.

A Certificate of Compliance, conforming to the provisions in Section 6-3.05E, “Certificates of Compliance,” of the Standard Specifications, shall be furnished for steel and iron materials. The certificates, in addition to certifying that the materials occurred in the United States, except for the exceptions allowed herein.

The requirements imposed by said law and regulations do not prevent a minimal use of foreign steel and iron materials if the total combined cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract cost or \$2,500, whichever is greater. The Contractor shall furnish the Engineer acceptable documentation of the quantity and value of any foreign steel and iron prior to incorporating such materials into the work.

#### MEASUREMENT AND PAYMENT

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 therefor.

## SECTION SP-8 – TRENCH AND EXCAVATION SAFETY

The Contractor shall obtain a permit from the Division of Industrial Safety for the construction of trenches or excavations which are five feet or deeper and into which a person is required to descend.

Prior to initiation of any work or operation under a permit issued by the Division of Industrial Safety, a safety conference shall be conducted by the Contractor. Such safety conference shall include the Engineer and the Contractor's employees who will be working in or near the trench. The safety conference shall include a discussion of the hazards working near excavations and specific protocols to be implemented.

Prior to the excavation of any trench or trenches five feet or more in depth, the Contractor shall submit to the Engineer 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 excavation of such trench or trenches. The plan is to be submitted to the Engineer a minimum of two weeks prior to the proposed commencement of trenching operations, and is to be approved by the Engineer prior to commencement of trenching operations. If such plan varies from the shoring system standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer in the State of California.

Nothing in this requirement shall allow the use of shoring, sloping or protective system less effective than that required by the Construction Safety Orders.

### MEASUREMENT AND PAYMENT

Full compensation for conforming to Trench Safety shall be considered as included in the prices paid for the various items of work and no additional compensation will be allowed therefor.

## SECTION SP-9 – PUBLIC UTILITY COORDINATION

Attention is directed to Section 8-1.10 "Utility and Non-Highway Facilities" of the Standard Specifications and these Special Provisions.

It is not the intent of the plans to show the exact location of existing utilities, and the Engineer assumes no responsibility therefore. Whenever any such utilities are indicated thereon, the Contractor shall be responsible for verifying their actual location and depth in the field. Where excavation is contemplated to be deeper than eight inches, the Contractor shall notify Underground Service Alert at (800) 642-2444 prior to excavation.

Where excavations are performed in the vicinity of underground utility mains and/or services the Contractor shall, as necessary, perform initial exploratory excavations (i.e., potholing) to determine their exact depth and location. Payment for exploratory excavation shall be included in the various items of work needed to complete the excavation work. Extreme care shall be exercised to avoid damage, and it will be the Contractor's responsibility to have repairs made to existing facilities at his/her expense in the event of damage. Where existing utilities require temporary or permanent relocation to accommodate proposed work the Contractor will work with the utilities to provide a minimum of interruption to local service.

In order to avoid conflicts, construction work for the site shall be coordinated with any work by utility entities performing utility relocations. Upon completion of the installation and backfill of the soldier pile retaining wall, the contractor shall coordinate with the utilities, such that the utilities may have sufficient time to install their facilities, if any, in the roadway prior to final paving. Reimbursement for right-of-way delays regarding work by utility entities shall not be allowed, and Section 8-1.10 of the Standard Specifications shall not apply to utilities identified on the plans or stated herein.

### MEASUREMENT AND PAYMENT

Full compensation for conforming to Public Utility Coordination shall be considered as included in the prices paid for the various items of work and no additional compensation will be allowed therefor.

## SECTION SP-10 – CONTROL OF MATERIALS

### Certificates of Compliance

Where specifically required by the Standard Specifications or by these Special Provisions the Contractor shall furnish certificates of compliance. The Contractor shall provide one set of delivery tags at the end of each day to the inspector for all materials incorporated into the work.

### Compaction Testing

The City or its designated representative may conduct compaction tests to determine compliance with the provisions of these specifications. Compaction tests will be performed at intervals and at depths necessary for determining compliance with the compaction requirements of the Special Provisions and as shown on the plans. If the material as placed does not meet the compaction requirements, the Contractor shall re-compact the material or remove, replace and re-compact. New compaction tests will be taken on the re-compacted material until compaction requirements are met. All such repeated compaction tests will be performed at the cost of the Contractor.

### Shop Drawings and Submittals

Submittals shall be made in advance of the planned incorporation of the materials into the work. The Contractor shall submit shop drawings and submittals, subject to the approval of the City or its appointed representative, in accordance with the requirements of the Special Provisions.

The Contractor shall submit sufficient information, specifications, and product data including special provision section, the vendor's name, the manufacturer's name if different from the vendor's, trade name, and model number or code for each product to demonstrate compliance with the project requirements. The Contractor shall resubmit additional or revised information as may be required by the City or its appointed representative in a like manner. No material shall be used in the work until written acceptance of the submittal has been made by the city or its appointed representative.

The Contractor shall submit digital files (PDF format) for all shop drawings, and other submittals, except that at least two samples shall be submitted where samples are required per these Special Provisions. Submittals shall bear a stamp or specific written statement that the Contractor has satisfied its responsibilities under the Contract Documents with respect to the review of the submittal. All submittals shall be identified clearly as to materials, supplier, pertinent data such as catalog numbers and the use for which intended, as the City may require. The data shown on the shop drawings, samples, or other submittals shall be complete with respect to quantities, dimensions, specified performance, design criteria, materials and similar data to enable review of the information by the City.

The Contractor shall submit all shop drawings, samples and other submittals required by the Contract Documents to the City with such promptness as to cause no delay in the work.

Before submission of each shop drawing, sample or other submittal, the Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed and coordinated each shop drawing sample or other submittal with each other and with the requirements of the Contract Documents and the work.

At the time of each submission, the Contractor shall give the City **SPECIFIC WRITTEN NOTICE OF EACH VARIATION** that the shop drawings, samples or other submittals may have from the

requirements of the Contract Documents and, in addition, shall cause a specific notation of each such variation to be made for each shop drawing, sample and other submittal.

Review of shop drawings, samples or other submittals by the City or any party acting on the City's behalf shall not relieve the Contractor from responsibility for any variation from the requirements of the Contract Documents unless the Contractor has in writing called the Engineer's attention that the variation at the time of submission as required and the Contractor has received written acknowledgement of each such variation incorporated into or accompanying the approval of each shop drawing, sample or other submittal. No review by the City or parties acting on behalf of the City shall relieve the Contractor from responsibility for errors or omissions in the shop drawing, sample or other submittal.

The City or its appointed representative will endeavor to have the shop drawings, samples or other submittals reviewed and returned to the Contractor, with a written indication of approval or the reason for rejection, not later than 10 working days after the date of submission to the City.

The Contractor shall make at its own expense any corrections to the shop drawings, samples or other submittals that are required by the City and the Contractor shall resubmit the required number of corrected copies. The Contractor shall indicate in writing on each resubmittal any revisions other than or in addition to the corrections required in the previous submittals.

Where a shop drawing, sample or other submittal is required by the Contract Documents, any related work performed prior to the review, approval, and return to the Contractor of the pertinent submittal shall be at the sole risk, expense and responsibility of the Contractor.

Shop drawings, samples and other submittals, in any part, in any form or in any stage of review or approval shall not constitute Contract Documents or parts thereof.

The Contractor shall submit the following submittals to the City or its appointed representative at the preconstruction conference:

- Detailed project schedule in critical path format for the entire project
- Emergency contact names and phone numbers.
- Construction site Best Management Practices (BMP's) for preparation of the Water Pollution Control Program (WPCP)
- Location of proposed staging/storage areas
- Sources of materials and locations at which the materials will be available for inspection
- Traffic control plans, including traffic control supervisor proof of certification (separate submittals for sewer and pavement work)
- Sheeting and Shoring Plan
- All Submittals related to excavation
- OSHA and other necessary Safety permits
- A complete list of required submittals for City review, including specification section references and anticipated submittal dates. Items shall be arranged in order with the Special Provisions.

Please note that only submittals required at or prior to the preconstruction meeting are listed above. No attempt has been made to summarize a list of all required Submittals for this project. The Contractor shall review the Plans and Specifications carefully and submit shop drawings and submittals as required.

After the Contract's list of required submittals is favorably reviewed and returned to the City or its appointed representative, it shall become the basis for future submittal the submissions. An incomplete submittal list shall not be the basis for avoiding a submittal required by the Contract Documents. No work shall proceed on any item until it has been submitted and favorably reviewed. An incomplete submittal list is not a basis for avoiding a submittal required by the Specifications.

#### Request for Substitution of Materials

Pursuant to California Public Contract Code Section 3400, the City shall not limit the bidding, directly or indirectly, to any one specific concern. Whenever any particular material (for the purpose of this section, the term "material" includes any product, thing, equipment, or service) is indicated in the Contract Documents by patent, proprietary or brand name, or by name of manufacturer, such wording is used for the purpose of facilitating its description and shall be deemed to be followed by the words "or equal." A listing of materials is not intended to be comprehensive, or in order of preference.

Unless Contractor submits a request for substitution of "equal" materials in accordance with the requirements of the Contract Documents, and unless the City approves the substitution, the Contractor shall furnish and install the specified materials for the Contract Amount. Contractor shall, at its expense, furnish data, which substantiates that the requested substitute material is "equal" to the materials identified in the Contract Documents. The Contractor shall, at its expense, have the material tested as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the requested substitute material will fulfill its intended function, and will sufficiently match other materials in use by the City on public improvements either completed or in the course of completion.

Test methods shall be subject to the approval of the Engineer. Test results shall be reported promptly to the Engineer, who will evaluate the results and determine if the requested substitute material is equal.

All data and test results submitted by Contractor in substantiation of the requested substitute material shall be submitted to the Engineer no later than fifteen calendar days prior to the earlier of: (a) the date on which Contractor is required to order the material in accordance with the Project Schedule; or (b) the date on which Contractor is required to submit shop drawings or submittals regarding the material to the City, in accordance with the Project Schedule.

Within fifteen calendar days after the Contractor submits all substantiation of the offer, the Engineer shall either: (a) issue a written determination to the Contractor, as to whether or not the requested substitute material may be used in the performance of the Contract Documents; or (b) if the Engineer fails to issue a written determination within fifteen calendar, the requested substitute material shall be deemed rejected. If the Engineer determines that the substitute material may be used, he will issue a Change Order to the Contractor for such use on the project. The Engineer's determination shall be final. The Contractor shall not order, install or use the substitute material unless and until approved by Change Order.

If a requested substitute material is not found to be equal to the material specified in the Contract Documents, Contractor shall furnish and install the specified material at the Contract Amount.



Contractor shall not be entitled to an extension of Contract Time resulting from a request for a substitution of materials.

#### Lines and Grades

The Contractor will furnish his own layout and control lines necessary for the construction of the improvements covered by this contract and as shown on the plans. The Contractor shall be responsible for all layout and control costs.

The Contractor shall provide all necessary surveys, field staking, and positioning for the construction of all components at the proper alignment, elevations, grades, and positions, as indicated on the Drawings and as required for the proper operation and function.

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 and no additional compensation will be allowed therefor.

## SECTION SP-11 – MOBLIZATION

Mobilization shall conform to the provisions of Section 9-1.16D, “Mobilization” of the State Standard Specifications and these Special Provisions. The total cost for mobilization should not exceed 5% of the total bid price. Any amount bid on the bid schedule in excess of 5% shall be withheld from payment until the completion of the project, to be paid as part of the final payment.

Mobilization shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies incidental 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 for project costs incurred prior to beginning work on the various Contract items.

Sanitary restroom facilities shall be provided and maintained, by the Contractor, on the project site. The Contractor proposed locations for restroom facilities shall be reviewed with the Engineer prior to delivery and placement of the restroom facility.

The Contractor shall develop a temporary construction staging area for the storage and operation of construction equipment and supplies. The staging area shall be located on a portion of paved public roadway adjacent to the project site. No staging of equipment or material will be permitted on any unpaved area or private property.

The Contractor shall submit a plan describing the construction staging area to the Engineer for approval. The Contractor shall not permit any waste or damage to be done to the staging area and shall maintain the area in good condition, free of litter and debris. Upon completion of the work, the area shall be restored to its pre-construction or better condition, including the repair of any damaged pavement, curbs, markings, or other public infrastructure components.

Where shown on the bid schedule, the total cost for mobilization for that bid schedule shall not exceed 5% of the total bid price less the cost for mobilization.

### NOTIFICATIONS

Public notification shall consist of a procedure of written one-week notices (handouts and/or mailings), and door-to-door notifications 24 hours prior to starting work for every phase of construction (traffic control, excavation, piling, wood lagging, etc.) as described below. A copy of all written notices shall be submitted to the Engineer for approval at least one week prior to handout and/or mailing.

The Contractor shall provide a written advanced notice to all residents residing on the project streets and including side/cross streets adjacent, and all emergency, public transportation, and garbage/recycle collection services by letter of the pending work, at least five (5) working days, but not more than seven (7) working days, prior to start of construction on each project street. Work shall be scheduled to avoid interruption of garbage/recycling collection services. Contact Richmond Sanitary Services at (510) 262-7100, 3260 Blume Drive, Richmond for service schedules. Notifications shall include the following information:

- Identification of Contractor(s) including emergency contact name(s) and phone number(s),
- Description of work,
- Dates and times of construction, and

- Information regarding street closures and/or detouring.

On the day before work on a specific project street is to begin, the Contractor shall securely attach a door hanger with notice. This door-to-door notification shall provide the same information as the one-week notice. Each notice remaining on the door on the evening of construction completion shall be picked up and disposed of by the Contractor.

#### MEASUREMENT AND PAYMENT

The contract lump sum price paid for “**Mobilization [Bid Item #1]**” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in mobilization, complete in place, including but not limited to preparing and distributing notifications, General Provisions, plans, specifications, construction schedule, bonds, preparation and submittal of all project records and documents; obtaining all required permits, licenses, and paying all applicable fees, developing and submitting construction schedules and updates, delivery of all materials and equipment to the site required for operation, all preparatory work, public utility coordination, coordination and cooperation required, attending project meetings, developing construction water supply, providing and removing on-site sanitary facilities, developing a temporary construction staging area, insurance and bonds; demobilization and all other mobilization work as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

## SECTION SP-12 – EROSION CONTROL PLANS AND SWPPP

This work shall be done in accordance with Section 21, "Erosion Control" of the State Standard Specifications and these special provisions, and as directed by the Engineer.

Dust control shall conform to the provisions of Section 18, "Dust Palliatives" of the Standard Specifications.

The Contractor shall comply with local ordinances regulating noise levels.

This work under this section shall include but not limited to erosion control, silt fence installation, erosion control blanket installation and any other form of erosion control methods and as specified herein.

Prior to the commencement of work, the contractor shall provide Storm Water Pollution Prevention Plan and erosion control plan that designates the measures to control or prevent pollution of surface water runoff from excavation, material stockpiles and on-site vehicle/equipment storage and maintenance. The plan shall include measures to prevent any contaminated water, such as concrete laden effluent, from entering any storm drain system or water channel.

The Contractor shall make provisions for maintenance and repair of control measures, personnel training, waste disposal and, if necessary, on-site sanitary facilities.

Upon learning of approaching inclement weather, the contractor shall initiate the appropriate pollution prevention measures pursuant to the SWPPP and during the course of such inclement weather, shall assign personnel to regularly visit, inspect, and as necessary, maintain, the pollution control measures.

Construction vehicles and equipment entering existing paved areas shall be free of mud, silt and other debris during all phases of work. No mud, silt and other debris shall be tracked on paved surfaces. If such materials are tracked on the streets or other paved areas both public and private, the Contractor shall immediately remove these materials prior to these materials entering into the storm drain system.

Stockpiling of materials on the street will not be allowed unless otherwise approved by the Engineer. The Contractor shall cover with plastic any construction or excavated materials which may possibly erode and enter the storm drain system of paved streets or other paved areas both public and private. Stockpiling of dirt on paved areas will not be allowed.

The Contractor shall sweep the work area and clean up the work site daily before leaving the site.

The Contractor shall be responsible throughout the duration of the project for installing, constructing, inspecting and maintaining the control measures included in the Erosion Control Plans and SWPPP and any amendments thereto and for removing and disposing of temporary control measures.

To ensure the proper implementation and functioning of temporary erosion control measures, the Contractor shall regularly inspect and maintain the construction site for the control measures identified in the Erosion Control Plans and SWPPP. The Contractor shall identify corrective actions and time frames to address any damaged measures or reinstate any measures that have been discontinued

During the length of the project, inspections of the construction site shall be conducted by the Contractor to identify deficient measures. The inspections shall be, but not limited to as follows:

1. Prior to a predicted storm;
2. After all precipitation which causes runoff capable of carrying sediment from the construction site;
3. At 24 hours intervals during extended precipitation events; and
4. Routinely, on a minimum weekly basis.
5. If the Contractor identifies a deficiency in the deployment or functioning of an identified control measure, the deficiency shall be corrected in a timely manner.
6. If the Engineer identifies a deficiency in the deployment or functioning of an identified control measure, the Contractor will be notified and the deficiencies shall be corrected by the Contractor in a timely manner.
7. Failure to make the necessary repairs or other necessary maintenance when directed by the Engineer shall result in the necessary repair work being done by City forces the Contractor will be billed at double the rate of all City expenses.

#### Measurement and Payment

Payment for the “**Erosion Control Plan and SWPPP [Bid Item #3]**” shall be on a lump sum basis. The contract lump sum price paid for the Dust Control, Water Pollution Control, Watering, Erosion Control Plan and SWPPP shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in the Erosion Control Plan and SWPPP as specified herein.

## SECTION SP-13 – TEMPORARY TRAFFIC CONTROL

Maintaining safe and efficient traffic flow through the work zone is a high priority for the City. For the purpose of this section, traffic relates to cars, trucks, buses, pedestrians, and bicycles. The traffic control described in this section shall be coordinated with other City projects. The Contractor's shall conform to Sections 7-1.03 "Public Convenience," 7-1.04 "Public Safety" and Section 12 "Temporary Traffic Control" of the State Standard Specifications, insofar as they may apply, and these Specifications.

Traffic Control shall comply with the following:

1. No work that interferes with public traffic shall begin before 9:00 a.m. or after 4:00 p.m. from Monday through Friday. Lane closure hours are limited to between 9 a.m. and 4 p.m.
2. No work is allowed on Saturday, Sunday or Holidays.
3. During lane closure operations, a minimum of one flagman controlled and unobstructed paved traffic lane, not less than 11 feet wide, shall be open for use by public traffic.
4. The Contractor shall provide flagman and other personnel to control traffic at all times.
5. The Contractor shall prepare a detailed traffic control plan for the Engineer's advance approval; no work involving traffic control may occur until the Engineer approves the Plan.
6. All signs and other warning devices (including construction and advance warning signs placed beyond the limits of work) shall be provided and maintained by the Contractor at his or her expense, and shall remain his or her property after the completion of the contract.
7. The Contractor shall provide all flaggers at his or her expense.
8. The Contractor shall provide and maintain all necessary signs to inform the public of the work.

### TRAFFIC CONTROL PLAN SUBMITTAL

The Contractor shall submit a "Traffic Control Plan" in conformance with Standard Plan, "Traffic Control System For Lane Closure on Multilane Conventional Highway", showing the proposed exact location of signs, cone taper limits, and flashing arrow sign for review and acceptance by the Engineer. Lanes shall not be closed until the traffic control plan has been reviewed and accepted by the Engineer. Plan shall also be in compliance with the latest CA MUTCD.

Contractor shall submit a "Pedestrian Traffic Control Plan" showing pedestrian detours or diversions that complies with the latest CA MUTCD including but not limited to Chapter 6D, Chapter 6F. Section 6F.74, Chapter 6G. Section 6G.05, and Chapter 6H, Typical Application 28 and Caltrans Pedestrian Facilities Handbook downloadable from [http://www.dot.ca.gov/hq/construc/safety/Temporary\\_Pedestrian\\_Facilities\\_Handbook.pdf](http://www.dot.ca.gov/hq/construc/safety/Temporary_Pedestrian_Facilities_Handbook.pdf).

All traffic control plans shall be prepared by a registered civil or traffic engineer, and shall provide sufficient information and details to show typical lane closures, channelizing, proposed detours, locations and usage of flagmen, typical construction zone signing, provisions for pedestrians, etc. The traffic control plan shall show in detail the proposed staging and sequencing of the work together with the proposed traffic control system for each work task. The proposed

traffic control system shall, in all respects, satisfy the requirements of these Special Provisions. The Engineer will review the proposed traffic control plan and return it to the Contractor for any necessary revisions or corrections. The Contractor shall revise and resubmit the plan to the Engineer, and this process shall be repeated, until the proposed traffic control plan is accepted by the Engineer. The Contractor will not be permitted to perform any lane closures or implement any part of the traffic control plan until it has been accepted by the Engineer.

All weather and accessible access for pedestrians shall be provided at all times in and through the construction area. When a sidewalk, driveway or curb ramp is removed, the area shall be fenced and signage provided to direct pedestrians to an alternate ADA compliant route. Pedestrians shall be routed to temporary crossing points which shall be submitted to the Engineer for review and approval.

In locations where the sidewalk, driveway or curb ramp are removed, at the end of the work day the Contractor shall provide a temporary ADA compliant sidewalk, driveway or curb ramp fabricated from an accessible surface, including wood, asphalt or metal. A temporary access plan shall be submitted to the Engineer for review and approval 10 days prior to removal of the sidewalk, driveway or curb ramp.

No demolition work shall begin without the Engineer's approval of the plans.

#### CONSTRUCTION AREA SIGNS

Once construction starts, the Contractor shall furnish and install construction area signs to inform motorists, pedestrians, and bicyclists of work in the streets and sidewalks. These signs may include, but are not limited to, "Road Construction Ahead", "Detour Ahead", and "Road Closed". Construction area signs shall be furnished, installed, maintained, and removed when no longer required in accordance with the provisions in Section 12, "Temporary Traffic Control" of the State Standard Specifications and these Specifications. Construction area signs shall be metal, with reflective coating, black on orange, and securely mounted. Signs shall be kept clean and in good repair. The Contractor's traffic control plan shall show the location of the signs.

The Contractor shall be responsible for providing, placing, and installing all construction area signs. The signs shall not be installed on trees, utility poles, private property, traffic signals, or any other appurtenance, unless approved by the Engineer.

#### NO PARKING SIGNS

The Contractor's traffic control plans shall show the locations where on street parking is to be temporarily removed. If approved by the Engineer, the Contractor shall post "NO PARKING" signs along the street to be closed not less than 72 hours in advance of the time he or she wishes to commence operations. The time and date must be written on each sign that is posted. Signs must be posted no more than 50 feet apart along the area to be cleared of vehicles. Signs shall be removed upon completion of the work in any given area or when there will be a delay between types of work (underground, concrete, pavement rehabilitation, etc.).

The Contractor shall notify the Engineer after posting said "NO PARKING" signs 72 hours before the prohibition is to become effective.

#### TRAFFIC CONTROL SYSTEM

The Contractor shall implement the traffic control system as approved by the Engineer. If warranted by field conditions, the Contractor shall adjust the system as directed by the Engineer. The Contractor shall provide and implement all traffic handling devices and equipment as described in Sections 12-3 "Temporary Traffic Control Devices" and 12-4 "Maintaining Traffic" of the State Standard Specifications.

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, the Contractor shall immediately repair the component to its original condition or replace the component, and shall restore the component to its original location.

At the end of each workday, the Contractor shall open all streets for access and remove traffic control devices except for those providing advanced warning near work zones. Traffic control devices shall not be stored within public streets.

The Contractor shall allow traffic flow in two directions at all times providing two travel lanes of at least 11 feet each. When this is not possible, the Contractor shall provide flaggers to control traffic. The cost for flaggers is the Contractor's responsibility.

All excavations shall be backfilled or covered with steel trench plates suitable for traffic loading, at the end of each day's work. Trench plates shall be securely anchored in place and have temporary asphalt ramps all around. No open excavation of any depth will be permitted to remain overnight.

The Contractor shall provide access to all driveways within the work zone at all times.

#### TEMPORARY PEDESTRIAN ACCESS

All weather and accessible access for pedestrians shall be provided at all times in and through the construction area. When a sidewalk is removed, the area should be fenced and signage provided to direct pedestrians to an alternate route. Pedestrians shall be routed to temporary crossing points as approved by the Engineer. However, the route shall not exceed one block.

At the end of each work day, the Contractor shall make provisions to allow safe access to pedestrians through the work zone.

In locations where the sidewalk is removed and entrances to private property are obstructed, the Contractor shall provide a temporary sidewalk fabricated from wood or asphalt. The temporary sidewalk shall comply with the Americans with Disabilities Act. A temporary access plan shall be submitted to the Engineer for review and approval 10 days prior to removal of the sidewalk.

The Contractor shall provide an alternate circulation path shall be provided whenever the existing



pedestrian access route in the public right-of-way is blocked by construction, alteration, maintenance, or other temporary conditions.

Where possible, the alternate circulation path shall parallel the disrupted pedestrian access route, on the same side of the street. The path shall minimize the length of detour and shall be approved by the Engineer before implementation. The alternate circulation path shall be all weather and compliant with the Americans with Disabilities Act. Where the alternate circulation path is adjacent to potentially hazardous conditions, the path shall be protected with barricades.

#### TEMPORARY PAVEMENT DELINEATION

When the Contractor removes striping or markings, he or she shall immediately place temporary delineation prior to opening the traveled way to public traffic.

Surfaces on which temporary pavement delineation is to be applied shall be cleaned of all dirt and loose material and shall be dry when the pavement delineation is applied. The Contractor shall perform all work necessary to establish satisfactory alignment for temporary pavement delineation. Temporary pavement delineation that is damaged from any cause during the progress of the work shall be immediately repaired or replaced by the Contractor at their expense.

The Contractor shall not use paint on pavement that is to remain in place. In this case, the Contractor shall use Temporary Traffic Stripe and Pavement Marking Tape. Tape shall be applied to a clean dry surface and rolled slowly with a rubber tired vehicle or roller to ensure complete contact with the pavement surface in accordance with the manufacturer's recommendations. Tape shall not be applied over existing stripes or markings. Completed stripes shall be straight on tangent alignments and shall be on a true arc on curved alignments.

Temporary pavement markers may be used to simulate the striping shown on the approved traffic control plans. The use of temporary pavement markers shall conform to the typical details for pavement markers and traffic lines shown in the State Standard Plans and as determined by the Engineer.

When no longer required for the direction of public traffic, as determined by the Engineer, the temporary traffic stripe and pavement marking tape and temporary pavement markers, applied to existing pavement, the top layer of new pavements or any other paved surface where the previously placed pavement delineation conflicts with the new traffic pattern, shall be removed and disposed of in accordance with the provisions of these Specifications, and all lines and marks used to establish the alignment for the temporary traffic stripes, pavement markings and temporary pavement markers shall be removed from the pavement.

#### TEMPORARY VEHICLE ACCESS

The Contractor shall provide a stable base for vehicles to travel over at the end of the workday. This can include a class II aggregate base or cement treated base compacted adequately to support vehicle traffic without yielding. The Contractor shall apply water to control dust. The Contractor shall leave this temporary condition for the shortest period as necessary to complete the work; it shall be no more than 7 working days.

## TEMPORARY PAVING

To accommodate the stage construction, the Contractor may need to install temporary asphalt paving to provide a uniform path of travel. The Contractor shall place hot mix asphalt pavement in accordance with the Section 39 “Asphalt Concrete” of the State Standard Specification as necessary to provide two lanes of travel in each direction, turn lanes, access through intersections, and accommodate any vertical transitions. In locations shown in the Plans, the Contractor shall additionally provide, place, and compact class II aggregate base to facilitate the installation of the temporary asphalt paving. When a vertical difference in excess of 1.0 inch (i.e. between new pavement and old pavement) exists either parallel or perpendicular to the vehicle’s path of travel, the Contractor shall place hot mix asphalt pavement allowing for a smooth transition to the satisfaction of the Engineer. The Contractor shall be responsible for maintaining the asphalt pavement for the duration of the project. The Contractor shall grind, remove, and dispose of the asphalt as necessary to accommodate the staging.

## MEASUREMENT AND PAYMENT

The contract lump sum price for “**Temporary Traffic Control [Bid Item #2]**” includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in the traffic control, including preparation of traffic control plans, providing signs and flaggers, implementing the traffic control system, placing temporary delineation, installation of temporary paving, and removal of temporary paving, as shown on the Plans, as specified in the State Standard Specifications and these Special Provision Specifications, and as directed by the Engineer.

## SECTION SP-14 – CLEARING AND GRUBBING

Clearing and Grubbing shall conform to the provisions in Section 15, "Existing Facilities" and Section 17-2, "Clearing and Grubbing," of the State Standard Specifications and these Special Provision Specifications.

Clearing and grubbing, especially with concern for existing native vegetation, shall be limited to the maximum extent practicable to those areas actually affected by the planned construction, and for access as necessary.

Clearing and grubbing shall also include temporary removal and replacement of black plastic tarping, ropes and sandbags as required to perform the project work. The tarping shall be replaced on the site following retaining wall installation to protect side slopes and bottom of the slide area not included in the retaining wall installation area.

Clearing and grubbing shall include, but not be limited to the following:

- Pruning of branches and vines in the vicinity of the erosion protection work and retaining wall as shown on the drawings.
- Removal of trees that are in conflict with the design as marked by the Engineer in the field. Existing trees throughout the project shall be protected from equipment. The Contractor shall protect the tree root systems for trees in the proximity of construction, and make every effort to modify his operation to not jeopardize the health of the tree.
- Removal of stump.
- Removal of soil from the retaining wall area.
- Removal of all other items conflicting with the work as shown on the plans as necessary to accommodate construction operations, or as directed by the Engineer.

Items that are designated to be salvaged shall be transported by the Contractor to the City's facility located in Richmond as directed by the Engineer.

### STORAGE OF MATERIALS

Construction materials (e.g., gravel, aggregate, heavy equipment) or project debris and waste material should not be placed adjacent to or against the trunks of trees. Disposing or depositing of oil, gasoline, chemicals or other harmful materials within the drip line or in drainage channels and swales is prohibited.

### PRODUCTS

Submit suppliers product data for the following products:

**CHAIN LINK FENCE:** Size and dimensions of chain link fence and concrete foundation shall be furnished and constructed as shown on the plans.

**GUARDRAILS:** Size and dimensions of fence post and concrete foundation shall be furnished and constructed as shown on the plans.

#### MEASUREMENT AND PAYMENT

Full compensation for doing all the work involved in tree protection, tree removal, and stump grinding contained in this section shall be considered as included in the prices paid for the various items of work and no additional compensation will be allowed therefor.

The contract price paid per square foot for “**Clearing and Grubbing [Bid Item #4]**” include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all work involved but not limited to earthwork, removal and disposal of brush, trees, debris, topsoil, rubble, organic material, trash, removal & replacement of tarp and other debris as well complete and in place, all as indicated on the plans, specified in the Standard Specifications, these special provisions, and as directed by the Engineer, and no additional compensation will be allowed.

## SECTION SP-15 - DISPOSAL OF MATERIALS

The City has not made arrangements for disposal of material, which may include but is not limited to soil, concrete, asphalt, pipe, rock, and vegetation. The Contractor shall dispose of all excess and unsuitable material in a legal manner.

The City has not completed testing of soil within the project limits. The Contractor is responsible for disposing of all excess soil in a legal manner at a facility with all-weather access. The Contractor should assume all soil must be disposed in a Class II landfill. The Contractor shall be responsible for testing soil as required by the disposal site.

The Contractor shall dispose of material such as asphalt, concrete, organic, and wood in a recycling facility.

The Contractor shall be responsible for disposing asphalt containing reinforcing fabric. All other materials shall be disposed in a legal facility.

### MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials, equipment, and incidentals for doing all the work involved in Disposal of Materials shall be considered as included in the prices paid for the various items of work unless otherwise defined in these Specifications and no additional compensation will be allowed therefor.

## SECTION SP-16 - EXISTING UTILITIES

Attention is directed to Sections 8-1.10, "Utility and Non-Highway Facilities", and Section 15, "Existing Facilities", of the State Standard Specifications. The scope of work of this section includes, but is not limited to, the following: removal of existing highway facilities, adjusting existing survey monuments, water valves, manholes and interconnect and monitoring well covers to grade, and protecting existing highway facilities.

The Contractor shall verify all horizontal and vertical locations of existing utilities and other obstructions prior to construction activities by potholing. If the Contractor identifies conflicts, he or she shall notify the Engineer immediately.

The Contractor shall call U.S.A. 800-227-2600 to mark the locations of all underground utilities at least forty-eight (48) hours before the intended start of excavation.

At the completion of work, the Contractor shall remove all U.S.A. painted markings by water blasting or other non-destructive method, approved by the Engineer. Sandblasting or grinding to remove markings will not be allowed.

Payment for removing U.S.A. painted markings shall be considered as included in the cost of the various items of work shown on the Bid Form Proposal and no additional compensation will be allowed therefore.

Any damage to storm drain facilities or sewer facilities due to the Contractor's operations shall be repaired or replaced by the Contractor to the satisfaction of the Engineer at the Contractor's expense. Any damage to gas, electric, water, telephone, or other utilities shall be repaired by the utility company at the Contractor's expense.

The Contractor shall be responsible for coordinating with all utilities for the repair, adjustment or relocation of utility facilities.

The Contractor shall coordinate the work and cooperate with the utility companies during construction.

### DELAYS

The Contractor shall receive no additional compensation for delays or inconvenience caused by utility relocations and / or adjustments. The delay caused by these relocations and/or adjustments shall not count towards the Contractors' "working days".

### SURVEY MONUMENTS

Existing survey monuments shall be preserved, referenced or replaced pursuant to the requirements of State of California Streets and Highways Code Sections 732.5, 1492.5 and 1810.5 and Business and Professions Code Section 8771 and the following:

1. The Contractor shall not disturb permanent survey monuments or bench marks without consent of the Engineer. The Contractor shall bear the expense of replacing any monument

or bench mark that may be disturbed without permission. Replacement shall be done only with the direction of, and in the presence of, the Engineer.

2. Should the Contractor, during the course of construction, encounter a survey monument or bench mark not shown on the plans for the work, he/she shall promptly notify the Engineer, in writing, so that the monument or bench mark may be properly referenced, preserved and/or restored.

#### MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials, equipment, and incidentals for doing all the work involved in the work contained in this section shall be considered as included in the prices paid for the various items of work and no additional compensation will be allowed therefor.

## SECTION SP-17 – PRESERVATION OF PROPERTY

The Contractor's attention is directed to Section 5-1.36 "Property and Facility Preservation" of the State Standard Specifications. Building, fences, signs, walls, headers, curbs, gutters, sidewalks, driveways, curb ramps, pavements, hardscape, irrigation systems, drains, utilities, and any other features which are not designated to be removed shall be protected in place. Any damage to these facilities shall be repaired by the Contractor entirely at his or her expense as directed by the Engineer.

Existing trees, shrubs, and other plants, that are not to be removed and are injured or damaged by reason of the Contractor's operations, shall be replaced by the Contractor at his/ her cost. The minimum size of tree replacement shall be 24-inch box and the minimum size of shrub replacement shall be 15 gallons. Replacement ground cover plants shall be from flats and shall be planted 12 inches on center. The replacement specimen must be of the same species. All damaged vegetation is to be disposed of in a legal manner as required by these Specifications.

Underground irrigation systems, outside of the public right-of-way, which are damaged or removed during construction, shall be restored within 48 hours of the first destruction or removal in order to be functional. The Contractor shall be responsible for all damage to existing vegetation to remain due to lack of irrigation from broken irrigation lines. The landscaping and any other facilities shall be replaced in kind or as approved by the Engineer.

It shall be the contractor's responsibility to ascertain the location of all utilities, including drains, manholes and monuments. The Contractor shall preserve all existing benchmarks, survey control points, reference points, and other permanent points within the project limits. Any of the aforementioned controls that are damaged will be replaced by the Contractor's licensed Land Surveyor at no cost to the City.

Additionally, the Contractor shall institute measure to preserve and protect buildings, fences, signs, hardscape, and underground utilities located adjacent to the work area. All damaged items shall be replaced in kind or as approved by the Engineer.

### REPLACEMENT OF DAMAGED SURFACES

All asphalt concrete, concrete curbs, gutters, driveways, sidewalks, curb ramps or other surfaced areas which are broken or damaged shall be reconstructed by and at the expense of the Contractor, of the same kind of material and of the same dimensions as the original work or as directed by the Engineer, with the minimum requirement that concrete as specified herein shall be used. Repairs shall be made by removing and replacing the entire portion between joints or scores and not by refinishing the damaged part.

### APPEARANCE OF WORK

All work shall match the appearance of existing improvements to the satisfaction of the Engineer.

### UTILITIES

The Contractor shall telephone Underground Service Alert (USA) at (800) 227-2600 or 811 a minimum of two working days prior to start of work so that underground facilities can be approximately located and marked on the surface by the various utilities.



The Contractor shall, prior to start of construction, excavate and pothole and determine the exact locations, both horizontally and vertically, of all utilities within the roadway in the Project area. Any utilities that are in conflict with the proposed work shall be relocated by the respective utility companies. If any utilities are in conflict with the proposed work, the Contractor shall notify the Engineer in writing of the location and elevation of the utility line that is in conflict. The Contractor shall coordinate all work with the utility companies under the direction of the Engineer.

The Contractor will be allowed additional working days equal to the number of working days that the relocation of utilities delays his work. No compensation will be allowed for idle time of equipment during the utility relocation.

#### MATERIALS

Materials and quality of work shall conform to those specified by the City Standards, the State Standard Plans and Specifications, and these Specifications.

#### RESTORATION DUE TO CONTRACTOR'S MEANS AND METHODS

The contract documents show the least impact to existing facilities for installation of pipeline work and related appurtenances. As required by the shoring, dewatering, and/or pipe installation method as selected by the Contractor and approved by the Engineer, the Contractor shall restore existing curbs, gutters, sidewalks, and asphalt at no additional cost to the City.

#### MEASUREMENT AND PAYMENT

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 therefor.

## SECTION SP-18 – CONSTRUCTION STAKING

The Contractor shall provide all construction staking and surveying. All working stakes shall be established by a licensed Land Surveyor or a registered Civil Engineer authorized to practice land surveying pursuant to Section 8725 of the Business and Professions Code of California. The Contractor shall be held responsible for the correctness of such working stakes. The Contractor shall furnish the City Engineer legible notes ten (10) calendar days prior to the Contractor starting work in the area staked. The notes shall show the location of the working stakes in relation to the construction centerline or reference line, and all calculations used to reach the results of information written on the working stake marker. The location of the working stakes shall conform to the latest edition of the Caltrans Surveys Manual as shown in Chapter 12.

The Contractor shall provide a qualified “Grade Setter” to check horizontal and vertical alignment of all improvements in progress so that improvements will be built to conform to the lines, widths, and grades on the approved plans or any change order issued by the Engineer. The Contractor shall make available the “Grade Setter” to work with the City’s Inspector on checking or verifying all grade stakes, blue tops, form work, etc., when requested by the Inspector. The “Grade Setter” shall provide all necessary equipment and tools to perform this work.

Since this is a Lump Sum Bid Item, the Contractor is responsible for any and all re-staking expenses. The only exception is if there is found to be an error in the approved plans. All additional cost considerations will be included as part of any Change Order.

The Contractor shall preserve all existing benchmarks, survey control points, reference points, and other permanent points within the project limits. Unless noted in the plans, any survey control damaged by the Contractor shall be replaced by the Contractor’s licensed Land Surveyor at no cost to the Engineer.

In addition to the survey work required for establishing “...the lines, widths, and grades on the approved plans (etc)”, the Contractor shall engage the services of a licensed land surveyor to fully comply with §8771(b) of the Land Surveyors’ Act. This work consists of locating and referencing any/all survey monument(s) that might be “destroyed, damaged, covered, or otherwise obliterated” during the prosecution of this contract. All known reference points are shown in the Plans. Thereafter, the Contractor’s surveyor shall prepare, submit, and file for pre-construction and post-construction Corner Records as required.

### MEASUREMENT AND PAYMENT

The contract lump sum price paid for “**Construction Staking [Bid Item #5]**” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in construction staking layout, complete in place, including maintenance and replacement of stakes for use by the Engineer, as shown on the plans, as specified in the Standard Specifications these Special provisions, and as directed by the Engineer.

## SECTION SP-19 – EARTHWORK

This work shall be performed in accordance with Section 19, “Earthwork,” of the State Standard Specifications, these Special Provision Specifications and as directed by the Engineer.

Structure excavation and backfill shall conform to Section 19-3 "Structure Excavation and Backfill" of the Standard Specifications.

Earthwork shall consist of performing all operations necessary to excavate only the materials required to construct the soldier pile retaining wall and install lagging between the piles and the access area required to install stitch piles on City property, regardless of character and subsurface conditions from the roadway embankment. Earthwork shall also include all moving and compacting of earthen materials as shown on the plans unless stated otherwise in these special provisions.

The Contractor shall take all necessary precautions to avoid damage to existing facilities to remain in place including Concrete Curb and Gutter, AC pavement, Sanitary Sewer, Storm Drains, Water Lines and all other utilities in the project site area. Any damaged items shall be repaired or replaced to the satisfaction of the Engineer and the City. The Contractor shall coordinate the work of this section with all other work and shall construct and maintain shoring, bracing, supports, and environmental site protection measures as required.

Contractor shall install BMPs as identified on the Erosion Control Plan as needed for site protection including construction fencing/silt fencing, prior to the start of any on-site excavation, grading and demolition.

All excess excavated soil, as well as unsuitable and/or oversized native material or organic soil, that cannot be used for the retaining wall backfill shall become the property of the Contractor and be disposed of outside the road right-of-way at a legal dumpsite. No extra or separate payment will be made for stockpiling or re-handling of any material.

After clearing and grubbing, removal of the existing asphalt pavement, and/or concrete in the locations shown in the Plans, the Contractor shall excavate aggregate base, native materials, or other substances of whatever nature to the required subgrade depth as shown on the Plans or as directed by the Engineer.

The Contractor shall complete earthwork including excavation, hauling, embankment, compaction, and fine grading of soil to establish the elevations as shown in the Plans. The following definitions apply to this section:

- A. Borrow: Approved soil material for use as Structural Fill or Structural Backfill. This material shall have a Plasticity Index equal to 12 or less, be primarily granular and have less than 30% passing the #200 sieve.
- B. Excavation: Removal of material encountered above subgrade elevations.
  - 1. Authorized Over-Excavation: Excavation below subgrade elevations or beyond indicated horizontal dimensions as shown on Plans or authorized by the Engineer.

2. Unauthorized Over-Excavation: Excavation below subgrade elevations or beyond indicated horizontal dimensions without authorization by the Engineer. The Engineer will not pay for unauthorized excavation.
- C. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, base or topsoil materials.
- D. Unsuitable Material: Any soil material that is not suitable for a specific use on the Project. The Engineer will determine if a soil material is unsuitable.

The Contractor shall:

- A. Protect open excavations with fences, covers and railings to maintain safe pedestrian and vehicular traffic passage.
- B. Prevent erosion of freshly graded areas during construction and until such time as permanent drainage and erosion control measures have been installed.
- C. Temporarily stockpile fill material in an orderly and safe manner and in a location approved by the Engineer.
- D. Provide dust and noise control in conformance to SECTION SP-11 – EROSION CONTROL PLANS AND SWPPP of these Special Provision Specifications.
- E. Do not enter environmental sensitive areas as directed by the Engineer. Protect these areas from soil or sediment resulting from grading operations.

Perform excavation, filling, compaction and related earthwork under the observation of the Engineer. Materials placed without approval of the Engineer will be presumed to be defective and, at the discretion of the Engineer, shall be removed and replaced at no cost to the City. Notify the Engineer at least 24-hours prior to commencement of earthwork and at least 48 hours prior to testing.

The Engineer will perform observations and tests required to enable him or her to form an opinion of the acceptability of the Project earthwork. The Contractor shall correct earthwork that, in the opinion of the Engineer, does not meet the requirements of these Special Provision Specifications.

Promptly notify the Engineer of surface or subsurface conditions differing from those disclosed in the Plans or these Special Provision Specifications. First notify the Engineer verbally to permit verification and extent of condition and then in writing. The City will not allow a claim for conditions differing from those anticipated in the Contract Documents unless the Contractor has notified the Engineer in writing of differing conditions prior to the Contractor starting work on affected items.

Excavation shall be accomplished with properly selected equipment, which has been approved by the Engineer and in such manner that the stability of the subgrade is maintained to the greatest extent possible and to prevent damage to underground utilities. The prepared subgrade shall not be permitted to dry and/or crack prior to placement of the next covering layer.

All excess soil shall become the property of the Contractor and shall be disposed of as indicated in the Section SP-15<sup>1</sup> - Disposal of Materials of these Special Provision Specifications.

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<sup>1</sup> Addendum 1

MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials, equipment, and incidentals for doing all the work involved in Earthwork shall be considered as included in the prices paid for the various items of work unless otherwise defined in these Specifications and no additional compensation will be allowed therefor.

## SECTION SP-20 – CONCRETE

Work covered by this section includes installation of concrete for fence foundation, stitch pile wall foundation, and guard rail foundation as shown on the plans and as described in these Specifications.

The Contractor shall submit reports of tentative concrete mix design and testing including:

1. Slump on which the design is based.
2. Total gal of water per cu yd.
3. Brand, type composition, and quantity of cement.
4. Brand, type, composition, and quantity of fly ash.
5. Specific gravity and gradation of each aggregate.
6. Ratio of fine to total aggregates.
7. Surface-dry weight of each aggregate per cu yd.
8. Brand, type, ASTM designation, active chemical ingredients and quantity of each admixture.
9. Air content.
10. Compressive strength based on 7 day and 28 day compression tests.
11. Time of initial set. Submit suppliers certified fly ash test reports for each shipment delivered to concrete supplier.
  1. Physical and chemical characteristics.
  2. Certification of compliance with the specifications.
  3. Signed by Contractor and concrete supplier.

Concrete Mix Designs Shall Comply with ASTM C94. The Contractor shall be responsible for all costs associated with the required mix design.

### QUALITY CONTROL / ACCEPTANCE TESTING

Field testing shall include testing for concrete slump as per ASTM C-143 and compressive strength (C39). Such testing shall be at a frequency determined by the Engineer and shall be performed by the Owner's laboratory at the Owner's expense. The Contractor shall furnish the concrete necessary for casting test cylinders.

### MATERIALS

#### PORTLAND CEMENT CONCRETE

Portland cement concrete shall conform to the provisions in Section 90, "Portland Cement Concrete," of the Standard Specifications and these special provisions.

References to Section 90 2.01, "Portland Cement," of the Standard Specifications shall mean Section 90 2.01, "Cement," of the Standard Specifications.

Mineral admixture shall be combined with cement in conformance with the provisions in Section 90 4.08, "Required Use of Mineral Admixtures," of the Standard Specifications for the concrete materials specified in Section 56 2, "Roadside Signs," of the Standard Specifications.

The requirements of Section 90 4.08, "Required Use of Mineral Admixture," of the Standard Specifications shall not apply to Section 19 3.025C, "Soil Cement Bedding," of the Standard Specifications.

Qualified testing laboratories shall conform to the following requirements:

- A. Laboratories performing ASTM Designation: C 1293 shall participate in the Cement and Concrete Reference Laboratory (CCRL) Concrete Proficiency Sample Program and shall have received a score of 3 or better on all tests of the previous 2 sets of concrete samples.
- B. Laboratories performing ASTM Designation: C 1260 shall participate in the Cement and Concrete Reference Laboratory (CCRL) Pozzolan Proficiency Sample Program and shall have received a score of 3 or better on the shrinkage and soundness tests of the previous 2 sets of pozzolan samples.

Aggregates on the list shall conform to one of the following requirements:

- A. When the aggregate is tested in conformance with the requirements in California Test 554 and ASTM Designation: C 1293, the average expansion at one year shall be less than or equal to 0.040 percent; or
- B. When the aggregate is tested in conformance with the requirements in California Test 554 and ASTM Designation: C 1260, the average of the expansion at 16 days shall be less than or equal to 0.15 percent.

The amounts of cement and mineral admixture used in cementitious material shall be sufficient to satisfy the minimum cementitious material content requirements specified in Section 90 1.01, "Description," or Section 90 4.05, "Optional Use of Chemical Admixtures," of the Standard Specifications and shall conform to the following:

- A. The minimum amount of cement shall not be less than 75 percent by mass of the specified minimum cementitious material content.
- B. The minimum amount of mineral admixture to be combined with cement shall be determined using one of the following criteria:
  - 1. When the calcium oxide content of a mineral admixture is equal to or less than 2 percent by mass, the amount of mineral admixture shall not be less than 15 percent by mass of the total amount of cementitious material to be used in the mix.

2. When the calcium oxide content of a mineral admixture is greater than 2 percent by mass, and any of the aggregates used are not listed on the approved list as specified in these special provisions, then the amount of mineral admixture shall not be less than 25 percent by mass of the total amount of cementitious material to be used in the mix.

3. When the calcium oxide content of a mineral admixture is greater than 2 percent by mass and the fine and coarse aggregates are listed on the approved list as specified in these special provisions, then the amount of mineral admixture shall not be less than 15 percent by mass of the total amount of cementitious material to be used in the mix.

4. When a mineral admixture that conforms to the provisions for silica fume in Section 90 2.04, "Admixture Materials," of the Standard Specifications is used, the amount of mineral admixture shall not be less than 10 percent by mass of the total amount of cementitious material to be used in the mix.

5. When a mineral admixture that conforms to the provisions for silica fume in Section 90 2.04, "Admixture Materials," of the Standard Specifications is used and the fine and coarse aggregates are listed on the approved list as specified in these special provisions, then the amount of mineral admixture shall not be less than 7 percent by mass of the total amount of cementitious material to be used in the mix.

C. The total amount of mineral admixture shall not exceed 35 percent by mass of the total amount of cementitious material to be used in the mix. Where Section 90 1.01, "Description," of the Standard Specifications specifies a maximum cementitious content in kilograms per cubic meter, the total mass of cement and mineral admixture per cubic meter shall not exceed the specified maximum cementitious material content.

**INSTALLATION**

Concrete for Fence and Guardrail :

General Concrete Facilities including fence foundation, guardrail foundation etc. shall meet the following requirements:

Min. Compressive Strength:	3,500 psi @ 28 days
Polypropylene Fiber Reinforcement:	1.5 lbs/cy (0.01% by volume), 3/4 inch minimum length
Maximum Slump	5 inches
Lamp Black	2 lbs minimum



### MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials, equipment, and incidentals for doing all the work involved in Concrete shall be considered as included in the prices paid for the various items of work unless otherwise defined in these Specifications and no additional compensation will be allowed therefor.

## SECTION SP-21 - SOLDIER PILE RETAINING WALL

Wood lagging used shall conform to the provisions of in Section 49, "Piling," of the State Standard Specifications and these Special Provisions Specifications.

This work shall consist of providing all labor, materials, and equipment necessary to fabricate and furnish the soldier piles, create and maintain the shaft excavations, set and brace the soldier piles into position and encase the soldier piles in concrete encasement to the specified elevation. Also included in this work are furnishing and installation of the precast concrete lagging, and the furnishing and installation of backfill material, drainage panels, subdrain, permeable material, filter fabric behind lagging. All work shall be according to the details shown on the plans and these specifications, and as directed by the Engineer.

Soldier Pile used shall conform to the provisions of in Section 49, "Pile," and Section 55, "Steel Structures" of the State Standard Specifications and these Special Provisions Specifications.

This work shall consist of providing all labor, materials, and equipment necessary to fabricate and furnish the soldier piles, create and maintain the shaft excavations, set and brace the soldier piles into position and encase the soldier piles in concrete encasement to the specified elevation. Also included in this work are furnishing and installation of the precast concrete lagging, and the furnishing and installation of backfill material, drainage panels, subdrain, permeable material, filter fabric behind lagging. All work shall be according to the details shown on the plans and these specifications, and as directed by the Engineer.

The City's representative Geotechnical Engineer shall observe drilling operations for construction of Soldier Piles when required by Engineer. Contractor shall notify Engineer at least 72 hours in advance of construction of Soldier Piles.

### GENERAL

#### **Description**

Work Included - The work in this section shall include the materials, equipment, and labor necessary to construct the steel soldier pile and timber lagging retaining wall and related work as shown on the drawings. This will include spoils stockpiling and offsite disposal, drilling fluid handling and disposal, temporary casing (as necessary) installation and removal, and all other work or materials required to complete the soldier pile retaining wall.

#### **Definitions**

Filter Fabric - Manufactured geotextile fabric used to segregate and contain differing material while allowing the passage of water through the fabric.

Lagging – Pressure Treated Timber boards that span between soldier piles and are part of the retaining wall. The lagging retains soil and transfers the load to the soldier piles.

Permeable Material - Sand, gravel, and/or crushed stone designed to allow the drainage of water through the material. Permeable material shall conform to the provisions of Section 68-2.02F, "Permeable Material," of the Standard Specifications. The permeable material shall conform to the grading requirements for Class 2, permeable material and must consist of washed angular crushed stone.

Soldier Pile - Structural steel beam encased in concrete within a drilled hole. The upper portion of the steel beam, not embedded in concrete, retains soil and is part of the visible wall. The loads from the upper portion are transferred to the concrete encased lower portion.

Stitch Pile - Structural steel beam encased in concrete within a drilled hole up to the ground surface unless otherwise directed.

### **Quality Assurance**

- A. Notification - No site work shall be performed without notification of the City at least 2 full working days prior to commencement of work.
- B. Site Information - The Contractor shall satisfy himself as to the nature and quantity of materials likely to be encountered at the site and other work to be performed, and any differences between site conditions shown on the drawings and the actual conditions immediately prior to commencement of work.
- C. Inspection and Testing - The Contractor shall provide the City with access to the work and all reasonable facilities for inspecting and checking the work.
- D. Conformance of Materials - All materials used in the construction of the drilled piers shall conform to the most recent version and relevant standards of the American Society for Testing and Materials (ASTM), American Concrete Institute (ACI), International Association of Foundation Drilling (ADSC), Caltrans Standard Specifications (Caltrans), or other standards specified by the Engineer.

### **Products**

Concrete - The soldier pile concrete encasement shall conform to the provisions in Section 90, "Concrete," of the Standard Specifications and these Special Provisions. The concrete must have a quality of workability suitable for uniform and proper placement, and when cured must have the required strength and durability. The concrete shall have a minimum 28 day compressive strength ( $f_c$ ) of 4,000 psi, unless otherwise specified by the Engineer.

When concrete is placed, the concrete slump shall conform to the requirement of the following Table measured in accordance with ASTM C-143.

<u>Slump Range</u>	<u>Conditions</u>
4"± 1"	Placed in uncased drilled hole, free of water. No reinforcement or reinforcement spaced 12 inches or greater. No underreamed bell.
4"± 1"	Placed in drilled hole, free of water. Temporary casing used. Reinforcement closer than 12 inches.
6" ± 1"	Placed by tremie under water or under drilling mud.

Steel Soldier Piles - The steel shall be ASTM A-36, unless otherwise specified by the Engineer. The length and size of the steel soldier piles shall be as shown on the plans.

Timber Lagging - Wood lagging shall be Douglas-Fir No. 1 or better. The lagging shall be pressure treated in accordance with AWWA Specifications P-5 using ACZA with a net retention of at least 0.6 pounds per cubic foot. The sizes and lengths of timber lagging required are shown on the plans. The lagging shall be cut so that there is a tight fit between soldier piles. All cut off ends shall be treated by applying two coats of preservative. The preservative shall not be applied in wet or damp weather. Unless otherwise shown on the plans, lagging shall be placed level. Pressure treated lumber shall be used as spacers to provide the designed gap between lagging and as blocking between the steel and lagging.

Permeable Material - Permeable material shall conform to the provisions of Section 68-2.02F, "Permeable Material," of the Standard Specifications. The permeable material shall conform to the grading requirements for Class 2, permeable material and must consist of washed angular crushed stone.

Filter Fabric - Filter Fabric and geocomposite drain behind wood lagging shall conform to Section 96 "Geosynthetics" of the Standard Specifications, these Special Provisions and the Plans. Filter fabric shall consist of Mirafi 140N.

Select Fill - On site or imported mixture of clay, silt, sand and/or gravel with a maximum particle size of four inches, a Plasticity Index less than 15, and a Liquid Limit less than 40, and contain no organic matter.

Protective Coating for Steel - Protective coating for exposed steel shall be 2 coats of Black Coal Tar Epoxy, Koppers Bitumastic No. 3000-M, Americoat 78 HB, or equivalent approved by the Engineer.

Substitute Material - The Contractor may not substitute material unless a full description and specifications for such material have been submitted to the Engineer in sufficient time (but no less than 48 hours) to allow for review and approval or disapproval prior to intended use.

Retaining Wall Drainage - Granular drainage backfill material shall be placed between the cut bank and soldier pile walls. The drainage material shall consist of ¾ - inch drain rock material in accordance with Section 68 of the Caltrans Standard Specifications. Permeable material shall be placed from the bottom of the wall to within 1 foot of the ground surface and shall be wrapped on filter fabric. The upper 1 foot of backfill shall be soil, or other impermeable material, as shown on the plans. A 4-inch diameter perforated pipe, PVC Schedule 40 or SDR-35 shall be placed at 6-inches above the bottom of the drain rock material. The perforated pipe shall be connected to solid pipe outfall locations as shown on the Plans.

Retaining Wall Backfill - The area between the excavation and the retaining wall drainage shall be backfilled with select fill.

Backfill Compaction - Permeable material and select fill used as backfill shall be compacted to at least 90 percent relative compaction in accordance with ASTM test method D1557.

## **Execution**

Pre-Construction Meeting - A pre-construction meeting shall be held at the site at which time the Contractor is to present his proposed construction method and schedule. The meeting will include the Contractor's representative, the Engineer and Owner's representative.

Equipment - Soldier pile and stitch pile excavations shall be drilled with a bucket or auger type drilling rig or other equipment of suitable capacity and power to excavate to the required diameter and depth. The diameter of the drilling bucket or auger bit, or the inside diameter of the casing, shall be equal to or larger than the required diameter, as shown on the plans. The drilling tools shall include carbide tipped augers and rock coring buckets as necessary for the conditions at the site.

Alignment - All soldier pile and stitch pile excavations shall be carefully located and aligned by the Contractor in the field. The center of the top of the drilled hole shall not deviate more than 2 inches in any direction from the center location shown on the plans.

Excavation - The soldier pile and stitch pile excavations shall be performed under the intermittent observation of the Engineer to confirm that subsurface conditions are as expected. The Contractor shall keep records of the excavation depth and the transition depth from soil to rock for each drilled excavation. Adjustments to the pier depths as shown on the plans, may be required by the Engineer.

- A. Soil - Soil can be excavated with auger type equipment. If the drilled excavation is unstable and/or sloughing of the sides is occurring, then temporary casing must be used to maintain stability during and after drilling. As an alternate, drilling mud may be used to maintain hole stability, but only after the Contractor has fully described his proposed method, materials, and procedures and has received approval of the Engineer.
- B. Rock - The Orinda Formation Weathered rock can generally be excavated using auger type equipment. We do not anticipate encountering hard rock conditions. "Hard rock" is

defined as a penetration rate slower than 30 minutes of continuous drilling per foot using a rock core barrel or other hard rock equipment with at least 3,000 lbs. downward pressure. The excavation and determination of "hard rock," if a separate pay item, shall be determined by the Engineer. Where hard rock is encountered, the diameter of the drilled hole may be reduced, if approved by the Engineer, to no less than the diameter which will accommodate the steel soldier pile plus the required concrete cover.

- C. Clean-out - All water, loose soil, rocks and other debris shall be removed from the bottom of the drilled excavation prior to placing steel or concrete.

Steel Placement - Prior to placing the steel, a minimum of 3 inches of dry concrete shall be placed in the bottom of the hole to provide concrete cover for the steel. The steel soldier piles shall be placed and securely blocked from the sides of the hole so that there is a minimum concrete cover of 3 inches.

The soldier piles shall not vary more than  $\sqrt{2}$  inch from a string line sets along the planned alignment. The verticality of each soldier pile shall not vary more than  $\sqrt{2}$  inch in 10 feet.

#### Construction Tolerances of Soldier Piles

The alignment and verticality of each soldier pile shall be checked by the Contractor and Engineer. The soldier piles shall be drilled and located within the excavation to satisfy the following tolerances except as shown on plans:

1. The center of the soldier pile shall be within 1 inch of plan station and 1/2-inch offset at the top of the shaft.
2. The out of vertical plumbness of the soldier pile shall not exceed 0.83 percent.
3. The top of the soldier pile shall be within  $\pm 1$  inches of the plan elevation.

Concrete Placement - Each pier excavation and steel placement will be inspected and approved by the Engineer prior to placement of concrete. Concrete placement shall start as soon as possible after the drilling, de-watering, clean-out and steel placement has been inspected and shall progress in a continuous operation so that not more than one hour elapses between beginning and completion of the concrete placement in any pile excavation. An accurate record of the amount of concrete placed in each excavation shall be maintained by the Contractor.

- A. Concrete Placement in Dry Excavation - To prevent segregation, concrete shall be placed so that it does not deflect off the sides of the holes or steel section. Concrete shall not free fall more than 5 feet. Tremie pipes with hoppers or flexible trunks, or approved alternate methods of placement shall be used where necessary.
- B. Concrete Placement in Slurry Supported Excavation - Concrete placed in a slurry supported excavation or an excavation containing ground water in excess of 6 inches shall be tremied into the excavation. The concrete shall be placed by tremie pipe and hopper or pumped into the excavation with the pipe or pump hose placed at the bottom of the drilled hole. The pipe or pump hose shall be maintained at least 2 feet below the top

of concrete as the level of concrete rises in the excavation. The top of concrete level shall be continuously measured by the Contractor.

- C. Concrete Placement in Cased Excavation - As concrete is placed, the casing, if used, shall be removed from the hole. The bottom of the casing shall be maintained a sufficient distance, but no less than 2 feet below the top of the concrete to prevent intrusion of the surrounding rock or soil into the hole. The top of concrete level shall be continuously measured by the Contractor. The concrete shall not be permitted to separate during withdrawal of the casing, as evidenced by a rise of the surface of the concrete as the casing is being pulled. Hammering, vibrating the concrete internally or vibrating the casing, or other means shall be used as necessary to prevent separation. If the concrete column becomes separated, the steel soldier pile shall immediately be withdrawn from the hole and the concrete removed before it sets up.

Drilling Slurry - Drilling slurry shall consist of a polymer or mineral base material. Mineral slurry shall have both a mineral grain size that will remain in suspension with sufficient viscosity and gel characteristics to transport excavated material to a suitable screening system. The percentage and specific gravity of the material used to make the suspension shall be sufficient to maintain the stability of the excavation and to allow proper concrete placement.

Protective Coating for Steel - All exposed steel that is not encased in concrete shall be protected with 2 coats of approved coating applied in conformance with the manufacturer's recommendations. Any portions of the protective coating that are scratched, nicked or otherwise disturbed during construction shall be touched-up with additional coats of the metal finish.

Lagging - Timber lagging shall be installed between the soldier piles. The lagging shall be cut so that there is a tight fit between soldier piles. All cut off ends shall be treated by applying two coats of preservative. The preservative shall not be applied in wet or damp weather. Unless otherwise shown on the plans, lagging shall be placed level. Redwood or pressure treated lumber shall be used as spacers to provide the designed gap between lagging and as blocking between the steel and lagging, as shown on the plans.

Retaining Wall Drainage - Granular drainage backfill material shall be placed between the cut bank and soldier pile walls. The drainage material shall consist of Class 2 permeable material in accordance with Section 68 of the Caltrans Standard Specifications. Permeable material shall be placed from the bottom of the wall to within 1 foot of the ground surface and shall be wrapped on filter fabric. The upper 1 foot of backfill shall be soil, or other impermeable material, as shown on the plans. A 4-inch diameter perforated pipe, PVC Schedule 40 or SDR-35 shall be placed at 6-inches above the bottom of the permeable material with the perforated holes faced down. The perforated pipe shall be connected to solid pipe outfall locations as shown on the Plans.

Retaining Wall Backfill - The area between the excavation and the retaining wall drainage shall be backfilled with select fill.

Backfill Compaction - Permeable material and select fill used as backfill shall be compacted to at least 90 percent relative compaction in accordance with ASTM test method D1557.

### Construction Requirements

The shaft excavation for each soldier pile shall extend to the tip elevation indicated on the plans for soldier piles terminating in soil or to the required embedment in rock when rock is indicated on the

contract plans. The Contractor shall satisfy the following requirements:

- a. **Drilling Methods** - No shaft excavation shall be made adjacent to a soldier pile with encasement concrete that has a compressive strength less than 1500 psi unless otherwise approved by the Engineer. Materials removed or generated from the shaft excavations shall be disposed of by the Contractor. Drilling operations and concrete placement shall be coordinated so that drilled holes are left open a minimum amount of time. The Contractor shall be prepared to remoisten the sides of the holes immediately prior to placing of concrete encasement. Drilled holes shall be drilled in alternate sequence. At no time shall there be consecutive open drilled holes.
- b. **Drilling Slurry** - During construction, the level of the slurry shall be maintained at a height sufficient to prevent caving of the hole. In the event of a sudden or significant loss of slurry to the hole, the construction of that shaft shall be stopped and the shaft excavation backfilled or supported by temporary casing until a method to stop slurry loss, or an alternate construction procedure, has been developed by the contractor and approved by the Engineer.
- c. **Obstructions** - Obstructions shall be defined as any object (such as but not limited to, boulders, logs, old foundations, etc.) that cannot be removed with normal earth drilling procedures, but requires special augers, tooling, core barrels or rock augers to remove the obstruction. When obstructions are encountered, the Contractor shall notify the Engineer and upon concurrence of the Engineer, the Contractor shall begin working to core, break up, push aside, or remove the obstruction. Lost tools or equipment in the excavation, as a result of the Contractor's operation, shall not be defined as obstructions and shall be removed at the Contractor's expense.

### MEASUREMENT AND PAYMENT

The contract price paid per square foot of **“Wood Lagging [Bid Item #6]”** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved, including the installation of filter fabric behind wood lagging, earthwork, closure fill pressure treated wood blocking, drainage pipe, class II permeable rock backfilled behind soldier pile wall, miscellaneous metals, structural shapes and hardware, soldier pile wall earthwork including structure excavation (soldier pile wall), structure backfill (soldier pile wall),



and other appurtenances, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer. Crushed drain rock material wrapped in filter fabric shall be included in the contract price paid for wood lagging, and no separate payment is made therefor.

The contract price per each pile of “**Soldier Pile [Bid Item #7]**” shall include full compensation for furnishing all labor, materials, equipment, and incidentals and for doing all the work involved in but not limited to soldier pile drilling, , I-beam installation, concrete installation, temporary storage of drilling fluid/groundwater, disposal of drilling fluid/groundwater, drill spoils stocking piling, hauling and disposal in accordance with all laws, rules and regulations applicable to this work and testing for disposal of fluids and spoils as required for proper disposal as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

## SECTION SP-21A - TIEBACK ANCHORS

### APPLICABLE STANDARD SPECIFICATIONS

The anchor tendon shall be manufactured according to this specification and approved shop-drawing details made by DYWIDAG Systems International, Inc. or approved equal.

### TIE-ROD MANUFACTURER

Tie-rod shall be double corrosion protected as manufactured by DYWIDAG Systems International, Inc. or approved equal.

### SUBMITTALS

The Contractor shall submit to the Engineer for review and approval anchor shop drawings showing all relevant details described below.

### GENERAL

Tieback Anchors consisting of holes drilled in foundation material, grouted steel bars or strands, and anchorage assemblies, and testing of installed anchors, shall conform to the details shown on the plans, the provisions of Section 50, "Prestressing Concrete," of the Standard Specifications and these Technical Specifications.

The Contractor shall be aware that his drilling may encounter hard rock which may cause more difficult drilling operations.

The Contractor shall determine the bond length necessary to meet acceptance criteria specified herein.

The submittal of reduced prints of corrected original tracings will not be required for tieback anchor installations.

In fabricating, handling, shipping, and placing tieback anchors, adequate care shall be taken to avoid damage to the sheathing. All damage to the sheathing caused by handling and fabrication prior to tieback anchor installation shall be repaired or replaced as determined by the Engineer. Repair procedure for the sheathing shall be included in the working drawings.

At the Contractor's option, he/she may submit, for approval by the Engineer, calculations and details for furnishing an alternative number of tiebacks that provides the same horizontal component and distribution of the design force as provided by the planned tiebacks. If the number of tiebacks is proposed to be reduced, alternative wall details shall be furnished, for approval by the Engineer. Alternative design calculations, if applicable, shall be prepared and sealed by an Engineer who is licensed as a Structural Engineer in the State of California.

### MATERIALS

Whenever "member" is referred to in Section 50, "Prestressing Concrete," of the Standard Specifications, it shall be considered to mean tieback anchor.

Structural steel for the tieback retaining wall shall conform to the requirements in Section 55, "Steel Structures," of the Standard Specifications and these Technical Specifications. Structural steel shall

consist of the steel tube and the bearing plate of the anchorage assembly and the anchorage enclosure. The anchorage assembly and the anchorage enclosure shall be galvanized as indicated on the plans.

The permanent bearing plate of the tieback anchor shall effectively distribute the design force (T), to the concrete, such that the concrete bearing stress does not exceed 11 mega pascals and the bending stress does not exceed 0.55 fy for steel nor 0.36 fy for cast steel or cast iron.

Grout shall conform to the provisions in Section 50-1.09, "Bonding and Grouting," of the Standard Specifications. Fine aggregate may be added to the grout mixture of Portland cement and water used outside of the grouted sheathing in drilled holes which are 8 inches or greater in diameter, but only to the extent that the cement content of the grout is not less than 31 lbs. per cubic foot of grout. Fine aggregate, if used, shall conform to the provisions in Section 90-2, "Materials," and Section 90-3, "Aggregate Gradings," of the Standard Specifications.

The plastic sheathing for tieback anchors shall conform to the following: polyvinyl chloride (PVC) sheathing, high-density polyethylene (HDPE) sheathing, and polypropylene sheathing. Corrugated plastic sheathing shall be PVC or HDPE. The width of corrugations, the distance between corrugations, and the height of corrugations of corrugated plastic sheathing shall be approximately the same.

Polyvinyl chloride (PVC) sheathing may be used for smooth sheathing for bar tendons and corrugated sheathing. Polyvinyl chloride (PVC) sheathing shall conform to ASTM Designation: D 1784, Class 13464-B. Corrugated PVC sheathing shall have a nominal wall thickness of 0.04 inches. High-density polyethylene (HDPE) sheathing may be used for smooth sheathing for bar tendons and corrugated sheathing. High-density polyethylene (HDPE) sheathing shall have a density between 58 lbs/ft<sup>3</sup> and 60 lbs/ft<sup>3</sup> as measured in accordance with ASTM Designation: D 792, A 2. Corrugated HDPE sheathing shall have a nominal wall thickness of 0.06 inches for sheathing with an outside diameter of 3 inches or greater, and a nominal thickness of 0.04 inches for sheathing with an outside diameter less than 3 inches, with a tolerance of minus 0.01 inches.

High-density polyethylene (HDPE) sheathing may be used for the smooth sheathing encapsulating individual strands of strand type tendons. Smooth HDPE sheathing for encapsulating strands shall have a minimum wall thickness of 0.04 inches. Polypropylene sheathing may be used for the smooth plastic sheathing encapsulating individual strands of strand type tendons. Polypropylene sheathing shall have a density between 56 lbs/ft<sup>3</sup> and 57 lbs/ft<sup>3</sup>. Smooth polypropylene sheathing shall have a minimum wall thickness of 0.04 inches.

The smooth sheathing for the unbonded length of the individual strands shall have sufficient strength to prevent damage during construction operations, shall be watertight, chemically stable without embrittlement or softening, and nonreactive with concrete, steel or corrosion inhibiting grease. Smooth plastic sheathing, including joints, shall be watertight.

The corrugated sheathing, including joints, shall have sufficient strength to prevent damage during construction operations, shall be grout-tight and watertight, chemically stable without embrittlement or softening, and nonreactive with concrete, steel or corrosion inhibiting grease.

The transition between the corrugated plastic sheathing and the anchorage assembly shall be an approved detail that allows stressing to the design force without evidence of distress in the corrugated plastic sheathing.

Additional requirements for tiebacks with strand type tendons are as follows:

The strand anchorage assembly shall include an approved permanent type wedge retaining device. Where high strength bolts are a part of the device, the tensile capacity of the high strength bolts shall be 0.3 times the ultimate strength of the strands.

The individual strands of a tendon, except for the bonded length, shall be fully coated with corrosion inhibiting grease and then encapsulated by a smooth HDPE or polypropylene sheath. The corrosion inhibiting grease shall fill all space between strand wires and shall encapsulate the strand giving an encasement diameter at least 0.005 inches greater than the diameter of the bare strand. The sheath shall be hot melt extruded onto the strand or shall be shop applied by an approved method that assures that all spaces between the sheath and the strand and between the strand wires are filled with corrosion inhibiting grease.

The corrosion inhibiting grease shall provide a continuous nonbrittle film of corrosion protection to the prestressing steel and lubrication between the strand and the sheathing, shall resist flow from the sheathing, shall be chemically stable and nonreactive with the prestressing steel, sheathing material and concrete, and shall be organic with appropriate polar, moisture displacing, and corrosion inhibiting additives.

The corrosion inhibiting grease shall have the physical properties listed in Table 3.2.1 of the Post Tensioning Manual, Fourth Edition, by the Post Tensioning Institute and as modified below. At least 40 days before use, a sample from the lot to be used and test results shall be provided for the corrosion inhibiting grease.

TEST	REQUIREMENTS	ASTM DESIGNATION:
Water Soluble Ions: Nitrates	10 g/kg max.	D 3867
Corrosion Test: 5% Salt Fog @ 38°C. 125 µm coating on 3 inches x 6 inches Q panel Type S, 1000 hours min.	Grade 7 or better	B 117, D 610
Compatibility with sheathing: Hardness change & volume change of polymer after exposure to grease 40 days at 66°C.	15% max. 10% max.	D 4289, Except use D 792 for density

A Certificate of Compliance conforming to the provisions in Section 6 1.07, "Certificates of Compliance," of the Standard Specifications, shall be furnished to the Engineer certifying that the corrosion inhibiting grease complies with the requirements herein if sample and test results are not provided for the lot used.

#### CONSTRUCTION

Tieback anchors shall be installed in accordance with the manufacturer's recommendations. In case of a conflict between the manufacturer's recommendations and these Technical Specifications, the Technical Specifications shall prevail.

Water and grout from tieback anchor construction operations shall not be permitted to fall on public traffic, to flow across shoulders or lanes occupied by public traffic, or to flow into landscaping, gutters or other drainage facilities. Excessive amounts of water shall not be used in any of the drilling and the tieback anchor installation procedures.

Tieback anchor steel shall be protected prior to completion of all grouting against rust, corrosion and physical damage as provided in said Section 50, "Prestressing Concrete," of the Standard Specifications. In addition, there shall be no evidence of distress in the plastic sheathing or crushing of the cement grout within the pregrouted sheathing.

The tieback anchorage assembly shall be protected against rust, corrosion and physical damage, prior to completion of all grouting of enclosure or encasement in concrete.

For each tieback, the placement of reinforcement and concrete shall all be completed within one work shift.

The Contractor shall have available at all times a suitable light and a measuring device for inspecting the entire depth of holes before the placement of reinforcement of Soil Nails or Tiebacks.

Material generated from drilling holes shall become the property of the Contractor and shall be disposed of outside the right of way.

The tieback anchor installation method selected by the Contractor shall be sufficient to achieve the loadings specified herein. Holes for tieback anchors shall be drilled in the foundation to a depth sufficient to provide the necessary bond length beyond the minimum unbonded length shown on the plans.

The Contractor shall keep a daily drilling log regarding drilling for tiebacks and provide such logs to Engineer each day subsequent to drilling. The logs shall be in a form as approved by the Engineer and shall show the depth drilled per hour for each pile as well as any pertinent information (such as the location and depth of water) determined necessary by the Engineer.

Tieback anchorage holes shall be drilled by either the rotary or rotary percussion drilling method. The diameter of the drilled hole shall be large enough to provide a minimum of 1 inch of grout cover within the bonded length of the tendon. Centralizers shall be used within the bonded length of the tendon.

Pregrouting shall occur at least 48 hours before placing the tendon in the drilled hole.

Prior to installing each anchor assembly into the drilled hole, the anchor assembly shall be clean and free of oil, grease or other extraneous substances, and any damage to the sheathing shall be repaired or replaced.

Grout for all stages of tieback construction shall be injected at the low end of the void being filled and shall be expelled at the high end until there is no evidence of entrapped air, water or diluted grout. The grout shall be placed using grout tubes, unless another method is approved by the Engineer. The quantity of the grout and the grout pressures shall be recorded.

Voids in the foundation material may be encountered along the length of the drilled hole which may affect drilling and grouting. Measures such as the use of a "grout sock" may be necessary to avoid the excessive loss of grout into the voids encountered.

After placing initial grout, the anchor shall remain undisturbed until the grout has reached a strength sufficient to provide anchorage during testing operations.

Additional requirements for tiebacks with bar type tendons are as follows:

The bar tendons in the unbonded area shall be sheathed with smooth sheathing that extends into the tieback anchorage assembly, as shown on the plans. For this portion of smooth sheathing there is no minimum wall thickness and the sheathing shall be either PVC or HDPE.

In addition, bar tendons shall be sheathed full-length with corrugated sheathing. The annular space between the bar and the corrugated sheathing shall be pregrouted prior to placing the tendons in the drilled hole. The bar shall be centered in the sheathing.

There shall be a seal between the smooth sheathing and the corrugated sheathing at the top and bottom of the length of smooth sheathing.

For bar tendons, the initial grout in the drilled hole may be placed before or after insertion of the bar tendon.

For drilled holes 6 inches in diameter or less, the initial grout outside of the corrugated sheathing shall extend to within 6 inches of the end of the steel tube of the anchorage assembly. Grout in the unbonded length shall not be placed under pressure. For drilled holes greater than 6 inches in diameter, the initial grout outside of the corrugated sheathing shall be within the limits of the bonded length. After placing the initial grout, the anchor shall remain undisturbed until the grout has reached a strength sufficient to provide anchorage during testing operations.

Additional requirements for tiebacks with strand type tendons are as follows:

Strand tendons shall be sheathed with corrugated sheathing. The individual strands within the bonded length shall be separated by spacers so that the entire surface of each strand is bonded in the grout. The maximum spacing of strand spacers shall be 5 feet. The strand spacers shall be plastic and of a construction and strength that will provide support for the individual strands during construction operations.

Tendons shall be sheathed full length with corrugated sheathing and pregrouted a minimum length of 2 feet before placing the tendon in the hole. After placing the tendon into the drilled hole and before placing initial grout in the drilled hole, the grout shall be injected at the low end of the corrugated sheathing and the grout shall be expelled at the high end until there is no evidence of entrapped air, water or diluted grout.

Anchors in holes of 6 inches diameter and smaller shall be initially grouted to within 6 inches of the end of the steel tube. Grout in the unbonded length shall not be placed under pressure. After placing the initial grout, the anchor shall remain undisturbed until the grout has reached a strength sufficient to provide anchorage during testing operations.

Anchors in holes greater than 6 inches in diameter shall be initially grouted within the bond length. After placing the initial grout, the anchor shall remain undisturbed until the grout has reached a strength sufficient to provide anchorage during testing operations.

## TESTING

All tiebacks shall be load tested by either a performance test or a proof test. Load testing shall be performed against a temporary waler which bears against existing soldier piles or against the permanent concrete waler. The permanent waler shall either attain a compressive strength of 22 mega pascals or cure for seven days before loading. Bearing pads shall be kept a minimum of 12 inches away from the edges of the drilled hole. Temporary yokes and walers shall remain the property of the Contractor. The magnitude of applied test loads shall be determined with a calibrated pressure gauge or a load cell. Movements of the end of the tieback, relative to an independent fixed reference point, shall be measured and recorded to the nearest 0.001 inch at each load increment during the load tests. The Contractor shall perform the measuring and recording and shall furnish the Engineer copies of the recorded movements.

A minimum of 2 tiebacks shall be performance tested. The Engineer shall determine the location of the tiebacks to be performance tested.

The performance test or proof test shall be conducted by measuring the test load applied to the tieback and the tieback end movement during incremental loading and unloading of the anchor in accordance with the loading schedule. The test load shall be held constant for 10 minutes. During the test load hold, the movement of the end of the tendon shall be measured at 1, 2, 3, 4, 5, 6, and 10 minutes. If the total movement between one minute and 10 minutes exceeds one mm, the test load shall be held for an additional 50 minutes. Total movement shall be measured at 15, 20, 25, 30, 45, and 60 minutes. If the test load is held for 60 minutes, a creep curve showing the creep movement between one minute and 60 minutes shall be plotted as a function of the logarithm of time.

LOADING SCHEDULES		
PERFORMANCE TEST		PROOF TEST
	(CONT'D)	
AL	AL	AL
0.25T	0.25T	0.25T
AL	0.50T	0.50T
0.25T	0.75T	0.75T
0.50T	1.00T	1.00T
AL	1.25T	1.25T
0.25T	AL	1.50T (TEST LOAD)
0.50T	0.25T	AL
0.75T	0.50T	

AL	0.75T	
0.25T	1.00T	
0.50T	1.25T	
0.75T	1.50T (TEST LOAD)	
1.00T (CONT'D)	AL	
T = Design force for the anchor shown on the plans (57 Kips)		
AL = Alignment load		

For performance and proof tests, each increment of load shall be applied in less than one minute and held for at least one minute but not more than 2 minutes or as specified above. The observation period for the load hold shall start when the pump begins to apply the last increment of load.

The jacking equipment, including the tendon movement measuring system, shall be stable during all phases of the tieback loading operations.

All tiebacks not performance tested shall be proof tested. If 1.5 times the design force cannot be obtained, the tieback shall be redesigned and replaced. Tieback anchors shall not be retested, unless the tieback bond length is post-grouted after the unacceptable test.

A performance tested tieback is acceptable if:

1. The measured elastic movement exceeds 0.80 of the theoretical elongation of the unbonded length plus the jacking length at the maximum test load; and
2. The creep movement between one and ten minutes is less than 0.04 inches.

A proof tested tieback is acceptable if:

1. The pattern of movements is similar to that of adjacent performance tested tiebacks; and
2. The creep movement between one and ten minutes is less than 0.04 inches.

Performance tested or proof tested tiebacks which fail to meet the acceptance criterion Number 2 will be acceptable if the maximum load is held for 60 minutes and the creep curve plotted from the movement data indicates a creep rate of less than 0.08 inches for the last log cycle of time.

Lock-off.—After successful testing of the tiebacks, the tiebacks shall be tensioned against the structure and locked off at a load equal to 1.0 T. The lock-off force is the load on the jacks which is maintained while the anchor head or anchor nuts on the tieback are permanently set. Immediately after lock-off, a lift-off test shall be performed to demonstrate that the specified lock-off force was obtained. Adjustments in the shim thickness shall be made if required to maintain the specified lock-off force.



For strand tendons the permanent wedges shall be fully set in the anchor head while the tendon is stressed to the test load of 1.50 T and then locked off at the lock-off force by removal of the shims or other appropriate means.

The permanent strand wedges shall bear uniformly against the wedge retainer device when torque is applied to the high strength bolts.

Grouting to the level of secondary grouting to the dimensions shown on the plans shall be completed only after successful testing and lock-off has been completed. At least 24 hours after the secondary grout has set, the remaining void in the steel tube and bearing plate shall be filled with grout. Grout shall be injected at the low end and expelled at the high end until there is no evidence of entrapped air or water. A minimum grout head of 24 inches shall be maintained until the grout has set.

No payment will be made for tiebacks which do not pass the specified testing requirements.

The contract price per each pile of “**Tieback anchor [Bid Item #7A]**” shall include full compensation for furnishing all labor, materials, equipment, and incidentals and for doing all the work involved in but not limited to drilling, installation of pipe, installation of grout, temporary storage of material, disposal of drilling fluid/groundwater, drill spoils stocking piling, hauling and disposal in accordance with all laws, rules and regulations applicable to this work and testing for disposal of fluids and spoils as required for proper disposal as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

## SECTION SP-22 – CHAIN-LINK FENCE

Chain link fencing shall be installed at the locations shown on the plan and shall conform to the Section 75 “Miscellaneous Metal” and Section 80 “Fences” of the State Standard Specifications and these Special Provisions.

Chain link fencing shall be constructed in accordance with Sheet 4, Detail 4 of the Project Plans and shall conform with Caltrans Standard Specifications.

Galvanize posts and braces as required per State Standard Specification section 75-1.02B. Exterior surfaces of tubular posts and braces must have a combination coating consisting of hot-dip galvanized primer followed by a chromate conversion coating, and then a finish coat of clear, cross-linked organic coating. Thickness of the zinc coating must be at least 0.9 mil as determined from the average results of at least 2 samples and at least 0.8 mil on an individual sample. Posts shall have galvanized pressed steel caps sized to post diameter with a set screw retainer.

Chain link fence installation shall be State Standard Specification section 80-3 “Chain Link Fences” and State Standard A85 Plan series.

Mount base on steel beam shall be of galvanized steel material.

### MEASUREMENT AND PAYMENT

The contract price paid per linear foot for “**Chain-Link Fence [Bid Item #8]**” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installation of fence posts, foundation, concrete, and chain link fence, complete in place, including excavation, backfill, disposal, transportation, storage and protection, cleanup, fence post on steel beam (mount base, mount plate, bolts, anchors, washers, epoxy filler, welding, cutting/fitting necessary of steel beam and concrete lagging), and other incidental work, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

## SECTION SP-23 – GUARDRAIL

Metal post, footing and guardrail shall be removed and disposed of at the locations shown on the plans and as directed by the Engineer. The resultant void shall be backfilled as shown in the plans.

Midwest Guardrail System (MGS) including end anchor assemblies shall be constructed as shown on the plans, per State Standard Drawings and State Standard Specifications (Section 83 “Railings and Barriers”).

Steel components, hardware, bolt hole grease, and all other components necessary to construct guardrail system shall comply with the State Standard Specifications.

### MEASUREMENT AND PAYMENT

The contract price paid per linear foot for “**Guardrail [Bid Item #9]**” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in guardrail installation, posts, concrete, foundations, complete in place, including excavation, potholing at each post, backfill, disposal, transportation, storage and protection, cleanup, end anchor assemblies, and other incidental work, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

SECTION SP-24 – EROSION CONTROL BLANKETS AND SEEDING

Erosion control blankets shall be coconut fiber blanket. Contractor shall furnish and install erosion control blanket. The preparation of the area and the installation of the coconut fiber blanket shall be in accordance with Section 3, “Geotextiles, Mats, Plastic Covers and Erosion Control blankets; SS-7 of the Caltrans Best Management Practices Manual (BMP).

Hydroseeding shall be in accordance with Section 21, “Erosion Control” of the State Standard Specifications.

Prior to the installation of the coconut fiber blanket the area shall be raked to remove all rocks and clods.

Upon the completion of the site grading and retaining wall lagging replacement, all exposed dirt surfaces shall be covered in order to prevent erosion. Erosion control blankets will be installed over all the disturbed and or graded surfaces.

Upon the completion of the site grading, all exposed dirt surfaces shall be covered in order to prevent erosion. The following native grass seed mix shall be spread by hand broadcasting methods over all disturbed and or graded surfaces, with the exception of the creek bed. Incorporate the following seed uniformly at the specified rates per acre. Provide seed of the latest crop, labeled in accordance with the California Food Agricultural Code with the following ingredients per acre:

Nasella Pulchra	purple needle grass	20 lbs/acre
Melica californica	California melic	15 lbs/acre
Lupinus nanus	sky lupine	10 lbs/acre
Eschscholzia californica	California poppy	5 lbs/acre

Erosion control measures as stated on the plan, and any disturbed slopes, require installing erosion control blankets on the disturbed slopes. Erosion control blankets shall be North American Green Bionet C125BN long-term biodegradable double-net coconut blanket or approved equivalent. Before erosion control blankets are placed, the disturbed areas shall be smoothed and evenly sloped. Erosion control measures shall comply with the recommendations of the Bay Area Storm Water Management Agencies Association. The blankets shall be keyed into the top of bank as shown on the plans and specified herein.

MEASUREMENT AND PAYMENT

The contract price paid per lump sum for “**Erosion Control Blanket [Bid Item #10]**” shall include full compensation for furnishing all labor, materials, tools, equipment, performing all operations and incidentals, and for doing all the work involved in the placement of the coconut fiber erosion control blanket, hydroseeding, complete in place, including installation as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer. Erosion Control Blankets and Seeding shall be an Add Alternate item not included in the base bid.

## SECTION SP-25 – ROCK SLOPE PROTECTION

This work shall be done in accordance with Section 72-2, “Rock Slope Protection,” of the State Standard Specifications, these Special Provisions, and as directed by the Engineer. Riprap shall consist of durable rock, free from cracks and seams complying with Caltrans Standard Specifications Section 72-2.

Rock riprap must comply with the testing and corresponding specifications in section 72-2.02B “Rock” of the State Standard Specifications. The breadth and thickness of each piece of riprap shall be at least one third its length.

Rocks size shall be per the table for Rock Gradation for Method B Placement; Class “Light”.

### FILTER FABRIC

Filter fabric shall conform to the provisions of Section 96 “Geosynthetics” of the Standard Specifications. Filter fabric shall be Mirafi 600X or approved equal.

The rock riprap slope protection shall be constructed per the specifications in Section 72-2.03 “Construction” of the State Standard Specifications and per the details, lines and grades shown on the plans.

Hand place the riprap in a manner that will produce a reasonably well graded mass of rock with the minimum practicable percentage of voids. The desired distribution of the various sizes of rocks throughout the mass shall be obtained by selective loading of the material at the source. The riprap shall be placed in layers to allow for the placement of the topsoil to fill the voids. The finished riprap will be free of pockets of smaller stones and clusters of larger stones. The placed rock shall be tamped into place using a steel plate to form a regular well organized surface.

Topsoil shall be placed by equipment in the riprap voids. The topsoil placement shall not take place before the placement of the rock riprap is approved by the Engineer. Topsoil shall be placed in such a manner as to avoid displacement of the underlying rock. Spread the topsoil over the rock riprap filling the voids between the placed rocks. Work the soil into the rock layer voids by wetting, prodding with a rock bar, and/or vibratory compaction until the soil thickness has completely filled all the voids. The subsequent layers of the rock riprap shall not be placed until all the voids have been filled with the topsoil.

### MEASUREMENT AND PAYMENT

The contract price paid per cubic yard for **“Rock Revetment at toe of Landslide, ¼ ton size, filter fabric, includes excavation and placement [Bid Item #15]”** shall include but not limited to full compensation for furnishing all labor, materials, tools, equipment, performing all operations and incidentals, including grading, furnishing and placing geotextile fabric (RSP Fabric), furnishing and placing rock riprap, filling the voids with topsoil, and for doing all the work involved in the rock riprap slope, complete in place, including placement, installation, and other form of operation as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

## SECTION SP-26 – WILLOW STAKING

This section applies to the furnishing and planting of Live Willow Stakes. The task includes placement of Live Willow Stakes at the toe of slope in the landslide area and at the area adjacent to Wilkie Creek as shown on the plans.

### Materials

- 1) The contractor will obtain live willow stakes from a native plant supplier.
- 2) Live Willow Stakes shall be 2 to 3 inches in basal diameter by  $\pm$  6 feet long.

### Installation

- 1) Willow cuttings shall be planted approximately 3 feet apart on center. A triple row of willow cuttings shall be planted at the toe of the primary slope as shown on the plans.
- 2) Willow stakes shall be soaked in water a minimum of 12 hours prior to placement, but no earlier than 7 days before placement. Willow stakes can be stored for up to seven (7) days in large water tight bins (trash cans) filled with water and placed in the shade to prevent significant drying of ends.
- 3) The Contractor must give a minimum of 48 hours notice to the Engineer prior to construction that will require Live Willow Stakes. Engineer will inspect conditions of willow stakes and ensure they are not desiccated. If Engineer approves Live Willow Stake conditions, the Engineer will direct contractor on installation procedures. Failure to properly store willow stakes and cause desiccation or to install improperly may require the reconstruction of these features at no additional cost to the City.
- 4) Live Willow Stakes shall be placed so that they are in maximum contact with the underlying soil. If necessary, trim off damaged ends of cuttings and remove and replace damaged stakes at discretion of Engineer at no additional cost to the City.
- 5) Willow stakes shall have a minimum of 30 inches of contact with the underlying native material.
- 6) Willows shall be watered until the first significant rainfall of the season to insure survival.

### MEASUREMENT AND PAYMENT

The contract price paid per lump sum for “**Willow Staking [Bid Item #12]**” shall include full compensation for furnishing all labor, materials, tools, equipment, performing all operations and incidentals, and for doing all the work involved in the placement of the willow staking, complete in place, including installation as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer. Willow Staking shall be an Add Alternate item not included in the base bid.

## SECTION SP-27 – CONTROLLED LOW-STRENGTH MATERIAL (CLSM)

This work shall be done in accordance with Section 19-3.02G, “Controlled Low-Strength Material,” of the State Standard Specifications, these Special Provisions, and as directed by the Engineer.

Controlled low-strength material (CLSM) shall be at least 100 psi 28-day compressive strength.

Water must be free of oil, salts, and other impurities that adversely affect the backfill.

The CONTRACTOR is cautioned that the limiting parameters specified above are NOT a mix design. Additional cement or water reducing agent may be required to achieve workability demanded by the CONTRACTOR'S construction methods and aggregates. The CONTRACTOR is responsible for any costs associated with furnishing concrete with the required workability

### MEASUREMENT AND PAYMENT

The contract price paid per cubic yard for **“Backfill Top of select Stitch piles with CLSM [Bid Item #14]”** shall include but not limited to full compensation for furnishing all labor, materials, tools, equipment, performing all operations and incidentals, including furnishing and placement of Controlled Low-Strength Material doing all the work involved in the Controlled Low-Strength Material, complete in place, including placement, installation, and other form of operation as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer. Controlled Low-Strength Material (CLSM) shall be an Add Alternate item not included in the base bid.

## SECTION SP-28 – PROJECT APPEARANCE

Cleanup shall conform to the provisions of Section 4-1.02, "Final Cleanup," of the Standard Specifications, details on the plans, and these Project Provisions

The project area shall be left in a neat and clean condition, as approved by the Engineer, at the end of each workday. Securing open excavations, construction equipment and building materials from presenting a hazard to the public is the responsibility of the Contractor.

### MEASUREMENT AND PAYMENT

Full compensation for conforming to Project Appearance shall be considered as included in the prices paid for the various items of work and no additional compensation will be allowed.



## APPENDICES

APPENDIX A – CITY OF RICHMOND – FIRST SOURCE AGREEMENT

**CITY OF RICHMOND**  
**FIRST SOURCE AGREEMENT**

**RECITALS**

THIS FIRST SOURCE AGREEMENT is entered into on the date stated below by and between the CITY OF RICHMOND, a municipal corporation and charter city (hereinafter the "City"), and \_\_\_\_\_ (hereinafter the "Employer").

WHEREAS, the Employer has been awarded a contract, forgivable loan or subsidy by the City and/or the Richmond Community Redevelopment Agency, dated \_\_\_\_\_, 20\_\_\_\_ (hereinafter the "Contract") to perform certain work and provide certain services at \_\_\_\_\_ in Richmond, California, described as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

WHEREAS, the Employer, in addition to the Contract, agrees to enter into this First Source Agreement (hereinafter the "FSA") with the City;

NOW, THEREFORE, the parties hereto mutually agree as follows:

1. Compliance with Chapter 2.56. Employer will comply with the terms of Chapter 2.56 of the Richmond Municipal Code, Local Employment Program (hereinafter the "Ordinance"), a copy of which is attached hereto and incorporated herein by reference.

2. Liaison. Employer shall designate a liaison for issues related to the Ordinance and this FSA. The liaison shall work with designated City of Richmond staff to facilitate effective implementation of the Ordinance and this FSA (hereinafter the "Designated City Staff").

3. First Source Hiring Process for **CONSTRUCTION and NON-CONSTRUCTION JOBS** – Employer shall take the following steps regarding hiring in furtherance of the Contract.

(a) Long-Range Planning. Employer shall, prior to hiring in furtherance of the Contract, and as soon as practicable, provide to the Designated City Staff the approximate number and type of hires that it will make for employment, and the basic qualifications necessary for each projected hire.

(b) Dual Notification Process (**CONSTRUCTION ONLY**). Where there is a signatory agreement with the local union and the associated craft, Employer shall work with the local union and the City of Richmond Employment and Training Department (hereinafter the "ETD") to fill those positions. The Employer shall forward to the ETD a copy of all personnel requests made to the trade unions, specifying the residency of personnel requested (this process is hereinafter referred to as the "dual notification process" and a description of it is attached hereto along with the Request for Craft form for use by the Employer). In the dual notification process, the Employer shall utilize the "name call," "rehires," "transfers," or "sponsorship" options in maximizing the participation of Richmond, California residents.

(c) Notification of job opportunities. Prior to hiring in furtherance of the Contract, Employer shall notify the Designated City Staff, by email or fax, of available job openings and provide a description of job responsibilities and qualifications, including expectations, salary, work schedule, duration of employment, required standard of appearance, and any special requirements, e.g., language skills, driver's license, etc. Job qualifications shall be limited to skills directly related to performance of job duties.

(d) Filling of job opportunities. Prior to announcing or advertising in any form and by any means (except for compliance with internal posting procedures) the availability of an employment position created by the vacancy of an existing position or a new employment position, the Employer shall utilize the dual notification process to notify the pertinent union, if appropriate, and ETD in writing of such position, including a general description of the position and Employer's minimum requirements for qualified applicants, and shall request any pertinent union and ETD to refer qualified applicants for such position to Employer's trade union and/or personnel representative, as appropriate. The Employer shall refrain from any general announcement or advertisement of the availability of such position for a period of ten (10) business days after notification to the ETD. This ten-day period shall be known as the "Advance Notice Period."

(e) Job Site Applications. In the event that any persons seek employment with the Employer at the job site, the Employer shall have the person complete a Job Site Application consisting of name, address, telephone number, social security number and trade. The Employer will then submit this information to the ETD.

(f) Transfer and Promotion. Nothing contained herein shall prevent the Employer from filling job vacancies or newly created positions without compliance with the foregoing procedures by transfer or promotion from its existing staff.

4. Monthly Reports. Employer shall, on a monthly basis, furnish certified payroll sheets to ETD. Failure to provide the City with this information shall result in delay of progress payments for that portion which is deemed not in compliance with the provisions of this FSA.

5. Quarterly Reports. Employer shall prepare quarterly reports detailing the number of hires for employment in furtherance of the Contract during the quarter and stating what percentage of such hires were residents of Richmond, California. The Designated City Staff shall assist Employer by preparing forms to be completed for this purpose. Reports shall be filed with the ETD within thirty (30) days after the completion of each quarter. Reports may include a description of any difficulties the Employer is having with obtaining qualified referrals through the Designated City Staff.

6. Non-compliance Procedure. In the event the City believes the Employer may not be in compliance with the requirements of this FSA, the following procedure will be followed:

(a) The Community and Economic Development Executive Director (hereinafter the "Executive Director") or designee shall cause to be delivered to the Employer a written "Notice of Non-Compliance" (hereinafter the "Notice"). The Notice shall specify the matters which constitute the non-compliance; the specific action required to correct the non-compliance; and the time period during which such correction shall occur. In no event shall this time period be more than thirty (30) days after receipt of the Notice by the Employer. If the Notice is mailed, it will be deemed received five (5) days after the date of mailing.

(b) If the Employer disagrees with the Notice, they shall have the burden of proving compliance with the provisions of the Ordinance and shall submit any evidence and argument to the Executive Director or designee to establish compliance no more than thirty (30) days after receipt of the Notice by the Employer.

(c) In the event the Executive Director or designee subsequently agrees that compliance has occurred, the Executive Director or designee shall cause to be delivered promptly to the Employer a written "Notice of Correction of Non-Compliance," specifying the original noncompliance which has been corrected.

(d) In the event the Executive Director or designee does not agree that compliance has occurred, the Executive Director or designee shall promptly notify the Employer by a written "Notice of Failure to Correct Non-Compliance" ("hereinafter the "Notice of Failure to Correct"), describing the facts constituting the non-compliance.

(e) After the issuance of the Notice of Failure to Correct, the Employer shall have the right to request a hearing before the City Manager or designee (hereinafter "Request for Hearing"), who shall make the final determination. The Request for a Hearing must be made within ten (10) working days after receipt of the Notice of Failure to Correct. If the Notice of Failure to Correct is mailed, it will be deemed received five (5) days after the date of mailing. The hearing shall be held no sooner than twenty (20) and no later than thirty (30) days after receipt by the City of the Request for Hearing, unless otherwise agreed to by the parties. At the hearing, the Employer will be allowed to present any evidence and argument it believes proves compliance. The City Manager or designee shall issue their final determination no later than ten (10) business days after the hearing. The Employer must exhaust this administrative remedy prior to commencing legal action.

(f) In the event no Request for Hearing is timely made, the determination of failure to correct non-compliance shall be deemed to be final.

(g) Should the Employer fail to comply with the Notice of Non-Compliance as specified above, and a final determination of non-compliance is made, the City may exercise any of its powers as specified in §2.56.080 of the Ordinance.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

EMPLOYER

CITY OF RICHMOND

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Approved as to form:

\_\_\_\_\_  
City Attorney

APPENDIX B – CITY OF RICHMOND – INSURANCE REQUIREMENTS –  
CONSTRUCTION PROJECTS

**City of Richmond - Insurance Requirements –  
CONSTRUCTION PROJECTS**

In all instances where a CONTRACTOR or its representatives will be conducting business and/or providing services, the City requires the following MINIMUM insurance requirements and limits.

CONTRACTOR shall procure and maintain for the duration of the contract, agreement, or other order for work, services or supplies, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the CONTRACTOR, its agents, representatives, employees or subcontractors. **Maintenance of proper insurance coverage is a material element of the contract. Failure to maintain or renew coverage or to provide evidence of renewal may be treated by the City as a material breach of contract.**

CONTRACTOR agrees that in the event of loss due to any of the perils for which it has agreed to provide Commercial General Liability insurance, CONTRACTOR shall look solely to its insurance for recovery. CONTRACTOR hereby grants to CITY, on behalf of any insurer providing Commercial General Liability insurance to either CONTRACTOR or CITY with respect to the services of CONSULTANT herein, a waiver of any right to subrogation which any such insurer of said CONTRACTOR may acquire against the CITY by virtue of the payment of any loss under such insurance.

Original, signed certificates and original, separate policy endorsements, naming the City as an additional insured for general liability, as well as a waiver of subrogation for Workers' Compensation insurance, shall be received and approved by the City **before any work may begin**. However, failure to do so shall not operate as a waiver of these insurance requirements.

City reserves the right to modify or require additional coverages for specific risk exposures depending on scope of CONTRACTORS work.

Minimum coverage is detailed below. The policy limits of coverage shall be made available to the full limits of the policy. The minimum limits stated herein shall not serve to reduce the policy limits of coverage of CONTRACTOR.

- Minimum Scope of Insurance** – the following forms shall be provided and coverage shall be at least as broad as the following:
1. Insurance Services Office Commercial General Liability coverage (ISO Occurrence Form CG 0001) including coverage for bodily and personal injury, property damage, and products and completed operations.
  2. Insurance Services Office Automobile Liability coverage (ISO Form CA 0001, Code 1, Any Auto)
  3. Original and Separate Additional Insured Endorsements for General Liability (ISO Form CG 20 10 11/85 or its equivalent) with primary and non-contributory language.
  4. Workers' Compensation Insurance as required by the State of California including Employer's Liability coverage.
  5. Original and Separate Waiver of Subrogation for Workers' Compensation and Builder's Risk/ Course of Construction Insurance.
  6. Builder's Risk/Course of Construction insurance covering all risks of loss less policy exclusions when the City of Richmond has a financial interest in the property.
  7. Contractor's Pollution Liability

Required Coverage	Minimum Limits
Workers' Compensation and Employers' Liability	Statutory limits as required by the State of California including \$1 million Employers' Liability per accident, per employee for bodily injury or disease. If CONTRACTOR is self-insured, provide a certificate of Permission to Self-Insure, signed by the California Department of Industrial Relations and Self-Insurance. If contractor is a sole proprietor (has no employees) than contractor must sign "Contractor Release of Liability" found at: <a href="http://www.ci.richmond.ca.us/index.aspx?nid=61">http://www.ci.richmond.ca.us/index.aspx?nid=61</a> .

## City of Richmond - Insurance Requirements – CONSTRUCTION PROJECTS

General Liability <i>(primary and excess limits combined)</i>	PROJECT COST	REQUIRED LIMIT
	\$0 - \$5 million	\$2 million p/o
	\$5 million - \$10 million	\$5 million p/o
	Over \$10 million	\$10 million p/o
	<p>Includes coverage for bodily injury, personal injury, property damage and products and completed operations. The policy shall not exclude coverage for XCU perils (explosion, collapse, or damage to underground property).</p> <p>If the policy includes a general aggregate, either the general aggregate shall apply separately to this project, service or location or the <b>minimum required aggregate limit shall be twice the per occurrence limit.</b></p> <p>Policy shall be endorsed to name the City of Richmond as an additional insured per the conditions detailed below.</p>	
Automobile Liability	<b>\$1,000,000</b> per occurrence for bodily injury and property damage.	
<p>Builders' Risk/Course of Construction – Covers property under construction, repair or renovation as well as equipment and materials to be installed.</p> <p><b><i>(Only required for Construction Projects involving property and equipment installation.)</i></b></p>	<p>Coverage shall include all risks of direct physical loss, excluding earthquake, for an amount equal to the full completed value of the covered structure or replacement value of alterations or additions, including soft costs and business interruption.</p> <p>If the project does not involve new or major reconstruction, an Installation Floater may be acceptable. For such projects, a property installation floater shall be obtained that provides for the improvement, remodel, modification, alteration, conversion or adjustment to existing buildings, structures, processes, machinery and equipment. The Property Installation Floater shall provide property damage coverage for any building, structure, machinery or equipment damaged, impaired, broken or destroyed during the performance of the Work, including during transit, installation and testing at the City of Richmond's site.</p> <p>The City of Richmond shall be named as loss payee as its interest may appear. The insurer shall waive all rights of subrogation against City.</p>	
<p>Contractor's Pollution Liability</p> <p>Protects against: <i>unexpected/unintended release of pollution resulting from contractors covered operations such as:</i></p> <p>HVAC, paving, carpentry, pipeline &amp; tank installation, drillers, remediation contractors, maintenance, mechanical, demolition, excavation, grading, street/road construction, residential &amp; commercial builders.</p>	Same limits as General Liability.	
<b>Required Policy Conditions</b>		
A. M. Best Rating	A:VII or Better. If the A.M. Best Rating falls below the required rating, CONTRACTOR must replace coverage immediately and provide notice to City.	
Additional Insured Endorsement	<p>Applicable to General Liability Coverage.</p> <p>The City of Richmond, its officers, officials, employees, agents and volunteers are to be named as additional insureds for all liability arising out of the operations by or on behalf of the named insured, including but not limited to bodily injury, deaths and property damage or destruction arising in any respect directly or indirectly in the performance of this contract.</p> <p><b><i>ISO form CG 20 10 (11/85) or its equivalent is required. The endorsement <u>must not</u> exclude products and completed operations coverage. If it does, then CG 20 37 (10/01) is also required.</i></b></p> <p><i>SAMPLE Endorsements can be found at</i> <a href="http://www.ci.richmond.ca.us/index.aspx?nid=61">http://www.ci.richmond.ca.us/index.aspx?nid=61</a></p>	



<b>City of Richmond - Insurance Requirements – CONSTRUCTION PROJECTS</b>
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Primary and Noncontributory	The contractor's insurance coverage must be primary coverage as it pertains to the City, its officers, officials, employees, agents and volunteers. Any insurance or self insurance maintained by the City is wholly separate from the insurance of the contractor and in no way relieves the contractor from its responsibility to provide insurance.
Waiver of Subrogation Endorsement Form	Contractor's insurer will provide a Waiver of Subrogation in favor of the City for Workers Compensation and Builder's Risk/ Course of Construction coverage during the life of this contract.  SAMPLE Endorsements can be found at <a href="http://www.ci.richmond.ca.us/index.aspx?nid=61">http://www.ci.richmond.ca.us/index.aspx?nid=61</a>
Deductibles and Self-Insured Retentions	Any deductible or self-insured retention must be declared to and approved by the City. At the option of the City either the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the City or the CONTRACTOR shall procure a financial guarantee in an amount equal to the deductible or self-insured retention guaranteeing payment of losses and related investigations, claims administration and defense expenses.  Contractor is responsible for satisfaction of the deductible and/or self-insured retention for each loss.
Loss Payable Endorsement <b>(only required when Builder's Risk and/or Course of Construction Insurance is required.)</b>	Applicable to Builder's Risk/Course of Construction naming the City of Richmond as Loss Payee.
<b>SURETY BONDS</b>	The Contractor shall provide: <ol style="list-style-type: none"> <li>1. A Bid bond</li> <li>2. A Performance Bond</li> <li>3. A Payment Bond</li> </ol>

#### **Umbrella/Excess Liability Policies**

If an Umbrella or Excess Liability Policy is used to meet the liability limits, coverage shall be as broad as specified for underlying coverages and cover those insured in the underlying policies.

#### **Claims-Made Policies**

If any insurance policy is written on a claims-made form: 1) the retroactive date must be shown, and must be before the date of the contract or the beginning of contract work. 2) Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work. 3) If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, the Contractor must purchase an extended period coverage for a minimum of five (5) years after completion of contract work.

#### **Subcontractors**

CONTRACTOR shall include all subcontractors as insured under its policies or shall furnish to the City for review and approval, separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

CONTRACTOR agrees to defend and indemnify the City of Richmond for any damage resulting to it from failure of either CONTRACTOR or any subcontractor to take out or maintain the required insurance policies. The fact that insurance is obtained by CONTRACTOR, and/or CONTRACTOR's subcontractors, will not be deemed to release or diminish the liability of CONTRACTOR, including, without limitation, liability under the indemnity provisions of this contract. Damages recoverable by CITY from CONTRACTOR or any third party will not be limited by the amount of the required insurance coverage.

<p style="text-align: center;"><b>City of Richmond - Insurance Requirements – CONSTRUCTION PROJECTS</b></p>
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**Verification of Coverage**

All original certificates and endorsements shall be received and approved by the City ***before work may begin***. The City of Richmond reserves the right to require complete, certified copies of all required insurance policies including endorsements affecting the coverage at any time.

**Original insurance certificates and required policy endorsements shall be mailed, or delivered to the Designated Project Manager for the City of Richmond.**

Insurance certificates and endorsements may be faxed to the Designated Project Manager. However, Contractor must mail the original certificates and endorsements to Designated Project Manager once faxed.

**Continuous Coverage**

CONTRACTOR shall maintain the required insurance for the life of the contract. Should the CONTRACTOR cease to have insurance as required during this time, all work by the CONTRACTOR pursuant to this agreement shall cease until insurance acceptable to the City is provided. In the event that CONTRACTOR fails to comply with the City's insurance requirements, the City may take such action as it deems necessary to protect the City's interests. Such action may include but is not limited to termination of the contract, withholding of payments, or other actions as the City deems appropriate.

If services or the scope of work extend beyond the expiration dates of the required insurance policies initially approved by the City, CONTRACTOR must provide updated certificates and endorsements indicating that the required coverage, terms and conditions are still in place. **Renewal certificates and updated endorsements shall be mailed to the Designated Project Manager.**

**Cancellation**

CONTRACTOR shall ensure that coverage shall not be cancelled, reduced or otherwise materially changed except after thirty (30) days' prior written notice has been given to the City.

**Reporting Requirements**

Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the City, its officers, officials, employees or volunteers.

**Consistent with Public Policy**

The insuring provisions, insofar as they may be judged to be against public policy shall be void and unenforceable only to the minimum extent necessary so that the remaining terms and provisions herein may be consistent with public policy and thus enforceable.

# City of Richmond - Insurance Requirements for Non Profit Organizations (not for construction projects): Services up to \$100,000

<b>ACORD™ CERTIFICATE OF LIABILITY INSURANCE</b>		DATE (MM/DD/YY)
PRODUCER	<b>THIS CERTIFICATE IS ISSUED AS MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.</b>	
	<b>INSURERS AFFORDING COVERAGE</b>	
INSURED	INSURER A: _____ INSURER B: _____ INSURER C: _____ INSURER D: _____ INSURER E: _____	

**COVERAGES**

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INS R LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS												
	<b>GENERAL LIABILITY</b> <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR _____ GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$ _____ FIRE DAMAGE (Any one fire) \$ _____ MED EXPENSE (Any one person) \$ _____ PERSONAL & ADV INJURY \$ _____ GENERAL AGGREGATE \$ _____ PRODUCTS-COMP/OP AGG \$ _____												
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS _____				COMBINED SINGLE LIMIT (Ea accident) \$ _____ BODILY INJURY (Per person) \$ _____ BODILY INJURY (Per accident) \$ _____ PROPERTY DAMAGE (Per accident) \$ _____ AUTO ONLY-EA ACCIDENT \$ _____ OTHER THAN EA ACC \$ _____ AUTO ONLY: AGG \$ _____												
	<b>GARAGE LIABILITY</b> <input type="checkbox"/> ANY AUTO				AUTO ONLY-EA ACCIDENT \$ _____ OTHER THAN EA ACC \$ _____ AUTO ONLY: AGG \$ _____												
	<b>EXCESS LIABILITY</b> <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE _____ <input type="checkbox"/> DEDUCTIBLE RETENTION \$ _____				EACH OCCURRENCE \$ _____ AGGREGATE \$ _____												
	<b>WORKERS' COMPENSATION AND EMPLOYERS LIABILITY</b>				<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"></td> <td style="width: 20%; text-align: center;">WC STATU-TORY LIMITS</td> <td style="width: 20%; text-align: center;">OTHER</td> </tr> <tr> <td>E.L. EACH ACCIDENT</td> <td style="text-align: center;">\$</td> <td></td> </tr> <tr> <td>E.L. DISEASE - EA EMPLOYEE</td> <td style="text-align: center;">\$</td> <td></td> </tr> <tr> <td>E.L. DISEASE - POLICY LIMIT</td> <td style="text-align: center;">\$</td> <td></td> </tr> </table>		WC STATU-TORY LIMITS	OTHER	E.L. EACH ACCIDENT	\$		E.L. DISEASE - EA EMPLOYEE	\$		E.L. DISEASE - POLICY LIMIT	\$	
	WC STATU-TORY LIMITS	OTHER															
E.L. EACH ACCIDENT	\$																
E.L. DISEASE - EA EMPLOYEE	\$																
E.L. DISEASE - POLICY LIMIT	\$																
	<b>OTHER</b>																

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL/PROVISIONS

---

CERTIFICATE HOLDER	ADDITIONAL INSURED; INSURER LETTER: _____	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL _____ DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE
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**City of Richmond - Insurance Requirements for Non Profit  
Organizations (not for construction projects):  
Services up to \$100,000**

**IMPORTANT**

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

**DISCLAIMER**

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

**City of Richmond - Insurance Requirements for Non Profit  
Organizations (not for construction projects):  
Services up to \$100,000**

**SAMPLE Endorsements  
Preferred form**

Reproduction of Insurance Services Office, Inc. Form

**POLICY NUMBER:** **COMMERCIAL GENERAL LIABILITY**

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**ADDITIONAL INSURED—OWNERS, LESSEES OR  
CONTRACTORS (FORM B)**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART.

SCHEDULE

Name of Person or Organization:

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" for that insured by or for you.

**CG 20 10 11 85 Copyright, Insurance Services Office, Inc., 1982**

**City of Richmond - Insurance Requirements for Non Profit  
Organizations (not for construction projects):  
Services up to \$100,000**

**SAMPLE Endorsements**  
**Acceptable form when combined with CG 20 37 10 01**  
**Reproduction of Insurance Services Office, Inc. Form**

POLICY NUMBER: COMMERCIAL GENERAL LIABILITY  
CG 20 10 10 01

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

AMENDMENT OF LIMITS OF INSURANCE (DESIGNATED PROJECT OR PREMISES)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Designation of Project Or Premises:

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

- A. Section II – WHO IS AN INSURED is amended to include as an insured the person or organization shown in the Schedule but only with respect to liability arising out of your ongoing operations performed for the insured.
- B. With respect to the insurance afforded to these additional insureds, the following exclusion is added:

1. Exclusions

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- (1) All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the site of the covered operations has been completed; or
- (2) That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than contractor or subcontractor engaged in performing operations for a principal as part of the same project.

CG 20 10 10 01

ISO Properties, Inc., 2000

Page 1 of 1

**City of Richmond - Insurance Requirements for Non Profit  
Organizations (not for construction projects):  
Services up to \$100,000**

**SAMPLE Endorsements  
Acceptable form when combined with CG 20 10 10 01  
Reproduction of Insurance Services Office, Inc. Form**

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY  
CG 20 37 10 01

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR  
CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization:

Location And Description of Completed Operations:

Additional Premium:

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

*Section II – WHO IS AN INSURED is amended to include as an insured the person or organization shown in the Schedule but only with respect to liability arising out of “your work” at the location designated and described in the Schedule of this endorsement performed for that insured and included in the “products-completed operations hazard.”*

CG 20 37 10 01

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Page 1 of 1

**City of Richmond - Insurance Requirements for Non Profit  
Organizations (not for construction projects):  
Services up to \$100,000**

**SAMPLE Endorsement  
Waiver of Subrogation – Workers' Compensation**

Reproduction of State Compensation  
Insurance Fund Form

**STATE  
COMPENSATION  
INSURANCE  
FUND**

P.O. BOX 807, SAN FRANCISCO, CALIFORNIA 94101

**CERTIFICATE OF WORKERS' COMPENSATION INSURANCE**

POLICY NUMBER:  
CERTIFICATE EXPIRES:

[  
|  
  
|  
]

This is to certify that we have issued a valid Workers' Compensation insurance policy in a form approved by the California Insurance Commissioner to the employer named below for the policy period indicated.

This policy is not subject to cancellation by the Fund except upon 30 days' written notice to the employer.

We will give you 30 days' advance notice should this policy be canceled prior to its normal expiration.

This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

PRESIDENT

**(Note: following text is typewritten addition to printed form)**

THE STATE COMPENSATION INSURANCE FUND WAIVES ANY RIGHT OF SUBROGATION ENDORSEMENT #2570. AGAINST (ENTITY) \_\_\_\_\_, ITS OFFICIALS, EMPLOYEES AND VOLUNTEERS BY REASON OF ANY PAYMENT UNDER THIS POLICY.

ENDORSEMENT #0015 ENTITLED ADDITIONAL INSURED EMPLOYER EFFECTIVE IS ATTACHED TO AND FORMS A PART OF THIS POLICY. ADDITIONAL INSURED EMPLOYER: \_\_\_\_\_

ENDORSEMENT #2065 ENTITLED 30 DAY CANCELLATION NOTICE EFFECTIVE IS ATTACHED TO AND FORMS A PART OF THIS POLICY.

LIABILITY OF THE STATE COMPENSATION INSURANCE FUND IS LIMITED TO \_\_\_\_\_ FOR ALL DAMAGES FOR ONE OR MORE CLAIMS RESULTING FROM EACH ACCIDENT OF OCCURRENCE ARISING OUT OF ANY ONE EVENT.

EMPLOYER



**City of Richmond - Insurance Requirements for Non Profit  
Organizations (not for construction projects):  
Services up to \$100,000**

**SAMPLE Endorsement  
Waiver of Subrogation – Liability  
Reproduction of Insurance Services Office, Inc. Form**

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY  
CG 24 04 10 93

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY**

**WAIVER OF TRANSFER OF RIGHTS OF RECOVERY  
AGAINST OTHERS TO US**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
OCP LIABILITY COVERAGE PART

**SCHEDULE**

**Name of Person or Organization:**

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

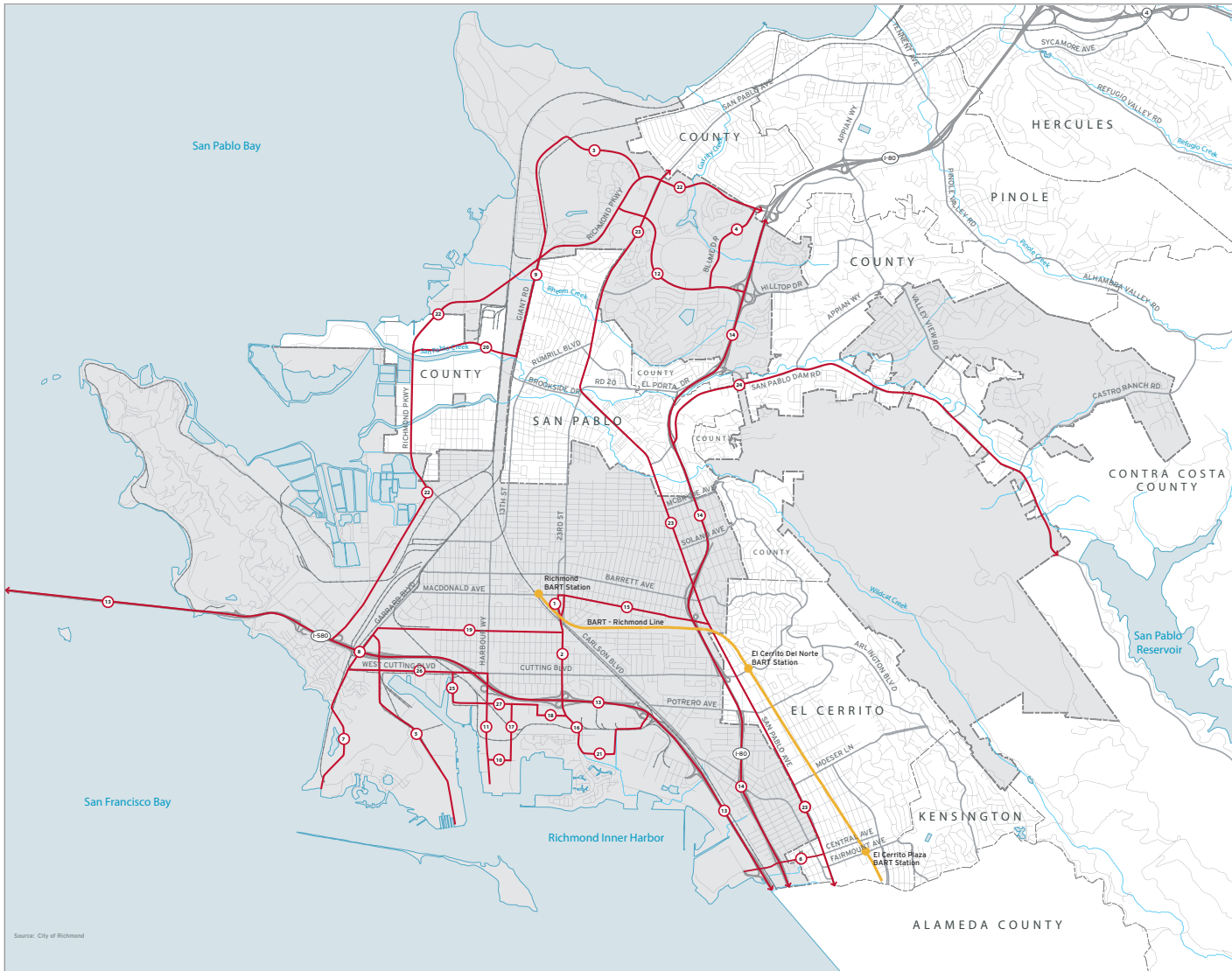
The TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US Condition (Section IV - COMMERCIAL GENERAL LIABILITY CONDITIONS) is amended by the addition of the following:

We waive any right of recovery we may have against the person or organization shown I the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard." This waiver applies only to the person or organization shown in the Schedule above.

**CG 24 04 10 93**

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APPENDIX C – CITY OF RICHMOND – TRUCK ROUTE



Map 4.4  
Existing Truck Routes

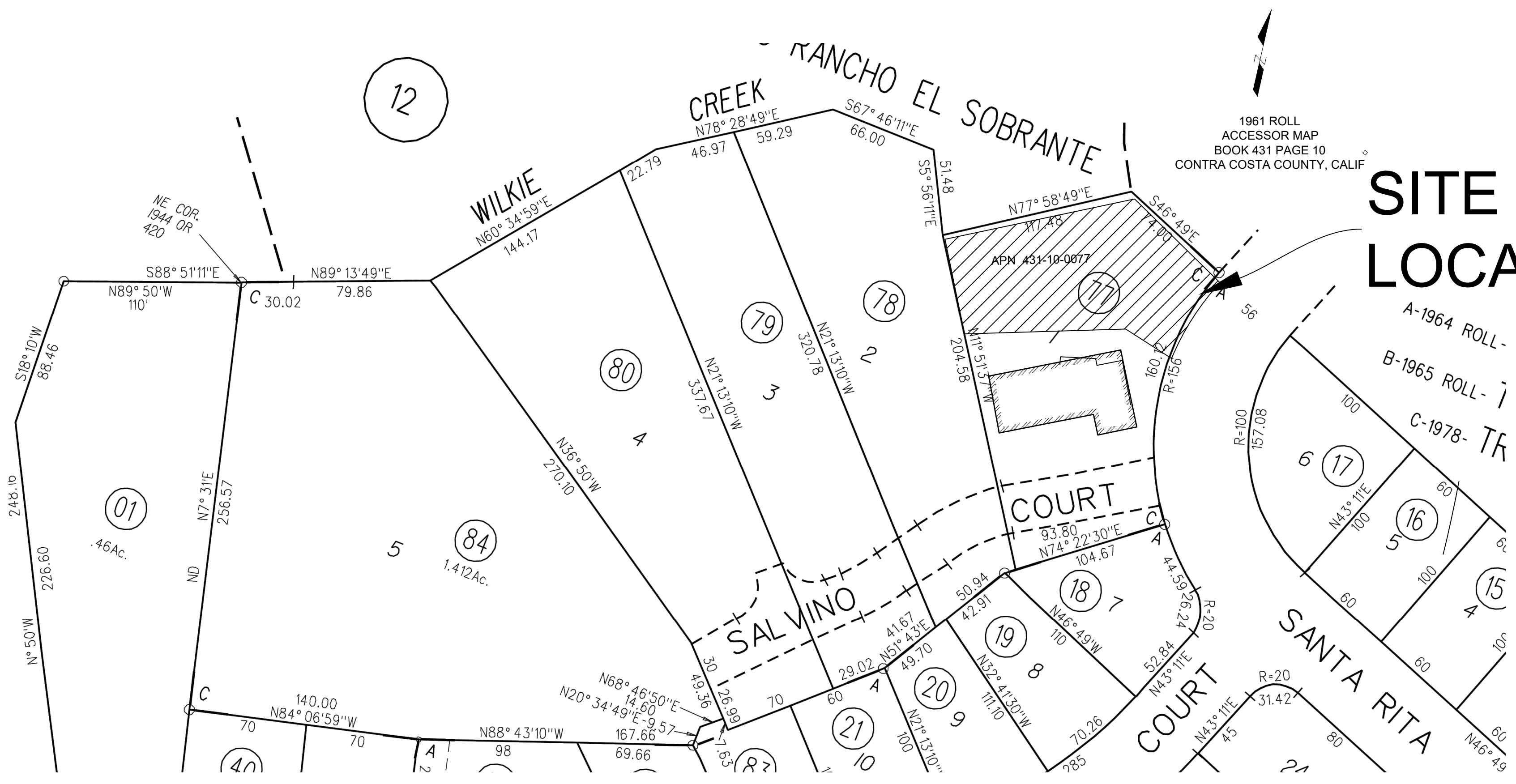
- |    |                 |    |                   |
|----|-----------------|----|-------------------|
| 1  | 22nd St.        | 16 | Marina Bay Pkwy.  |
| 2  | 23rd St.        | 17 | Marina Way So.    |
| 3  | Atlas Rd.       | 18 | Meeker Ave.       |
| 4  | Blume Dr.       | 19 | Ohio Ave.         |
| 5  | Canal Blvd.     | 20 | Parr Blvd.        |
| 6  | Central Ave.    | 21 | Regatta Blvd.     |
| 7  | Dornan Dr.      | 22 | Richmond Pkwy.    |
| 8  | Garrard Blvd.   | 23 | San Pablo Ave.    |
| 9  | Giant Hwy.      | 24 | San Pablo Dam Rd. |
| 10 | Hall Ave.       | 25 | So. 4th St.       |
| 11 | Harbour Wy. So. | 26 | W. Cutting Blvd.  |
| 12 | Hilltop Dr.     | 27 | Wright Ave.       |
| 13 | I-580           |    |                   |
| 14 | I-80            |    |                   |
| 15 | Macdonald Ave.  |    |                   |

Note: This map is provided for informational purposes only. It may be periodically updated by the the City of Richmond Engineering Services Department.



Source: City of Richmond

APPENDIX D - PLANS



LOCATION PLAN

# EMERGENCY STITCH/SOLDIER PILE WALL

SANTA RITA RD AT 2929 SALVINO CT  
RICHMOND, CA 94803

## SITE LOCATION



SITE PLAN

**PROJECT OWNER AND ADDRESS**

CITY OF RICHMOND  
SANTA RITA ROAD,  
RICHMOND, CA 94803

**PROJECT DESCRIPTION**

THE PROJECT CONSISTS OF INSTALLING A TEMPORARY EMERGENCY SOLDIER PILE RETAINING WALL TO ISOLATE THE LANDSLIDE FROM SANTA RITA ROAD. THE WALL IS TO BE LOCATED IN THE RIGHT OF WAY OF SANTA RITA ROAD. WORK ON THE PROPERTY OF 2929 SALVINO CT IS LIMITED TO EROSION CONTROL, PLANTING AND FENCE REPLACEMENT. FUTURE WORK TO STABILIZE LANDSLIDE AND CREEK EROSION IS SHOWN AS AN ADDITIVE ALTERNATE AND MAY BE PERFORMED UNDER SEPARATE CONTRACT.

**GOVERNING CODES**

1. THE WORK SHALL COMPLY WITH THE CURRENTLY ADOPTED SECTIONS OF THE 2022 CALIFORNIA BUILDING CODE (CBC)
2. THE WORK SHALL COMPLY WITH THE CURRENTLY ADOPTED AND APPLICABLE CITY OF RICHMOND AND CONTRA COSTA COUNTY REQUIREMENTS.
3. CURRENT CALTRANS STANDARD SPECIFICATIONS

**ABBREVIATIONS**

- BMP BEST MANAGEMENT PRACTICE  
 COR CITY OF RICHMOND  
 CIDH CAST-IN-DRILLED HOLE  
 EG EXISTING GRADE  
 PTF PRESSURE TREATED FIR  
 H&V HORIZONTAL AND VERTICAL

INDEX OF SHEETS	
1	COVER PAGE
2	NOTES AND SPECIFICATION
3	PILE INSTALLATION PLAN
4	SECTIONS
5	SECTIONS
6	SECTIONS
7	PROFILE AND TABLE
8	STRUCTURAL DETAILS
9	TIEBACK DETAILS
10	EROSION CONTROL AND GUARDRAIL DETAILS

REVIEW FOR CONFORMANCE WITH CITY OF RICHMOND STANDARDS AND SPECIFICATIONS. APPROVAL FOR CONSTRUCTION IS SUBJECT TO THE INFORMATION SHOWN HEREIN. CITY OF RICHMOND AND THE UNDERSIGNED ARE NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY EXIST ON THESE PLANS.

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 ROBERT ARMIJO, DEPUTY PUBLIC WORKS DIRECTOR  
 CITY ENGINEER, CITY OF RICHMOND

SANTA RITA ROAD AT  
2929 SALVINO CT  
RICHMOND, CALIFORNIA



CITY OF RICHMOND APPROVAL	
CITY ENGINEER	DATE
RCE NO.	EXP DATE

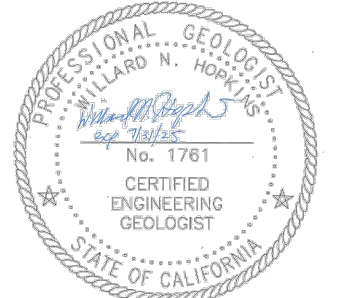
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2		9/22/2023		RESPOND TO COMMENT	
3		10/12/2023		100% SUBMISSION	

Design:	CN
Drawn:	KT
Checked:	WH
App'd:	CN

EMERGENCY STITCH/ SOLDIER PILE WALL  
COVER PAGE  
RICHMOND, CALIFORNIA

Project	2200159
Scale:	AS NOTED
Date:	10/12/2023
FIGURE:	1 OF 10

100% SUBMITTAL  
DATE: 10/12/2023



LAST SAVED: 10/13/2023 11:00:00 AM PLOT DATE: 10/13/2023 PLOT STYLE: ... IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY

GENERAL NOTES

1. DESIGN INTENT: THESE PLANS AND SPECIFICATIONS REPRESENT THE DESIGN INTENT OF QUESTA ENGINEERING CORPORATION (THE ENGINEER), AS APPROVED BY THE OWNER, CITY OF RICHMOND (COR), CALIFORNIA. THE CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS SHOWN ON THESE PLANS AND SPECIFICATIONS AND SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS AND ASSOCIATED RISK AND EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A COPY OF THE APPROVED PLANS AND SPECIFICATIONS AND ANY ADDENDA AT THE JOB SITE AT ALL TIMES. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY COR OF ANY UNFORESEEN CIRCUMSTANCES OR CONDITIONS THAT WOULD ALTER THESE PLANS AND SPECIFICATIONS FOR APPROVAL OF MODIFICATIONS TO THE INTENDED DESIGN.

2. A COMPONENT IN ONE CONTRACT PART APPLIES AS IF APPEARING IN EACH PLANS AND SPECIFICATIONS. THE PLANS AND SPECIFICATION PARTS ARE COMPLEMENTARY AND DESCRIBE AND PROVIDE FOR A COMPLETE WORK. IF A DISCREPANCY IS FOUND OR CONFUSION ARISES, REQUEST CORRECTION OR CLARIFICATION IN WRITING. ANY DEVIATION FROM THE APPROVED PLANS AND SPECIFICATIONS SHALL BE APPROVED BY THE ENGINEER AND ALL CHANGES SHALL BE BY WRITTEN PERMISSION ONLY.

3. ALL WORKMANSHIP, MATERIALS, AND CONSTRUCTION SHALL CONFORM TO THE CONTRACT SPECIFICATION AND THESE PLANS. CONTRACTOR IS RESPONSIBLE TO HAVE AVAILABLE A CURRENT SET OF LISTED STANDARD SPECIFICATIONS AND STANDARD PLANS.

4. BASE MAP: THE PROPOSED IMPROVEMENTS SHOWN ON THESE DRAWINGS ARE SUPERIMPOSED ON AN AERIAL PHOTO BASE MAP. THIS BASE MAP IS NOT COMPILED FROM A GROUND SURVEY, COR AND ENGINEER SHALL NOT BE HELD LIABLE FOR CHANGES, INACCURACIES, OMISSIONS OR OTHER ERRORS ON THESE DOCUMENTS. THE COMPOSITE BASE MAP IS PROVIDED AS AN AID ONLY AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THESE DOCUMENTS AND INCORPORATING/INTEGRATING ALL CONSTRUCTION AS REQUIRED TO ACCOMMODATE THE SAME. NONE OF THE INCLUDED DRAWINGS DEPICT A BOUNDARY SURVEY, AND THE BASE MAP IS ON AN ASSUMED DATUM.

5. DISCREPANCIES: CONTRACTOR SHALL VERIFY LOCATIONS, LEVELS, DISTANCES, AND FEATURES THAT MAY AFFECT THE WORK. SHOULD EXISTING CONDITIONS DIFFER FROM THOSE SHOWN OR INDICATED IN THESE PLANS, STANDARD SPECIFICATIONS, AND TECHNICAL SPECIFICATIONS, OR IF IT APPEARS THAT THESE PLANS, STANDARD SPECIFICATIONS, AND TECHNICAL SPECIFICATIONS DO NOT ADEQUATELY DETAIL THE WORK TO BE DONE, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONTINUING WITH ANY RELATED WORK. NO ALLOWANCE WILL BE MADE IN THE CONTRACTOR'S BEHALF FOR ANY EXTRA EXPENSE RESULTING FROM FAILURE OR NEGLECT IN DETERMINING THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE.

6. UTILITIES: CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY COMPANIES IN THE PROJECT AREA A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR MUST INVESTIGATE AND VERIFY THE LOCATION OF ANY EXISTING UTILITIES WITHIN THE PROJECT AREA. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, LOCATE, AND PROTECT ALL UNDERGROUND AND OVERHEAD UTILITIES. ANY UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE CONSIDERED TENTATIVE AND APPROXIMATIONS AND THEREFORE, NO WARRANTY EXPRESSED OR IMPLIED IS MADE AS TO THE COMPLETENESS OR CORRECTNESS OF THEIR LOCATION. THE UTILITY COMPANIES ARE THOUGHT TO BE MEMBERS OF THE UNDERGROUND SERVICE ALERT (U.S.A.) ON-CALL PROGRAM. THE CONTRACTOR SHALL NOTIFY U.S.A. 72-HOURS IN ADVANCE OF PERFORMING EXCAVATION WORK AT 811 FROM 7:00 AM TO 5:00 PM, MONDAY THROUGH FRIDAY. EXISTING PUBLIC UTILITIES SHALL BE KEPT IN SERVICE AT ALL TIMES. UTILITIES THAT INTERFERE WITH THE WORK TO BE PERFORMED SHALL BE PROTECTED AS REQUIRED BY COR AND ALL OTHER AFFECTED ENTITIES. DAMAGE TO UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE CITY OF RICHMOND AND TO THE SATISFACTION OF THE ENGINEER AND OWNER.

7. RESOURCE PROTECTION: THE CONTRACTOR IS ADVISED OF THE PRESENCE OF SENSITIVE RESOURCES LOCATED NEAR PROJECT WORK AREAS. ALL CONTRACTOR ACTIVITIES, INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION ACTIVITIES, VEHICLE MAINTENANCE, AND MATERIALS AND EQUIPMENT STORAGE AND STAGING, MUST BE STRICTLY CONFINED TO THE SANTA RITA ROAD. THE LIMITS OF WORK WILL BE CAREFULLY LOCATED IN THE FIELD BY THE CONTRACTOR AND ENGINEER OF RECORD, AND ALL WORK LIMIT AREAS WILL BE PROTECTED BY STRAW WATTLES, CONSTRUCTION BARRIER FENCING, OR SILT FENCING.

8. BIOLOGICAL AND CULTURAL RESOURCE MONITOR: THE CITY OF RICHMOND WILL PROVIDE A QUALIFIED BIOLOGICAL/ARCHEOLOGICAL MONITOR IF NECESSARY.

9. CONTRACTOR RESPONSIBILITY: BY ENTERING INTO THIS CONTRACT WITH THE CITY OF RICHMOND, THE CONTRACTOR AGREES TO HAVING EXAMINED THE SITE, COMPARING THE SITE CONDITIONS WITH THE DRAWINGS AND SPECIFICATIONS AND HAS CAREFULLY EXAMINED ALL OF THE CONTRACT DOCUMENTS AND IS SATISFIED AS TO THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. NO

ALLOWANCE SHALL BE MADE SUBSEQUENTLY ON BEHALF OF THE CONTRACTOR DUE TO FAILURE TO BE ACQUAINTED WITH THE CONDITIONS OF THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH ALL CONSTRUCTION OPERATIONS. CONTRACTOR SHALL PROTECT ALL EXISTING ON-SITE AND OFF-SITE IMPROVEMENTS AGAINST DAMAGE RESULTING FROM OPERATIONS. RESPONSIBILITY EXTENDS TO THE CONTRACTOR'S WORKERS, SUBCONTRACTORS AND OTHERS PROVIDING SERVICES. CONTRACTOR SHALL REPAIR AND/OR REPLACE DAMAGE AT THEIR OWN EXPENSE AND TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF RICHMOND. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY OF RICHMOND AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FROM LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CITY OF RICHMOND OR THE ENGINEER. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

10. JOB SITE CONDITIONS: CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, TRAFFIC CONTROL, ACCESS TO AND FROM ADJOINING DRIVEWAYS AND STREETS, AND ANY LANE CLOSURES. TRASH GENERATED BY THIS WORK (CONSTRUCTION DEBRIS, PAPER, BOTTLES, CIGARETTES, ETC) SHALL BE REMOVED ON A DAILY BASIS. CONTRACTOR SHALL CONTROL DUST AT ALL TIMES WITH WATER.

11. SAFETY AND TRAFFIC CONTROL: ALL WORK SHALL BE IN COMPLIANCE WITH APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS AS SET FORTH BY THE FEDERAL DEPARTMENT OF LABOR AND/OR THE STATE OF CALIFORNIA AND COR. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALTRANS MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OF WORK ZONES, CONTRACT DOCUMENTS, THESE PLANS, AND AS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE APPROPRIATELY CONSTRUCTED WITH REFLECTIVE MATERIAL ON A BACKING OF METAL OR FABRIC (NO WOOD OR PLASTIC ALLOWED) AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION TO PROVIDE PROPER VISIBILITY, PER SECTION 12 OF THE CALTRANS STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL MAINTAIN REASONABLE ACCESS TO ALL ROADWAYS DURING CONSTRUCTION

12. CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT TEMPORARY BARRICADES TO PROVIDE FOR THE SAFETY OF THE STAFF AND THE PUBLIC TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF RICHMOND.

13. A SET OF SIGNED PLANS AND A SET OF CONTRACT DOCUMENTS WILL BE KEPT AT ALL TIMES AT THE JOB SITE ON WHICH ALL CHANGES OR VARIATIONS IN THE WORK, INCLUDING ALL EXISTING UTILITIES, ARE TO BE RECORDED AND/OR CORRECTED DAILY AND SUBMITTED TO THE ENGINEER WHEN THE WORK TO BE DONE IS COMPLETED.

14. ALL MATERIALS SHALL BE NEW AND SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.

15. THE CONTRACTOR SHALL INVESTIGATE THE SITE AND BE AWARE OF ANY LIMITED OVERHEAD CLEARANCES.

16. TRENCH EXCAVATIONS OVER FIVE FEET (5') DEEP REQUIRE AN EXCAVATION PERMIT FROM THE STATE DEPARTMENT OF INDUSTRIAL SAFETY.

17. NOTICE TO CONTRACTORS: THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY LINES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT SHOWN ON THESE PLANS.

18. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING STRUCTURES AND UTILITIES DURING CONSTRUCTION.

19. EXISTING VEGETATION SHALL BE REMOVED ONLY AS DIRECTED BY THE ENGINEER AND SHOWN ON THE PLANS.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAWFUL OFF-SITE DISPOSAL OF ALL BITUMINOUS PAVEMENT, CONCRETE AND REINFORCEMENT, AND SPOILS NOT NEEDED FOR BACKFILL AS REQUIRED BY THE ENGINEER AND CITY OF RICHMOND.

21. CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING STORM WATER BMP's AND MAINTAINING THEM DURING CONSTRUCTION AS REQUIRED.

22. THE CONTRACTOR SHALL ADHERE TO ALL TERMS OF THE PERMITS FOR THIS PROJECT THAT APPLY TO CONSTRUCTION WITH SENSITIVE HABITATS.

23. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS. MONUMENTS AND SURVEY MARKERS

DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AND A CORNER RECORD FILED WITH THE COUNTY SURVEYOR'S OFFICE AT THE CONTRACTOR'S EXPENSE.

24. THE CONTRACTOR SHALL KEEP A REDLINED SET OF ALL CHANGES, EXCEPTIONS, OR MODIFICATIONS MADE TO THE PLANS & SHALL FURNISH A PDF SET OF MARK UPS TO THE ENGINEER UPON COMPLETION OF WORK FOR THE PREPARATION OF RECORD DRAWINGS TO ALL AGENCIES INVOLVED.

25. PROVIDE EROSION CONTROL AND HYDROSEED ACCORDING TO THE PLAN.

26. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITH WRITTEN AUTHORIZATION FROM THE CITY ENGINEER.

27. CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROLS AND SHALL SUBMIT A TRAFFIC CONTROL PLAN.

28. ALL EXISTING UTILITY AND PRIVATE IMPROVEMENT THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE CITY ENGINEER, AT CONTRACTOR'S SOLE EXPENSE.

29. THE CONTRACTORS AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROERTY AND THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT JUST DURING NORMAL WORKING HOURS.

STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL BEAMS SHALL BE 50-KSI STEEL.

2. FABRICATION AND ERECTION SHALL COMPLY WITH SECTION 49-2.03 "STRUCTURAL SHAPE STEEL PILING"/ THE STEEL SOLIDER piles SHALL BE ASTM A572/A572M,ASTM A709/A709M, OR ASTM A992/A992M. THE LENGTH AND SIZE OF THE STEEL SOLIDER PILES SHALL BE AS SHOWN ON PLANS.

3. WELDING SHALL CONFORM TO THE LATEST REVISIONS OF AWS D1.1 AND BE PERFORMED BY A CERTIFIED WELDER.

4. SHOP DRAWINGS, IF REQUIRED, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR APPROVAL AT LEAST 14 DAYS PRIOR TO INSTALLATION.

5. I-BEAM COATING-PROTECTIVE COATING FOR STEEL. PROTECTIVE COATING FOR EXPOSED STEEL SHALL BE 2 COATS OF BLACK COAL TAR EPOXY, KOOPERS BITUMASTIC NO. 3000-M, AMERICOAT 78 HB, OR EQUIVALENT APPROVED BY THE ENGINEER.

CONCRETE PLACEMENT AND STRENGTH

1. CONCRETE STRENGTH SHALL BE A MINIMUM OF 4,000 PSI.

2. PUMPED CONCRETE MAY BE USED AT THE CONTRACTOR'S OPTION. THE MAXIMUM AGGREGATE SIZE SHALL BE ¾" AND SLUMP RANGE FROM 4 TO 6 INCHES.

3. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL SO AS TO CAUSE SEGREGATION OF AGGREGATES. USE OF HOPPER, CHUTES, OR TRUNKS OF VARYING LENGTHS SO THAT UNCONFINED FALL OF CONCRETE DOES NOT EXCEED 4 FEET. MECHANICAL VIBRATION FOR PROPER CONSOLIDATION IS REQUIRED.

4. CONCRETE MUST COMPLY WITH THE TESTING AND CORRESPONDING SPECIFICATION IN SECTION 90 "CONCRETE" OF THE Caltrans STANDARD SPECIFICATIONS. THE CONCRETE MUST HAVE A QUALITY OF WORKABILITY SUITABLE FOR UNIFORM AND PROPER PLACEMENT, AND WHEN CURED MUST HAVE THE REQUIRED STRENGTH AND DURABILITY.

DRILLED PIER NOTES

1. DRILLED PIERS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS. CONTRACTOR TO STAKE PIER LOCATIONS IN THE FIELD AND CONFIRM WITH ENGINEER AND COR.

A. IF REQUIRED, HOLES SHALL BE CASED TO PREVENT CAVING DURING DRILLING. CASING SHALL BE RETRACTED AS CONCRETE IS PLACED.  
B. PIERS SHALL BE DRILLED STRAIGHT AND PLUM (WITHIN 1% OF VERTICAL) AND SHOULD BE CLEANED OF LOOSE SOIL AND ROCK FRAGMENTS.

2. CONCRETE PLACEMENT SHOULD START AS SOON AS POSSIBLE AFTER DRILLING AND CLEANOUT IS COMPLETE. CONCRETE STRENGTH STRENGTH SHALL BE A MINIMUM OF 4,000 PSI AT 28 DAYS.

3. IF WATER IS PRESENT IN THE HOLES, TREMIE PIPE SHALL BE MAINTAINED AT LEAST 5 FEET BELOW THE SURFACE OF THE CONCRETE DURING CASTING OF THE PIER.

SPECIAL INSPECTION NOTES

1. INSPECTION OF THE VERTICAL PIER HOLE DRILLING ARE REQUIRED TO BE PERFORMED BY THE SOIL ENGINEERING FIRM.

2. SCOPE OF INSPECTION INCLUDES:

- A. INSPECT PIER HOLE DEPTH
- B. LOG THE CUTTINGS OF AT LEAST 2 OF THE PIER HOLES
- C. SAMPLE AND TEST CONCRETE DURING CONSTRUCTION AND PERFORM LABORATORY STRENGTH TESTING PER CALTRANS SECTION 90

SAFETY NOTES

1. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) A MINIMUM OF 2 WORKING DAYS PRIOR TO ANY DIGGING. CALL 1-800-642-2444  
2. THE CONTRACTOR SHALL COMPLY WITH ALL STATE, COUNTY, AND CITY LAWS AND ORDINANCES, AND REGULATIONS OF THE DEPARTMENT OF INDUSTRIAL RELATIONS, O.S.H.A., AND INDUSTRIAL ACCIDENT COMMISSION RELATING TO THE SAFETY AND CHARACTER OF WORK EQUIPMENT AND LABOR PERSONNEL.

3. CONTRACTOR SHALL DOCUMENT AND CONDUCT REGULAR SAFETY MEETINGS WITH ITS EMPLOYEES.

4. CONTRACTOR EMPLOYEES ARE TO WEAR ALL REQUIRED PERSONAL PROTECTIVE EQUIPMENT.

5. THE CONTRACTOR SHALL ISOLATE THE WORK AREA FROM THE PUBLIC AND SHALL PROVIDE PROTECTIVE FENCING AND/OR BARRIERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO KEEP THE WORK SITE SAFE AT ALL TIMES NOT JUST LIMITED TO THE WORK HOURS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL PUBLIC RIGHTS-OF-WAY AND OFF-SITE AREAS FROM ALL DIRT, MUD, DUST, AND DEBRIS AT ALL TIMES.

7. THE CONTRACTOR SHALL PREVENT THE FORMATION OF ANY AIRBORNE NUISANCE BY WATERING DOWN AND/OR TREATING THE SITE OF THE WORK IN SUCH A MANNER THAT WILL CONFINE DUST PARTICLES TO THE IMMEDIATE WORK AREA. IN ADDITION, THE NOISE LEVEL OF OPERATION SHALL BE KEPT TO A MINIMUM AS PER THE CITY OF RICHMOND.

8. WORK SHALL BE SUSPENDED, IF IN THE OPINION OF THE CITY, THE DUST CONTROL MEASURES ARE NOT ADEQUATE.

9. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE FOR THE DURATION OF THE PROJECT.

TIMBER LAGGING NOTES

THE WOOD LAGGING MUST COMPLY WITH CALTRANS SECTION 57 "WOOD AND PLASTIC LUMBER STRUCTURES." WOOD LAGGING SHALL BE DOUGLAS FIR NO. 1 OR BETTER. THE LAGGING SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWP SPECIFICATIONS P-5 USING ACZA WITH A NET RETENTION OF AT LEAST 0.6 POUNDS PER CUBIC FOOT. LAGGING LENGTH TO BE APPROXIMATELY 5' OR AS NEEDED TO FIT PILE SPACING

LAGGING SIZE SHALL BE AS FOLLOWS:  
0 - 5' BELOW TOP OF WALL: 3X  
5' - 14' BELOW TOP OF WALL: 4X  
14' - 18' BELOW TOP OF WALL: 6X

LIMITATION NOTES

1. OUR SERVICES CONSIST OF PROFESSIONAL DESIGNS, OPINIONS AND RECOMMENDATIONS MADE IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING GEOLOGY, GEOTECHNICAL, AND CIVIL ENGINEERING PRINCIPLES AND PRACTICES. NO WARRANTY, EXPRESSED OR IMPLIED, OR MERCHANTABILITY OF FITNESS IS MADE OR INTENDED IN CONNECTION WITH OUR WORK FOR CONSULTING OR OTHER SERVICES, OR BY THE FURNISHING OF ORAL OR WRITTEN REPORTS OR FINDINGS.

2. ANY ENGINEERING DESIGN NOTES AND SPECIFICATIONS PRESENTED IN THIS PLAN SET ARE CONTINGENT UPON OUR FIRM BEING CONSULTED WHEN ANY QUESTIONS ARISE WITH REGARD TO THE NOTES AND SPECIFICATIONS CONTAINED HEREIN, AND TO PROVIDE TESTING AND INSPECTION SERVICES FOR CONSTRUCTION OPERATIONS. UNANTICIPATED SOIL AND GEOLOGIC CONDITIONS ARE COMMONLY ENCOUNTERED DURING CONSTRUCTION, WHICH CANNOT BE FULLY DETERMINED FROM EXISTING ESPOSURES OR BY LIMITED SUBSURFACE INVESTIGATION. SUCH CONDITIONS MAY REQUIRE ADDITIONAL EXPENDITURES DURING CONSTRUCTION TO A OBTAIN PROPERLY CONSTRUCTED PROJECT.



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SANTA RITA ROAD AT

2929 SALVINO CT  
RICHMOND, CALIFORNIA

**QUESTA**  
ENGINEERING CORP.  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807

Civil  
Environmental  
& Water Resources

(510) 236-6114  
FAX (510) 236-2423  
questa@questaec.com



CITY OF RICHMOND APPROVAL

CITY ENGINEER \_\_\_\_\_  
DATE \_\_\_\_\_  
RCE NO. \_\_\_\_\_ EXP DATE \_\_\_\_\_

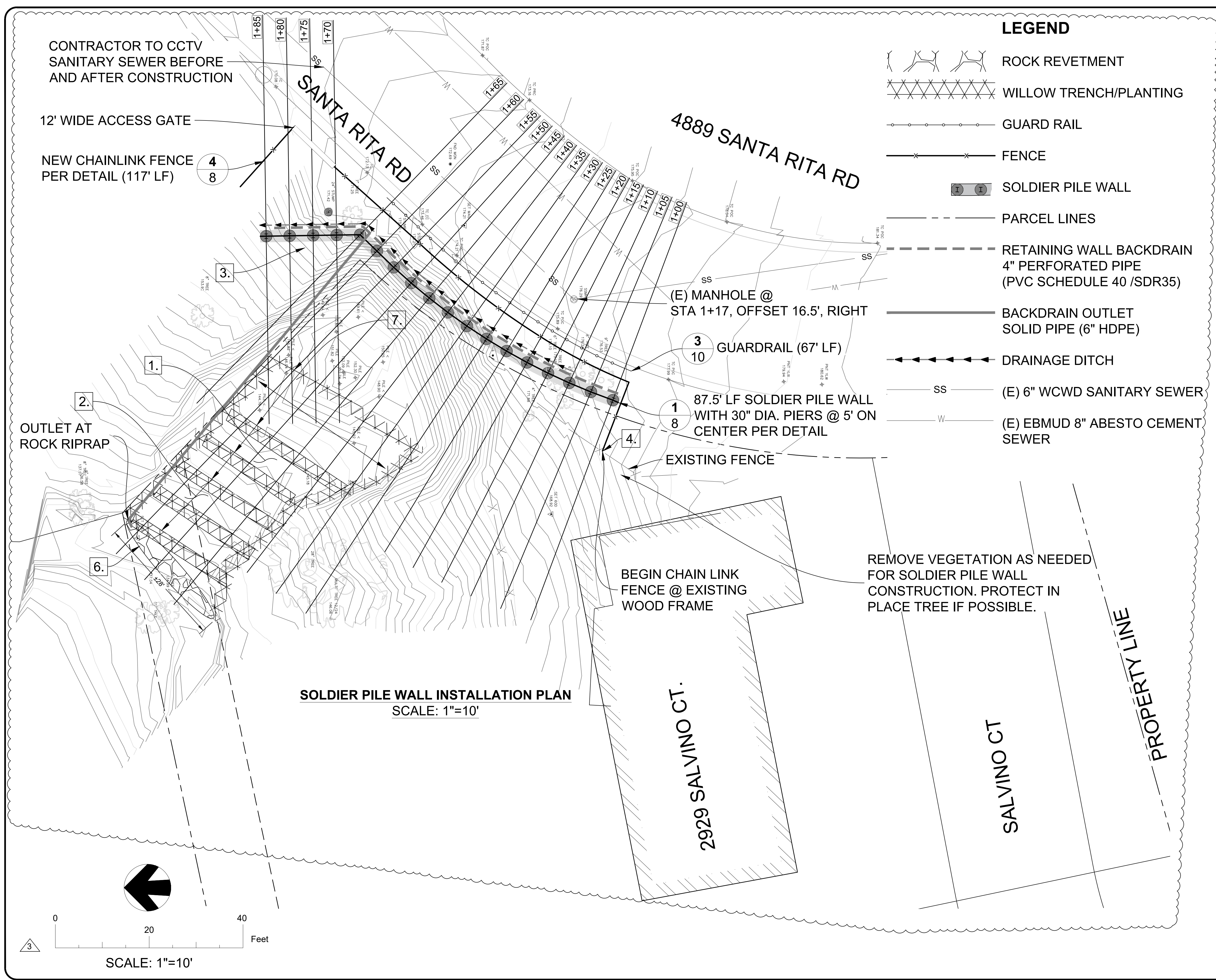
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3		10/12/2023		100% SUBMISSION	

Design: CN  
Drawn: KT  
Checked: WH  
Appr'd: CN

**EMERGENCY STITCH/ SOLDIER PILE WALL  
NOTES AND SPECIFICATION**

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**RICHMOND, CALIFORNIA**

Size D Project 2200159  
Scale: AS NOTED  
Date: 10/12/2023  
FIGURE: 2 of 10



**LEGEND**

- ROCK REVETMENT
- WILLOW TRENCH/PLANTING
- GUARD RAIL
- FENCE
- SOLDIER PILE WALL
- PARCEL LINES
- RETAINING WALL BACKDRAIN  
4" PERFORATED PIPE (PVC SCHEDULE 40 /SDR35)
- BACKDRAIN OUTLET  
SOLID PIPE (6" HDPE)
- DRAINAGE DITCH
- (E) 6" WCWD SANITARY SEWER
- (E) EBMUD 8" ABESTO CEMENT SEWER

**PLAN NOTES**

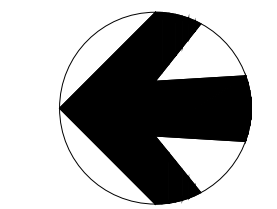
1. VEGETATION PILE TO REMAIN COVER WITH TARP.
2. EXISTING TARPS AND SAND BAGS TO BE SALVAGED AND REUSED BY CONTRACTOR.
3. CONTRACTOR TO REMOVE TREE STUMP AND ROOTS COMPLETELY FOR SOLDIER PILE WALL INSTALLATION.
4. JOIN (N) CHAIN LINK FENCE TO (E) WOOD FENCE AT (N) POST, TYP. AT TWO LOCATIONS
5. INSTALL BLANKET AND HYDROSEEDING AT DISTURBED SOIL AREA PER SPECIFICATIONS AND SPECIAL PROVISIONS. INSTALL TARP AND SAND BAGS ON THE SIDE WALLS OF THE SCOUR PER SPECIFICATIONS AND SPECIAL PROVISIONS.
6. ADDITIVE ALTERNATE ROCK BANK 5/5
7. ADDITIVE ALTERNATE WILLOW BAFFLE 1/10

**GENERAL NOTES**

1. CONTRACTOR TO FIELD VERIFY DIMENSIONS, ELEVATIONS, AND LOCATION OF ALL EXISTING STRUCTURES, IMPROVEMENT AND UNDERGROUND UTILITY LINES. EXISTING UNDERGROUND AND AERIAL UTILITY ARE NOT SHOWN ON THE PLANS. IT IS CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING UTILITY PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR SHALL REPLACE AND REPAIR ANY DAMAGE TO THE EXISTING UTILITY LINES AT THE SOLE EXPENSE OF THE CONTRACTOR.
3. CONTRACTOR SHALL HIRE A CALIFORNIA LICENSED LAND SURVEYOR TO SURVEY MONUMENTS PRIOR TO START OF THE CONSTRUCTION AND END OF CONSTRUCTION. IN ANY EVENT IF THE MONUMENT BECOMES DAMAGED OR DISPLACED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR THE SURVEY MONUMENT PER CITY STANDARD DETAIL AT THE SOLE EXPENSE OF THE CONTRACTOR.

**SOLDIER PILE WALL INSTALLATION PLAN**  
SCALE: 1"=10'

SCALE: 1"=10'



SANTA RITA ROAD AT  
2929 SALVINO CT  
RICHMOND, CALIFORNIA

**QUESTA**  
ENGINEERING CORP.  
Civil Environmental & Water Resources  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807  
(510) 236-6114  
FAX (510) 236-2423  
questa@questaeac.com



CITY OF RICHMOND APPROVAL

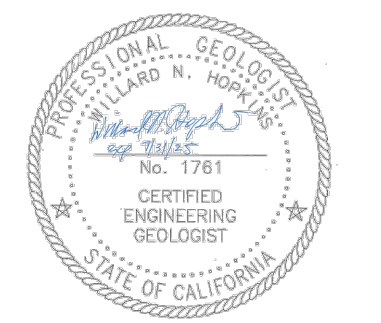
CITY ENGINEER	DATE
RCE NO.	EXP DATE

Sht.	Rev.	Date:	By:	Description:	App'd:
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2		9/22/2023		RESPOND TO COMMENT	
3		10/12/2023		100% SUBMISSION	

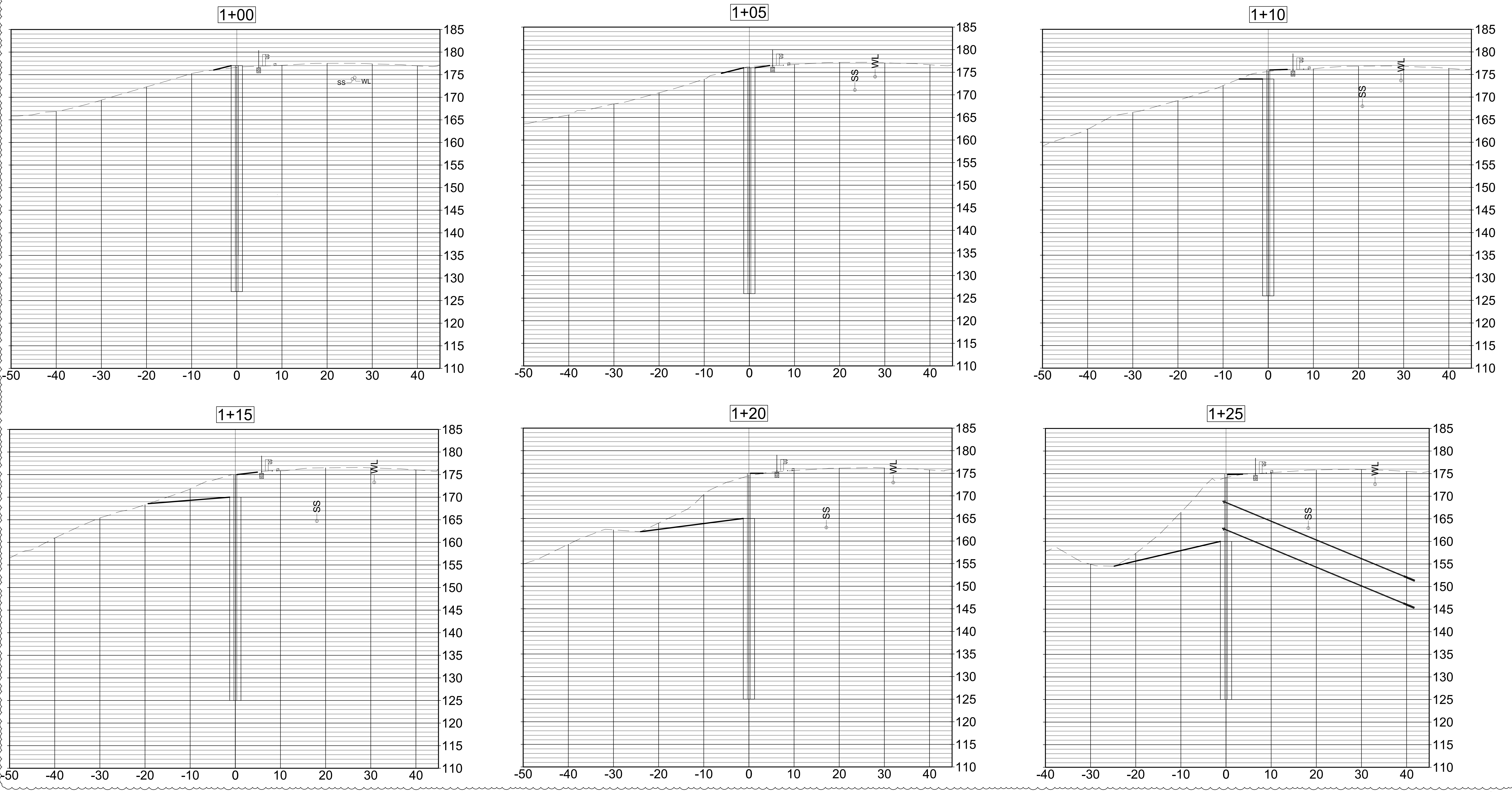
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**EMERGENCY STITCH/ SOLDIER PILE WALL PILE INSTALLATION PLAN**  
RICHMOND, CALIFORNIA

Size D	Project 2200159
Scale:	AS NOTED
Date:	10/12/2023
FIGURE:	3 OF 10



P:\2022\2200159\_SALVINO-CT-C0929\1-RICHMOND\CAD\DWG\SHEETS\2200159\_PLANNING  
 LAST SAVED: 10/13/2023 PLOT DATE: 3/27/2023 PLOT STYLE:



**LEGEND**

- PILE
- TIEBACK
- CHAINLINK FENCE
- GUARDRAIL
- CURB
- PROPOSED GRADE
- EXISTING GRADE
- 6" WCWD SANITARY SEWER SS
- EBMUD 8" ABESTSTO CEMENT WATERLINE WL

H&V SCALE: 1"=10'

0 20 40 Feet

SANTA RITA ROAD AT  
2929 SALVINO CT  
RICHMOND, CALIFORNIA

**QUESTA**  
ENGINEERING CORP.  
Civil Environmental & Water Resources  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807  
(510) 236-6114  
FAX (510) 236-2423  
questa@questaec.com



CITY OF RICHMOND APPROVAL

CITY ENGINEER \_\_\_\_\_  
DATE \_\_\_\_\_  
RCE NO. \_\_\_\_\_ EXP DATE \_\_\_\_\_

Sht.	Rev.	Date	By	Description	App'd
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2		9/22/2023		RESPOND TO COMMENT	
3		10/12/2023		100% SUBMISSION	

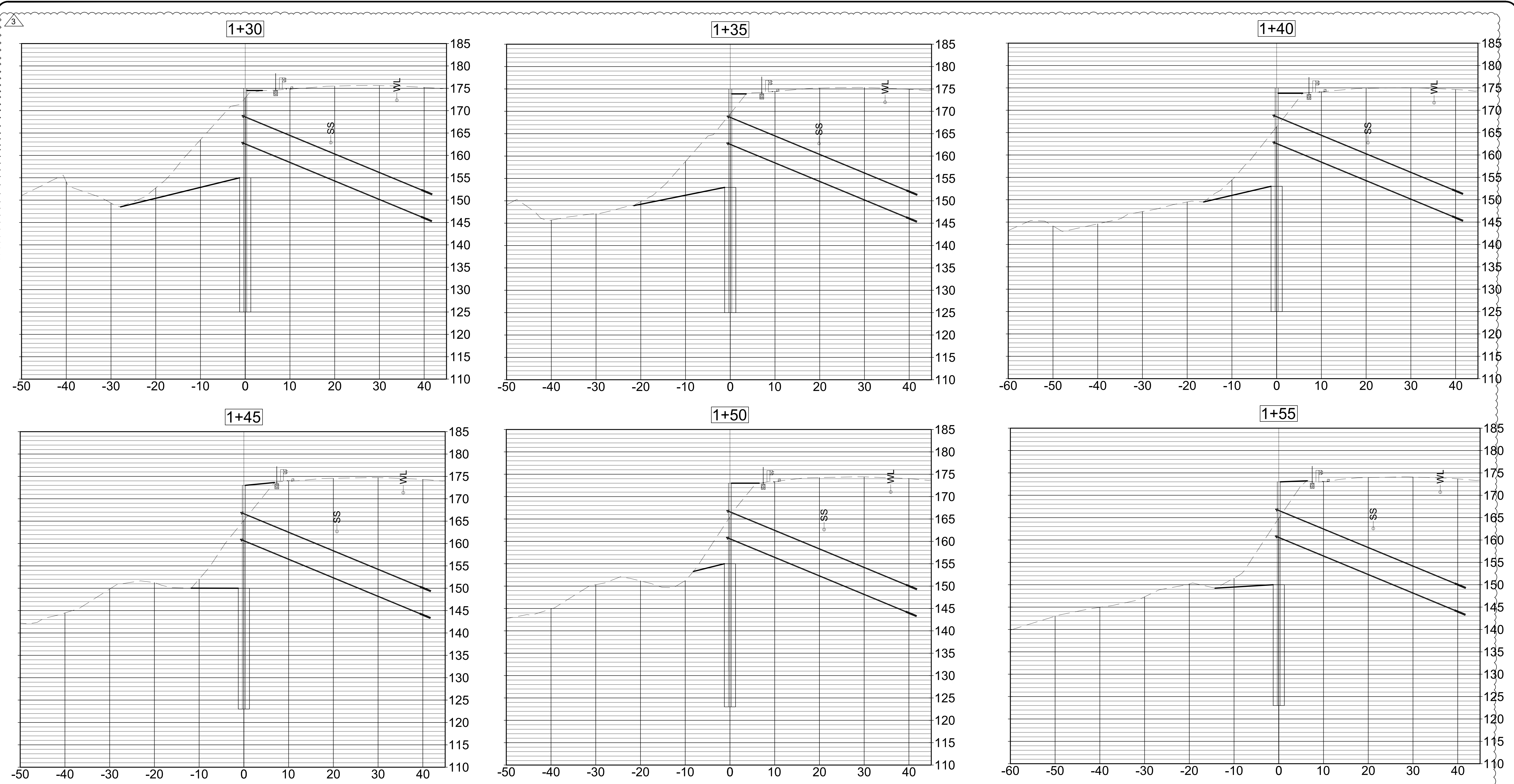
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Drawn: KT  
Checked: WH  
App'd: CN

**EMERGENCY STITCH/ SOLDIER PILE WALL SECTIONS**  
RICHMOND, CALIFORNIA

Project: 2200159  
Scale: AS NOTED  
Date: 10/12/2023  
FIGURE: 4 OF 10

P:\2022\2200159\_SALVINO-CT\_(0929)\_RICHMOND, CALIF. SHEETS\2200159\_PLANDWG PLOT DATE: 3/27/2023 PLOT STYLE: -----





**LEGEND**

- PILE
- TIEBACK
- CHAINLINK FENCE
- GUARDRAIL
- CURB
- PROPOSED GRADE
- EXISTING GRADE
- 6" WCWD SANITARY SEWER (SS)
- EBMUD 8" ABESTSTO CEMENT WATERLINE (WL)

H&V SCALE: 1"=10'



SANTA RITA ROAD AT  
2929 SALVINO CT  
RICHMOND, CALIFORNIA

**QUESTA ENGINEERING CORP.**  
Civil Environmental & Water Resources  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807  
(510) 236-6114  
FAX (510) 236-2423  
QUESTA@QUESTAEC.COM

CITY OF RICHMOND APPROVAL  
CITY ENGINEER \_\_\_\_\_  
DATE \_\_\_\_\_  
RCE NO. \_\_\_\_\_ EXP DATE \_\_\_\_\_

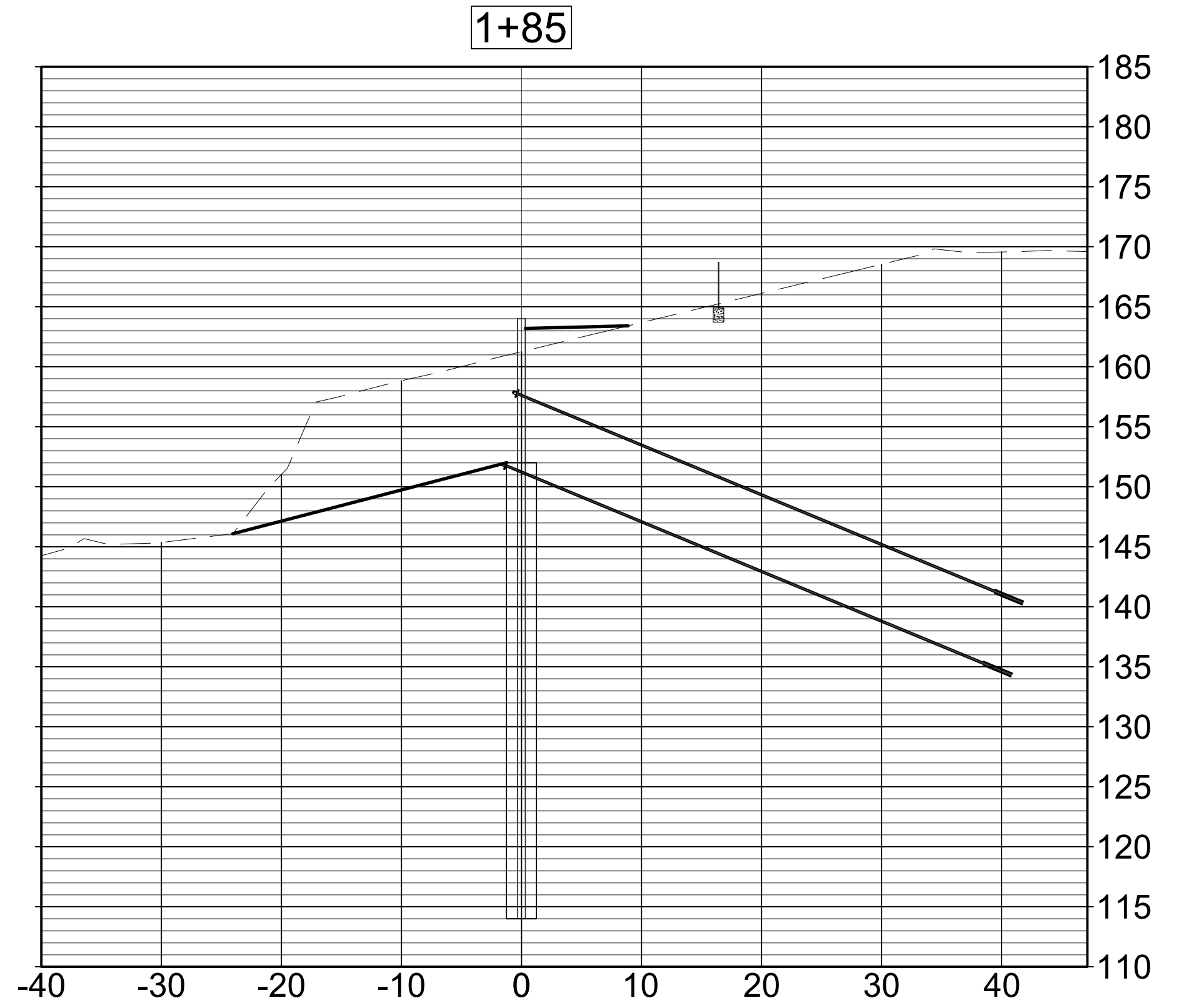
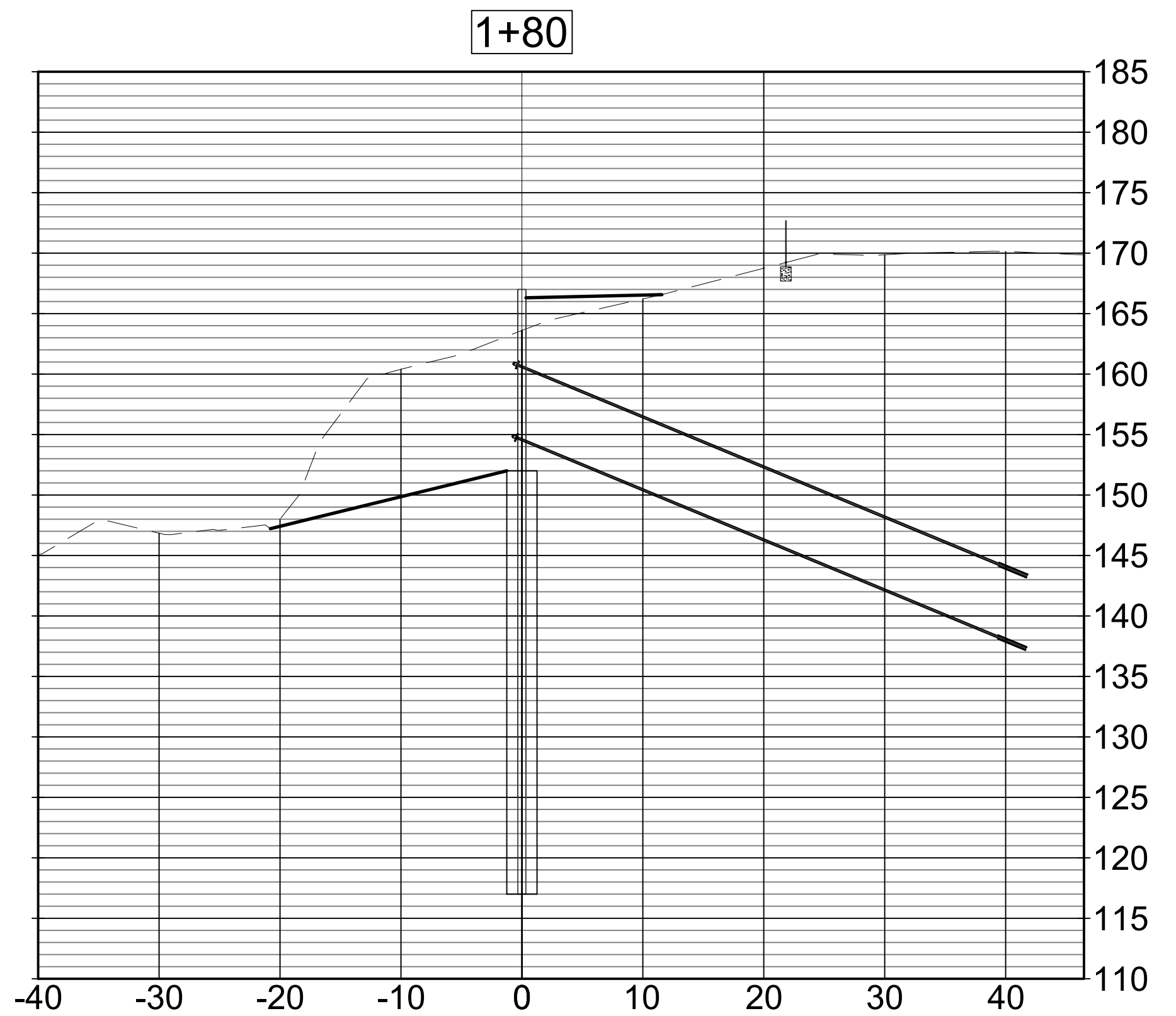
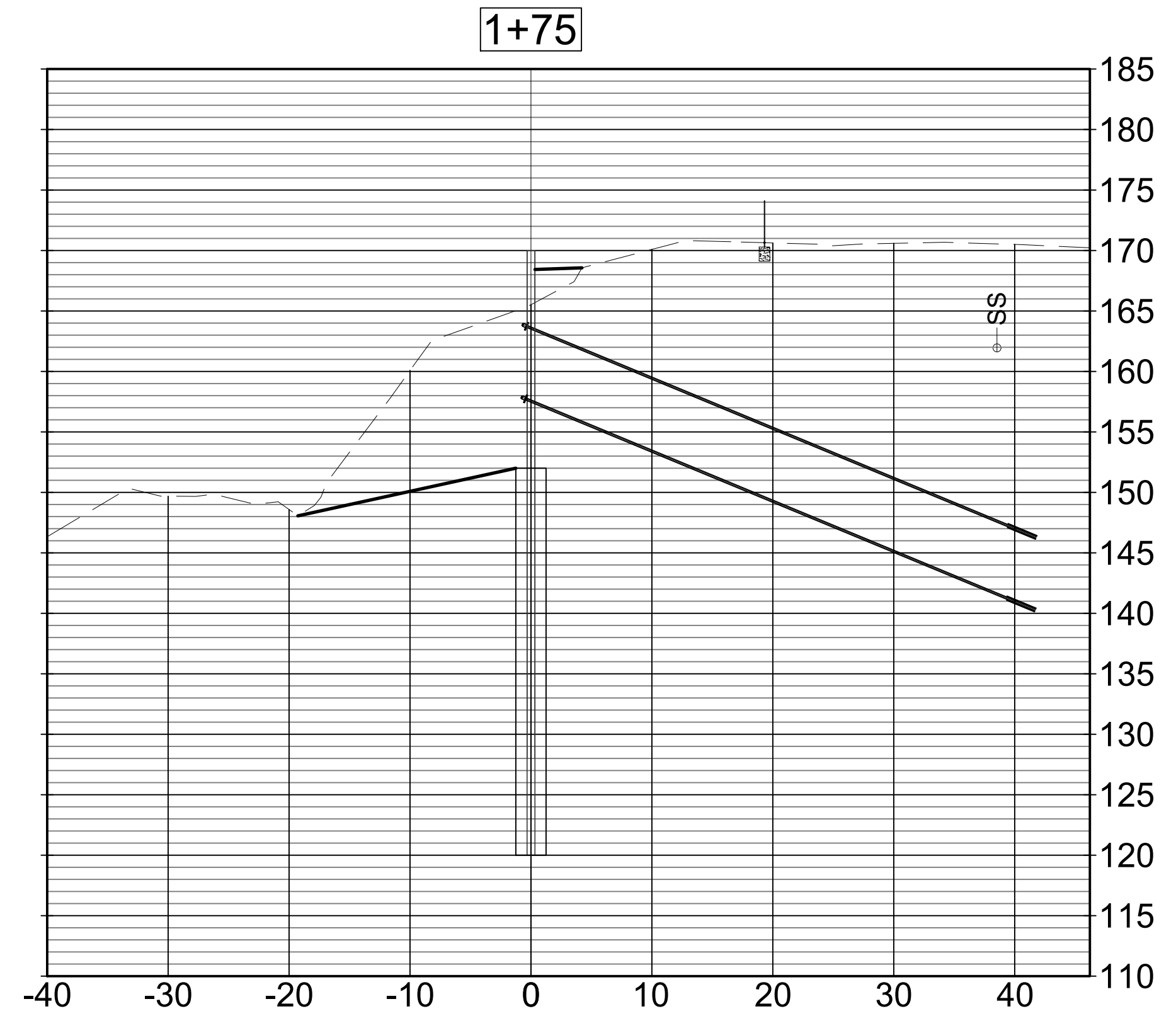
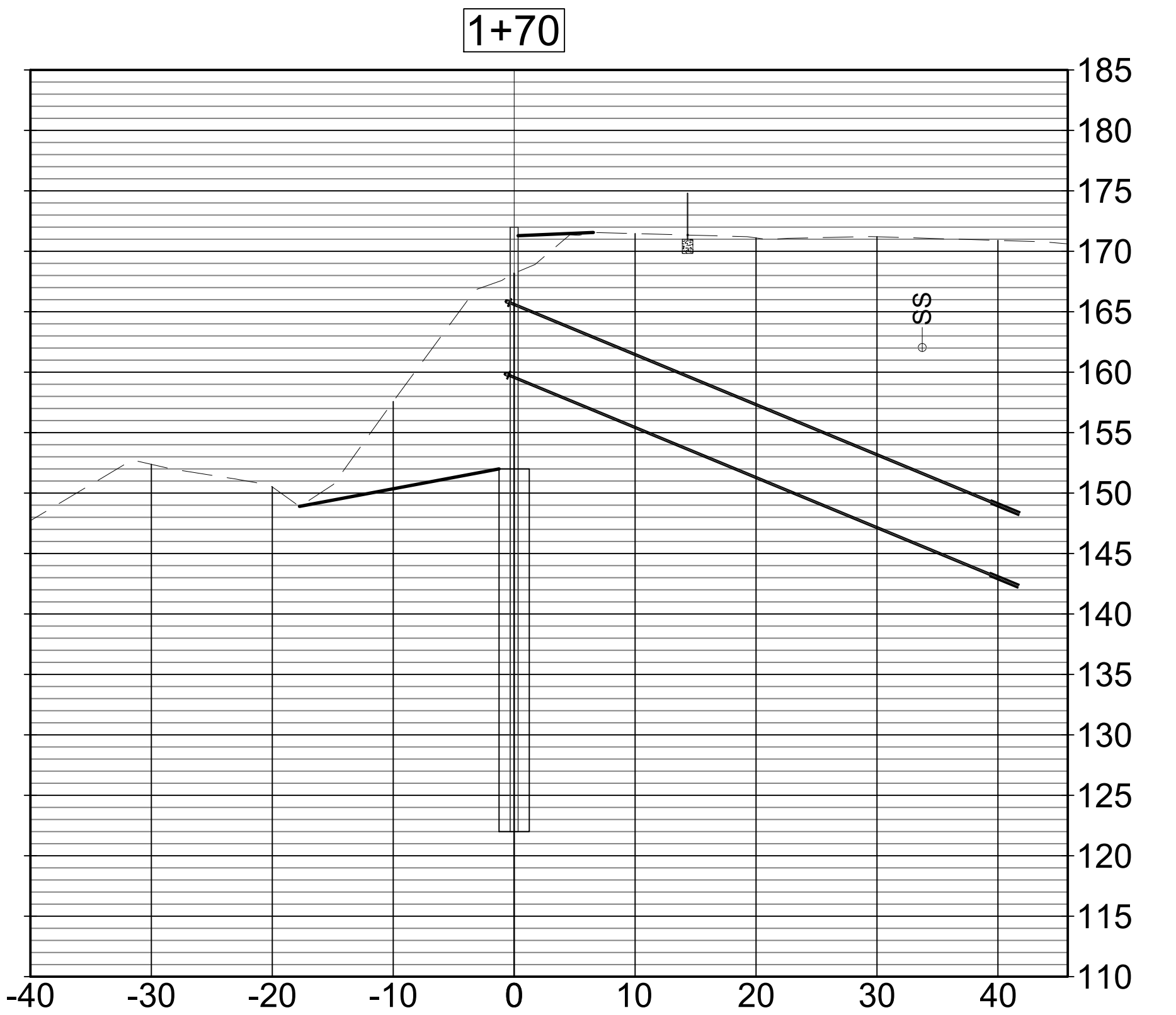
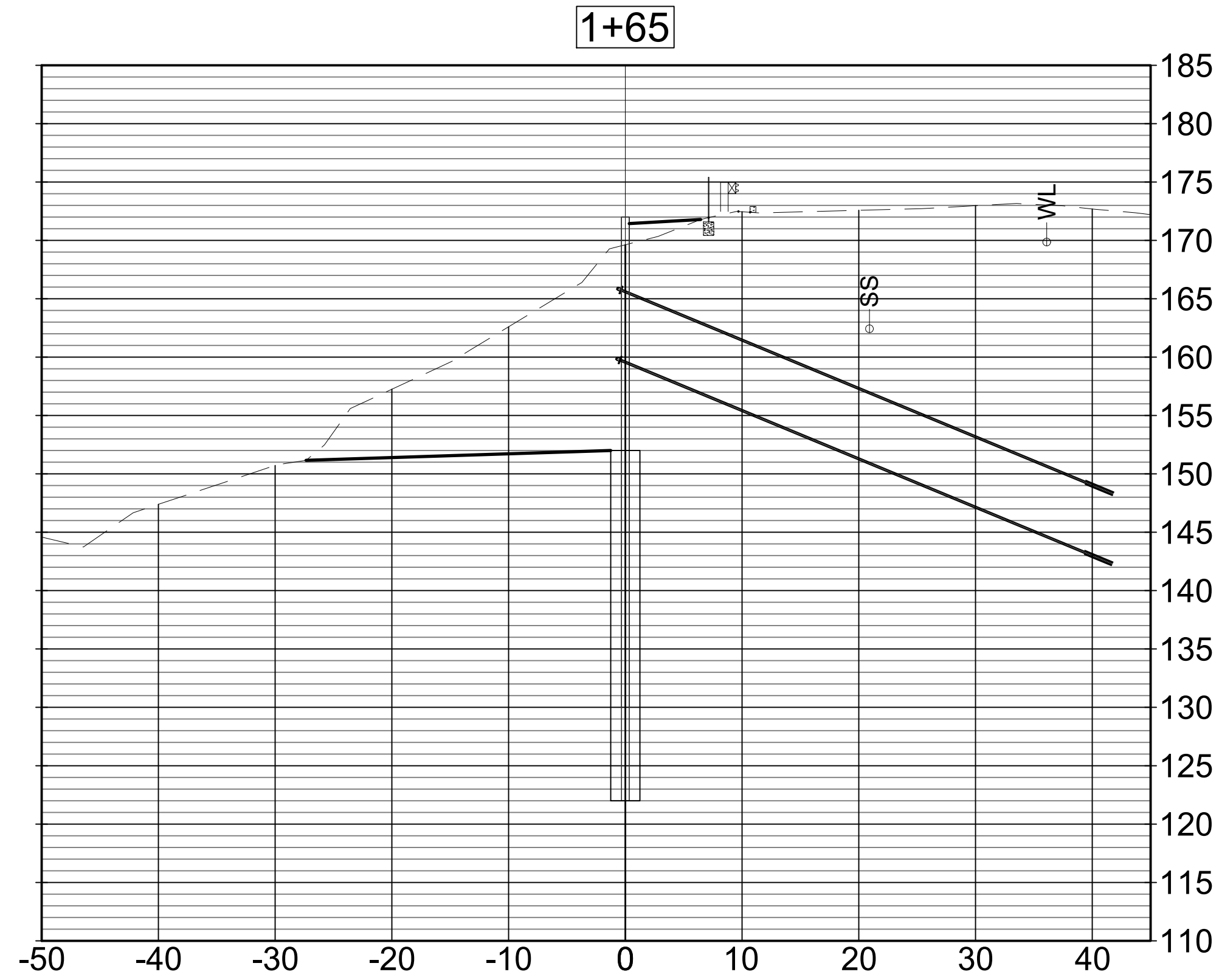
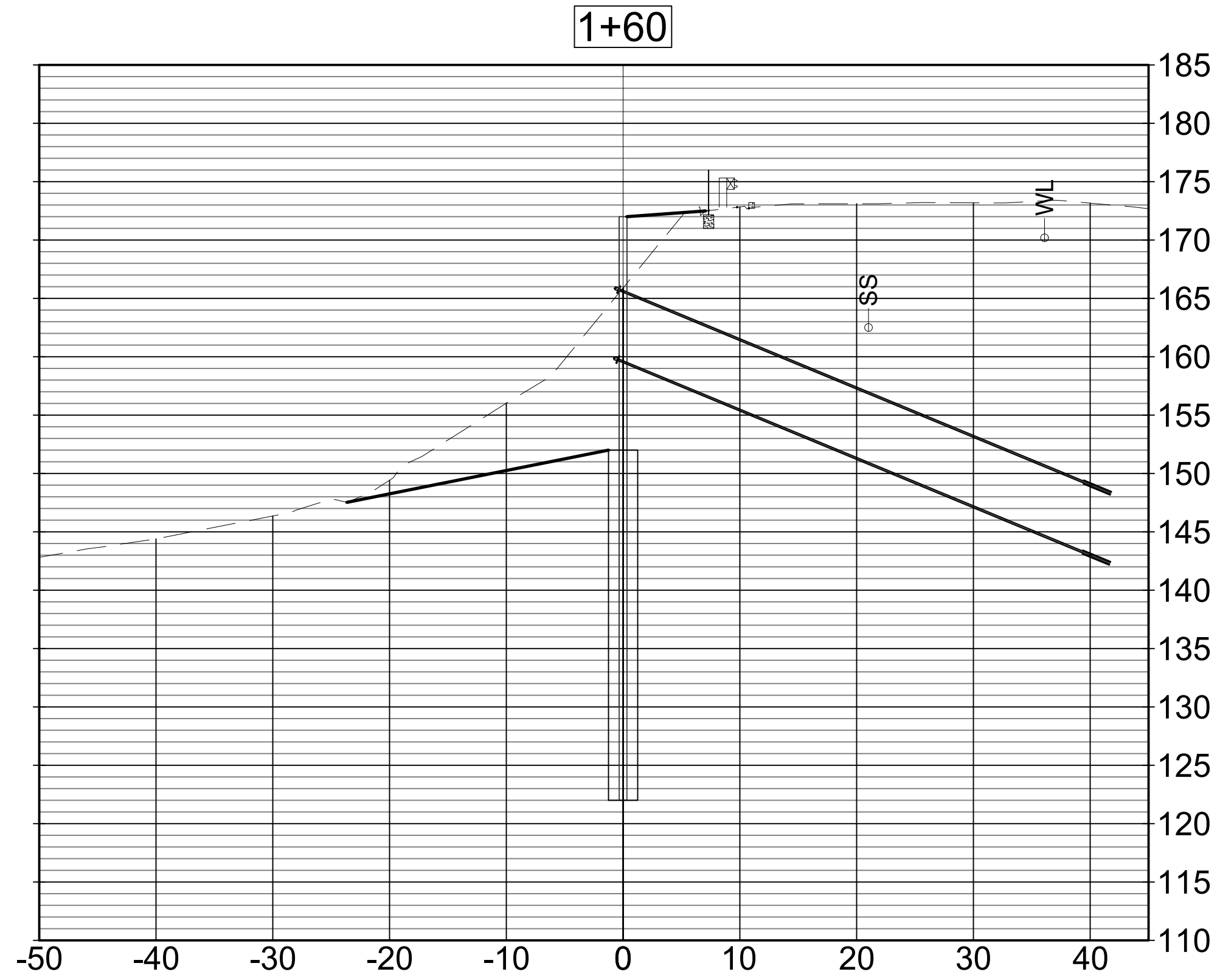
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2	9/22/2023			RESPOND TO COMMENT	
3	10/12/2023			100% SUBMISSION	

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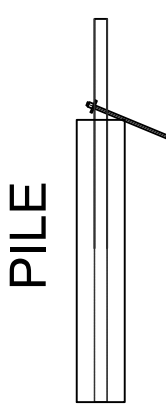
**EMERGENCY STITCH/ SOLDIER PILE WALL SECTIONS**  
RICHMOND, CALIFORNIA

Size D  
Scale: AS NOTED  
Date: 10/12/2023  
FIGURE: 5 OF 10

P:\2022\2200159\_SALVINO-CT\_C0929\1\_RICHMOND\CA\1\2200159\_PLANNING PLOT STYLE: PLOT DATE: 3/27/2023 PLOT SCALE: 1"=10'



LEGEND



TIEBACK

CHAINLINK FENCE

GUARDRAIL

CURB

PROPOSED GRADE

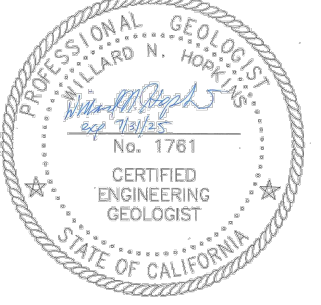
EXISTING GRADE

6" WCWD SANITARY SEWER SS

EBMUD 8" ABESTSTO CEMENT WATERLINE WL



H&V SCALE: 1"=10'



SANTA RITA ROAD AT  
2929 SALVINO CT  
RICHMOND, CALIFORNIA



CITY OF RICHMOND APPROVAL  
CITY ENGINEER  
DATE  
RCE NO. EXP DATE

Sht.	Rev.	Date	By:	Description:	App'd:
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2	9/22/2023			RESPOND TO COMMENT	
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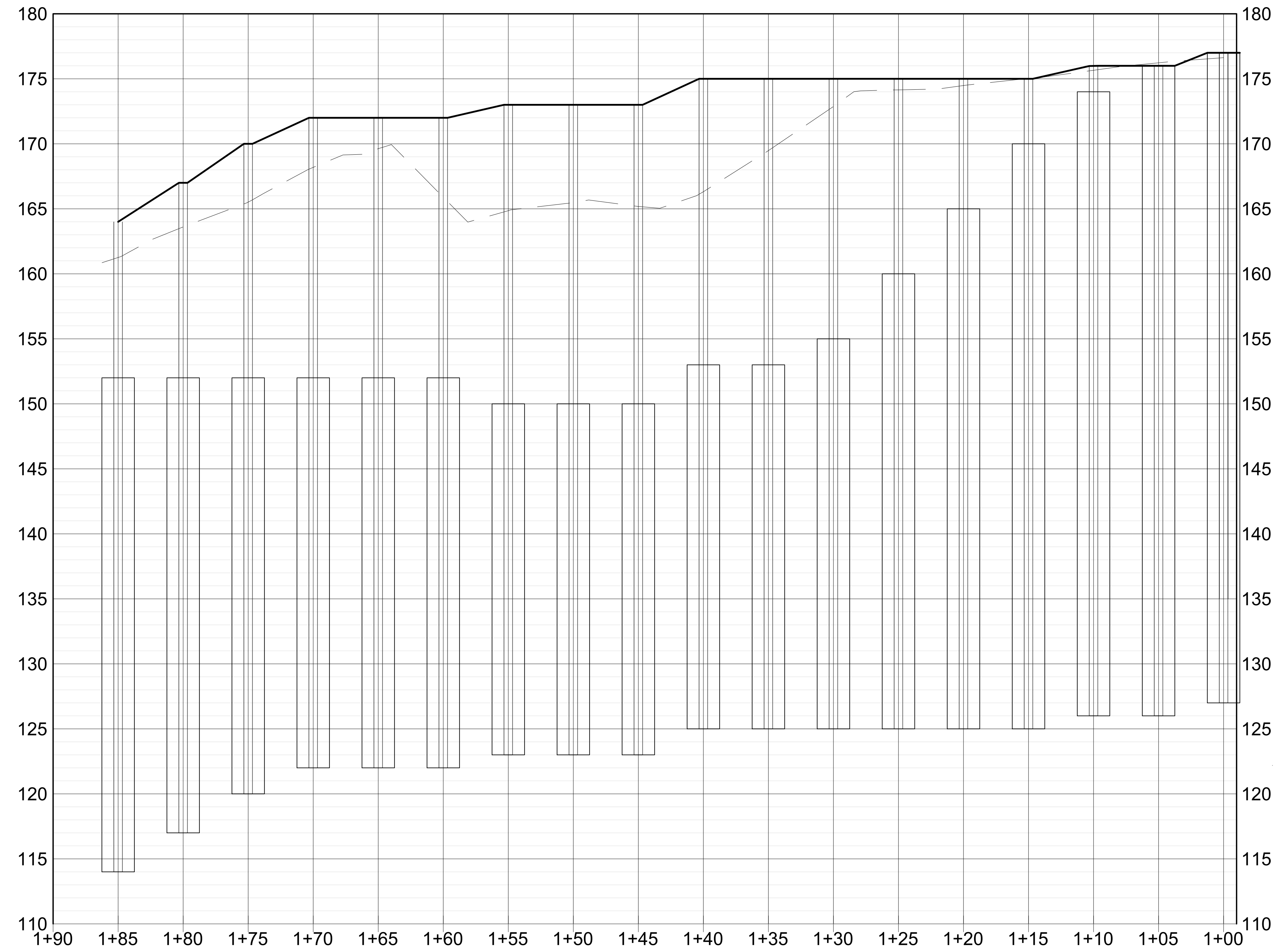
EMERGENCY STITCH/ SOLDIER PILE WALL  
SECTIONS  
RICHMOND, CALIFORNIA

Size D  
Scale: AS NOTED  
Date: 10/12/2023  
FIGURE: 6 OF 10

P:\2022\2200159\_SALVINO-CT\0929\1\_RICHMOND\CAD\DWG\SHEETS\2200159\_PLANNING.PLOT DATE: 3/27/2023 PLOT STYLE: ---- IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY

PIER/PILE TABLE

PILE #	STA	PILE/WALL TOP	WALL BOTTOM AFTER PIER	PILE TIP	PILE LENGTH (FT)	PILE TYPE	WALL HEIGHT (FT)	PIER TYPE	UPPER TIEBACK	LOWER TIEBACK	UNBONDED LENGTH	BOUNDED LENGTH	TOTAL LENGTH	TIEBACK ANGLE		
P1	1+00	177	177	127	50 FT	W18X119	0	30" Ø CIDH	NA	NA	NA	NA	NA	NA		
P2	1+05	176	176	126			0		NA	NA	NA	NA	NA	NA	NA	NA
P3	1+10	176	174	126			2		NA	NA	NA	NA	NA	NA	NA	NA
P4	1+15	175	170	125			5		NA	NA	NA	NA	NA	NA	NA	NA
P5	1+20	175	165	125			10		NA	NA	NA	NA	NA	NA	NA	NA
P6	1+25	175	160	125			15		6	12	6	40	46	22.5		
P7	1+30	175	155	125			20		6	12	6	40	46	22.5		
P8	1+35	175	153	125			22		6	12	6	40	46	22.5		
P9	1+40	175	153	125			22		6	12	6	40	46	22.5		
P10	1+45	173	150	123			23		6	12	6	40	46	22.5		
P11	1+50	173	150	123			23		6	12	6	40	46	22.5		
P12	1+55	173	150	123			23		6	12	6	40	46	22.5		
P13	1+60	172	152	122			20		6	12	6	40	46	22.5		
P14	1+65	172	152	122			20		6	12	6	40	46	22.5		
P15	1+70	172	152	122			20		6	12	6	40	46	22.5		
P16	1+75	170	152	120			18		6	12	6	40	46	22.5		
P17	1+80	167	152	117			15		6	12	6	40	46	22.5		
P18	1+85	164	NA	114			NA		6	12	6	40	46	22.5		



**LEGEND**  
 PROPOSED GRADE —————  
 EXISTING GRADE - - - - -

**WALL CENTER LINE PROFILE**  
 H&V SCALE: 1"=5'  
 0 10 20 Feet



SANTA RITA ROAD AT  
 2929 SALVINO CT  
 RICHMOND, CALIFORNIA



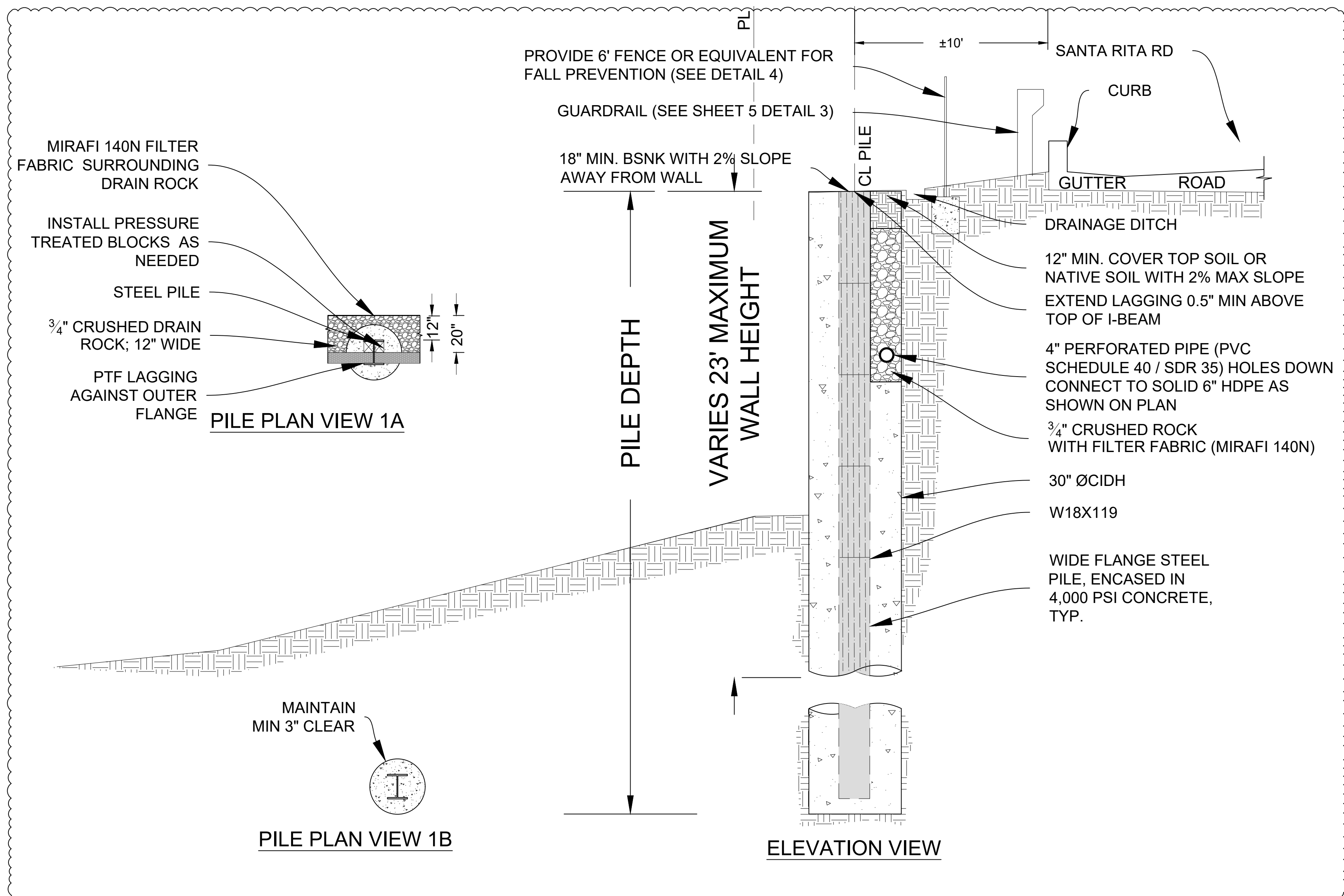
CITY OF RICHMOND APPROVAL  
 CITY ENGINEER \_\_\_\_\_  
 DATE \_\_\_\_\_  
 RCE NO. \_\_\_\_\_ EXP DATE \_\_\_\_\_

Sht.	Rev.	Date	By	Description	App'd
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2	2	9/22/2023		RESPOND TO COMMENT	
3	3	10/12/2023		100% SUBMISSION	

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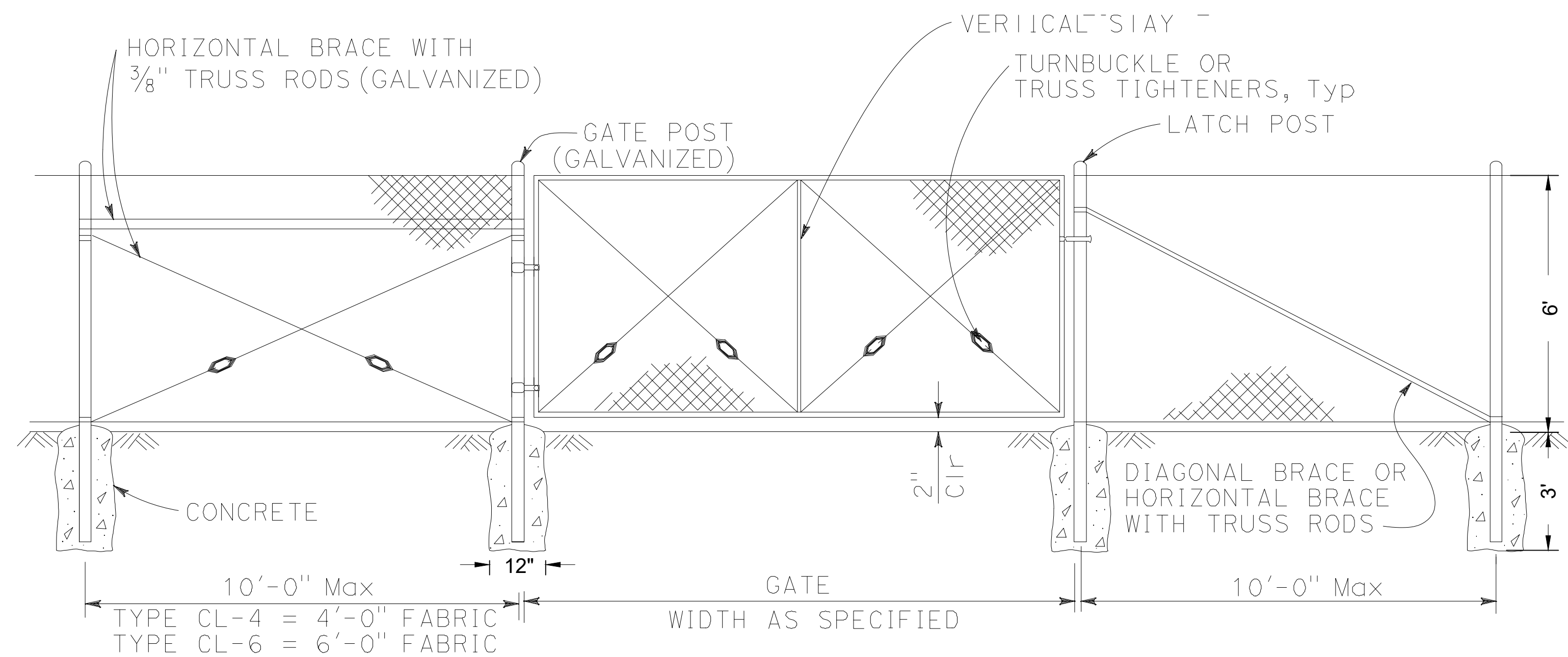
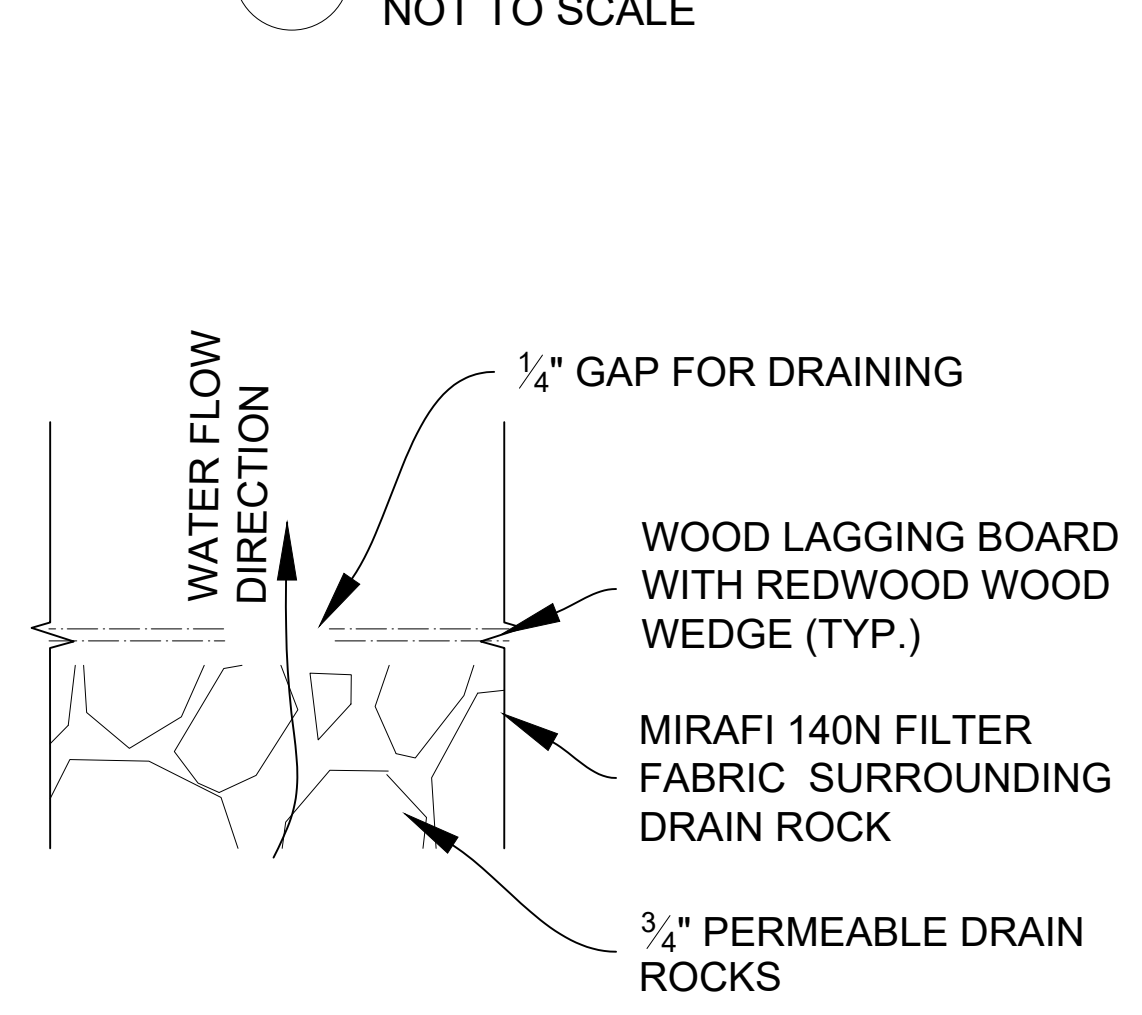
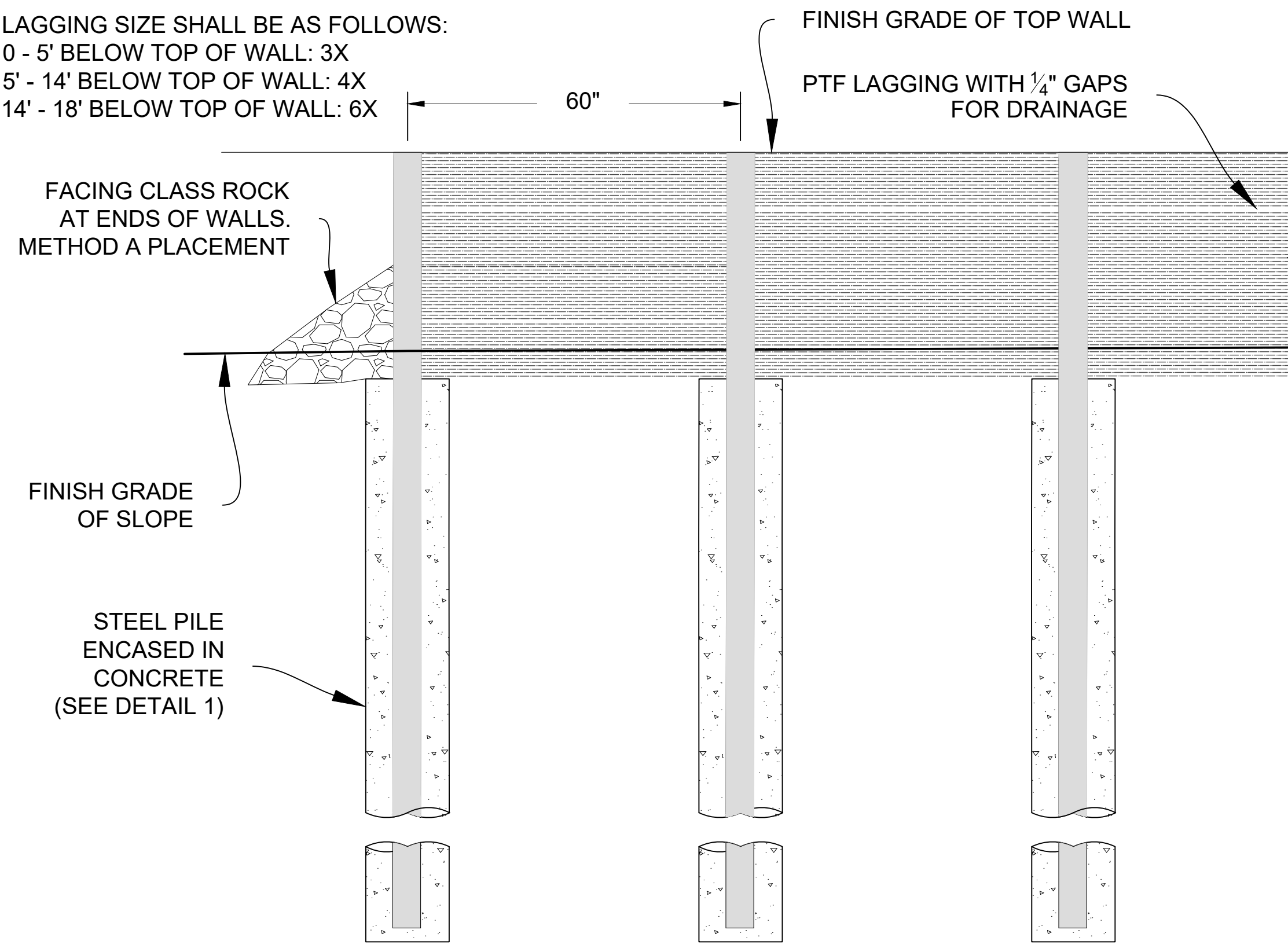
EMERGENCY STITCH/ SOLDIER PILE WALL  
 PROFILE AND TABLE  
 -----  
 RICHMOND, CALIFORNIA

Size D Project 2200159  
 Scale: AS NOTED  
 Date: 10/12/2023  
 FIGURE: 7 OF 10



**NOTE:**

THE WOOD LAGGING MUST COMPLY WITH SECTION 57 "WOOD AND PLASTIC LUMBER STRUCTURES." WOOD LAGGING SHALL BE DOUGLAS FIR NO. 1 OR BETTER. THE LAGGING SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWWA SPECIFICATIONS P-5 USING ACZA WITH A NET RETENTION OF AT LEAST 0.6 POUNDS PER CUBIC FOOT. LAGGING LENGTH TO BE APPROXIMATELY 5' OR AS NEEDED TO FIT PILE SPACING



SANTA RITA ROAD AT  
2929 SALVINO CT  
RICHMOND, CALIFORNIA



CITY OF RICHMOND APPROVAL

CITY ENGINEER \_\_\_\_\_

DATE \_\_\_\_\_

RCE NO. \_\_\_\_\_ EXP DATE \_\_\_\_\_

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3	10/12/2023			100% SUBMISSION	

Design: CN

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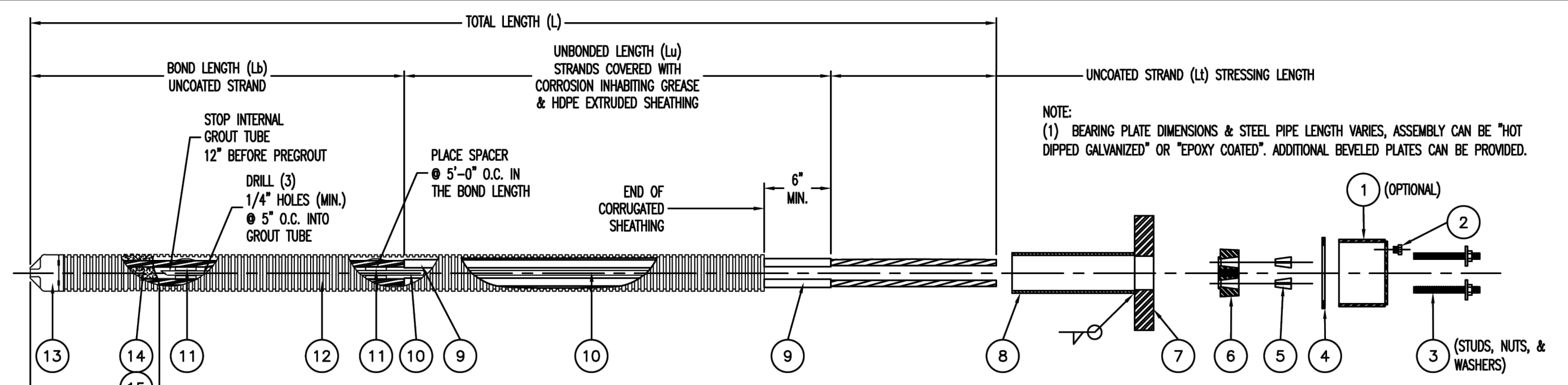
**EMERGENCY STITCH/ SOLDIER PILE WALL STRUCTURAL DETAILS**

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RICHMOND, CALIFORNIA

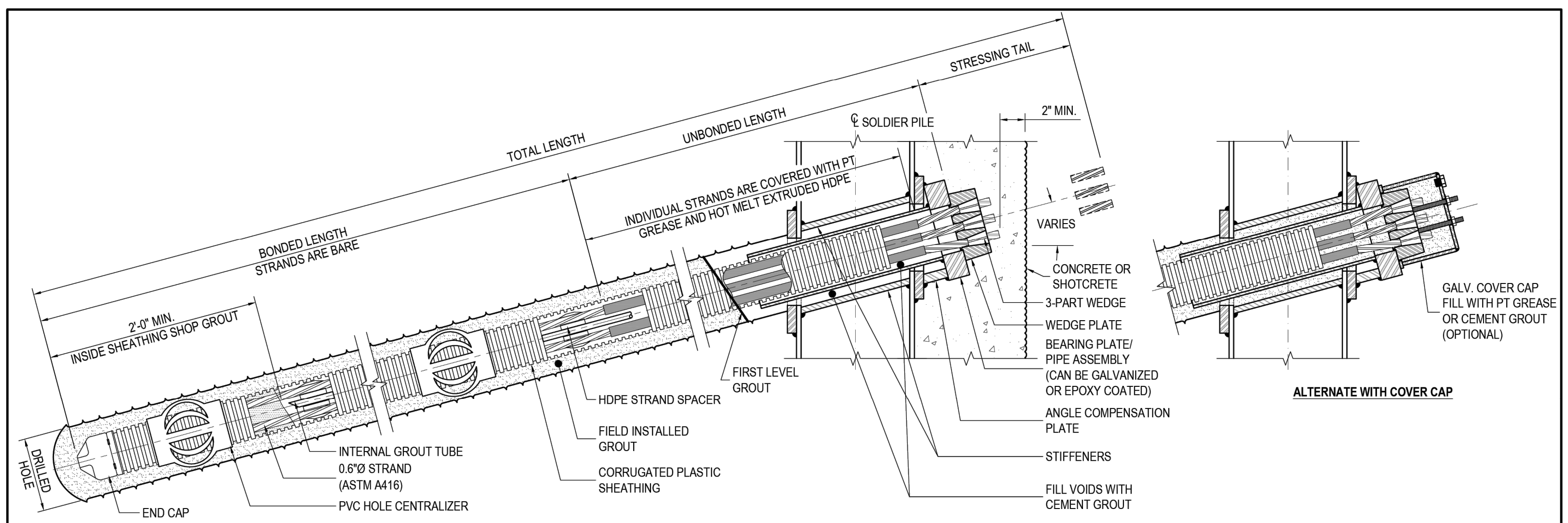
Size D	Project 2200159
Scale:	AS NOTED
Date:	10/12/2023
FIGURE:	8 OF 10

LAST SAVED: 10/13/2023 10:23:13 AM PLOT DATE: 10/12/2023 PLOT STYLE: ...



GROUT MIX DESIGN:  
 WATER/CEMENT RATIO = 0.45  
 PORTLAND CEMENT IN HIGH EARLY = 94 lbs  
 REDBUILD 1000 = 12 fl oz  
 WATER = 4.5 GAL

LOCATION	LINE No.	ITEM DESCRIPTION	UNIT	PART NUMBER	QUANTITY PER ANCHOR	TOTAL
ANCHORAGE	1	7-0.6 Cover Cap Galv	pc	68 07 7248		
	1a	7-0.6 Cover Cap EC	pc	68 07 7245		
	2	5/8-11UNC Hex Bolt 1" Galv A307 Grade 2	pc	00 00 760		
	2a	5/8" Flat Washer - Galv	pc	00 00 749		
	3	3/8"-16 UNC 6" Threaded Stud Galv A307 GR2	pc	00 00 746		
	3a	3/8"-16UNC Hexnut Galv	pc	00 00 748		
	3b	3/8" Washer - Galvanized GI	pc	00 00 742		
	4	Cover Cap Gasket 7"OD 5.75"ID 531AP-534-02	pc	68 09 7241		
	5	0.6" 3-Part Wedge	pc	68 00 0536		
	6	7-0.6" Cast Wedge Plate	pc	68 07 1532E		
FABFORM GEO PER STRAND 44	7	Bearing Plate w/ 4" Hole	pc	ANSI PLATE		
	8	4" Sch. 40 Steel Pipe x 18" Min	pc	ANSI PIPE		
	9	0.6" Strand 270 GAPE 50 mi	ft	302656		
	9a	0.6" Strand 270 GAPE 50 mi-US	ft	302650		
	9b	0.6" Strand 270 Galvans GAPE50	ft	302652		
	10	PE Tubing 12mm ID MK3	ft	U00076512		
	11	4/6-0.6" Spacer #1/2" Duct	pc	68 06 6562		
	12	2.5" ID x 2.00" OD x 60" Hill	pc	U00041100		
13	46mm End Cap/Ground Sleeve	pc	B448-42020			
14	Portland Type III High-Early	lbs	U00079610			
15	Water	gal	U00010007			
16	Rebuild 1000	lbs	U00079013			
17	96X4 Pallet 2-Way W/Wing	pc	U30070110			
18	Steel Anchor Rack	pc	RACK01			



1 TYPICAL SECTION DYWIDAG STRAND TIEBACK

**DYWIDAG Strand Anchors**  
 Use 0.6"Ø, 7-Wire, Grade 270 KSI Strand Per ASTM A416 (Uncoated Strand), ASTM A882 (Epoxy Coated Strand)

Number of Strands	Nominal Cross Section Area (Aps)	Ultimate Load (Fu x Aps)	Prestressing Force			Nominal Weight (bare steel only)						
			0.80 Fu x Aps	0.70 Fu x Aps	0.60 Fu x Aps							
ea	in²	msf	kips	kN	kips	kN	kips	kN	lb/ft	kg/m		
1	0.217	140	58.6	261	46.9	208	41.0	182	35.2	156	0.74	1.09
2	0.434	280	117.2	521	93.7	417	82.0	365	70.3	313	1.48	1.64
3	0.651	420	175.8	782	140.6	625	123.0	547	105.5	469	2.22	3.27
4	0.868	560	234.4	1043	197.5	834	164.1	730	140.6	626	2.96	4.46
5	1.085	700	293.0	1303	234.4	1043	205.1	912	175.9	782	3.70	5.51
6	1.302	840	351.6	1564	281.3	1251	246.1	1095	221.0	938	4.44	6.55
7	1.519	980	410.2	1825	328.2	1460	287.2	1277	246.2	1095	5.18	7.74
8	1.736	1120	468.8	2085	375.0	1668	328.1	1460	281.3	1251	5.92	8.78
9	1.953	1260	527.4	2346	421.9	1877	389.2	1642	316.4	1408	6.66	9.97
12	2.604	1680	703.2	3128	562.6	2503	492.3	2190	422.0	1877	8.88	13.24
15	3.255	2100	879.0	3910	703.2	3128	615.3	2737	527.4	2346	11.10	16.52
19	4.123	2660	1113.4	4953	890.7	3962	779.4	3467	688.0	2972	14.06	20.98
27	5.639	3780	1582.2	7038	1268.8	5331	1070.6	4827	948.4	4223	19.98	29.76

- GROUTING NOTES**
- ALL CEMENT GROUT, WATER AND ADMIXTURES AND GROUTING OPERATIONS SHALL BE AS OUTLINED IN THE POST-TENSIONING INSTITUTE'S RECOMMENDATIONS FOR PRESTRESSED ROCK AND SOIL ANCHORS, 4TH EDITION.
  - INJECT FIRST STAGE GROUT. AT THE CONTRACTOR'S OPTION, POS GROUTING MAYBE DONE UPON CEMENT GROUT REACHED ITS INTIAL SET.
  - ONCE GROUT HAS REACHED SUFFICIENT STRENGTH, TEST ANCHOR AS SPECIFIED IN CONTRACT DOCUMENTS.
  - UPON SUCCESSFULLY PASSING ANCHOR LOAD TESTS, LOCK-OFF ANCHOR AT THE SPECIFIED LOAD.
  - INJECT SECOND STAGE CEMENT GROUT, ENSURING ALL REMAINING VOIDS WITHIN THE TRANSITION TRUMPET AND WEDGE HOLES ARE FREE OF AIR, WATER, AND DILUTED GROUT BY EXPPELLING INJECTED GROUT THROUGH THE VENT PORT, MAINTAINING A MINIMUM 2FT. GROUT HEAD UNTIL CEMENT GROUT SETS.
- BEARING PLATE DESIGN CRITERIA**  
 BEARING PLATE BENDING STRESS AT 95% FU OF THE STRAND ANCHOR SHALL NOT EXCEED THE BEARING PLATE STEEL NOMINAL YIELD STRENGTH. BEARING STRESS AT MAXIMUM TEST LOAD SHALL NOT EXCEED THE ALLOWABLE STRUCTURAL SUPPORT COMPRESSIVE STRENGTH.
- BOND BREAKER NOTE**  
 DYWIDAG PERMANENT STRAND ANCHORS COMPLY WITH PTI CLASS 1 CORROSION PROTECTION. HDPE OR PP BOND BREAKER MUST BE HOT MELT EXTRUDED OVER THE INDIVIDUALLY GREASE STRANDS DURING THE GREASING PROCESS. USE OF PREMANUFACTURED PLASTIC TUBES IS NOT PERMITTED.

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DWG TITLE: **4-0.6" TO 6-0.6" D.C.P. PERMANENT STRAND SYSTEM**

UW STANDARD FABRICATION

DSI

DYWIDAG Systems International, USA, Inc.

REV.	DATE	ISSUE DESCRIPTION	NAME	CHKD.	DRAWN	L. BRION	05.08.17	SCALE:	N.T.S.
						L. BOGDAN			

Rev.	Date	Description	Name	Chkd.	Dwg Title:
1	10/13/2023	UPDATING THE TITLE BLOCK			DYWIDAG PERMANENT STRAND TIEBACK- USING ANGLE COMPENSATION AGAINST SOLDIER PILE

Drawn: L. BRION Date Drawn: 00.00.00 Scale: N.T.S.  
 Chkd: L. BOGDAN Date Chkd: 00.00.00

Project: United States of America  
 Location: United States of America  
 Contractor: United States of America

Job Number: J-10000  
 Dwg No: 1 of 1

DYWIDAG Systems International, USA  
 Phone: +1-949-331-6161  
 E-mail: dsiusa@dsworld.com

1 TIEBACK SCHEMATIC NOT TO SCALE

2 TIEBACK STRAND ASSEMBLY NOT TO SCALE

3

SANTA RITA ROAD AT  
 2929 SALVINO CT  
 RICHMOND, CALIFORNIA

**QUESTA**  
 ENGINEERING CORP.  
 Civil Environmental & Water Resources  
 (510) 236-6114  
 FAX (510) 236-2423  
 P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807



CITY OF RICHMOND APPROVAL

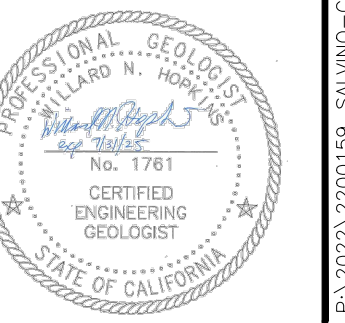
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Sht.	Rev.	Date:	By:	Description:	App'd:
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	2	9/22/2023		RESPOND TO COMMENT	
	3	10/12/2023		100% SUBMISSION	

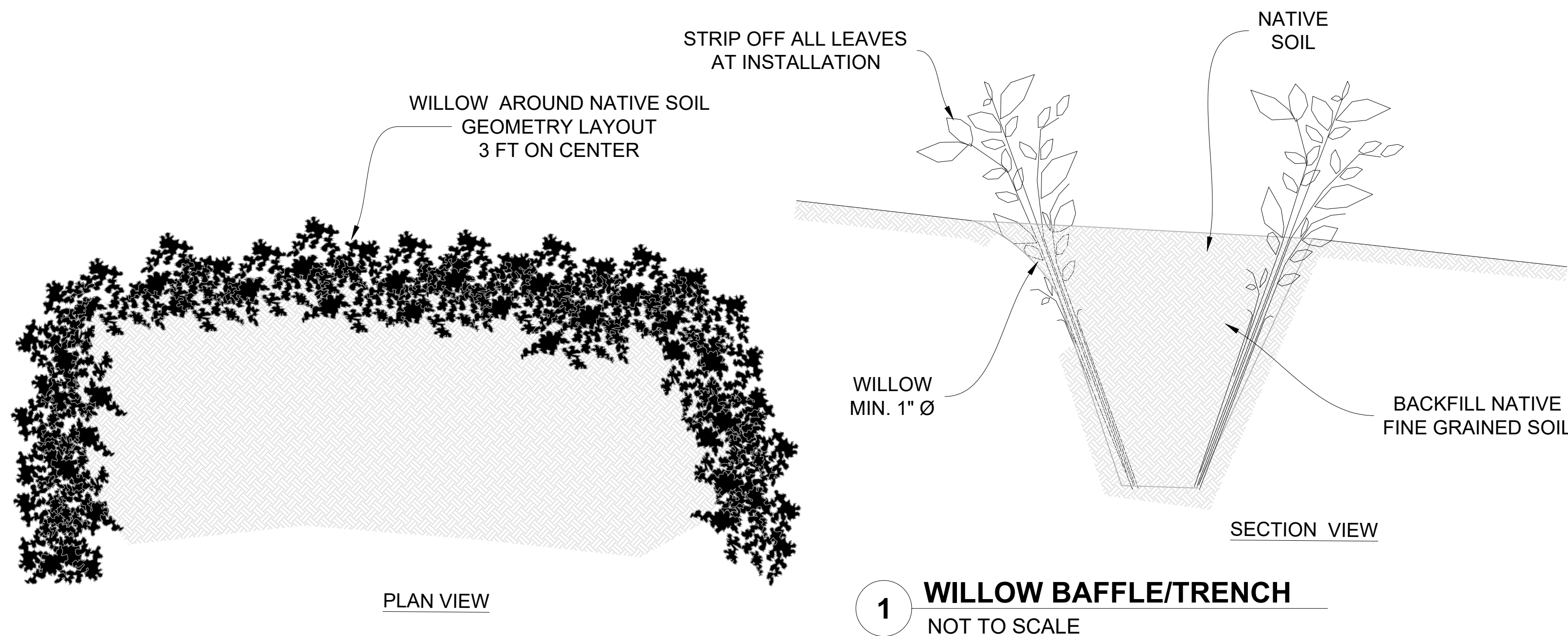
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 Drawn: KT  
 Checked: WH  
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**EMERGENCY STITCH/ SOLDIER PILE WALL TIEBACK DETAILS**  
 RICHMOND, CALIFORNIA

Size D  
 Scale: AS NOTED  
 Date: 10/12/2023  
 FIGURE: 9 OF 10



P:\2022\2200159\_SALVINO-CT\_(0925)\_RICHMOND\CAD\SHETS\2200159\_PLANNING... PLOT STYLE: ... PLOT DATE: 10/13/2023 PLOT DATE: 10/13/2023



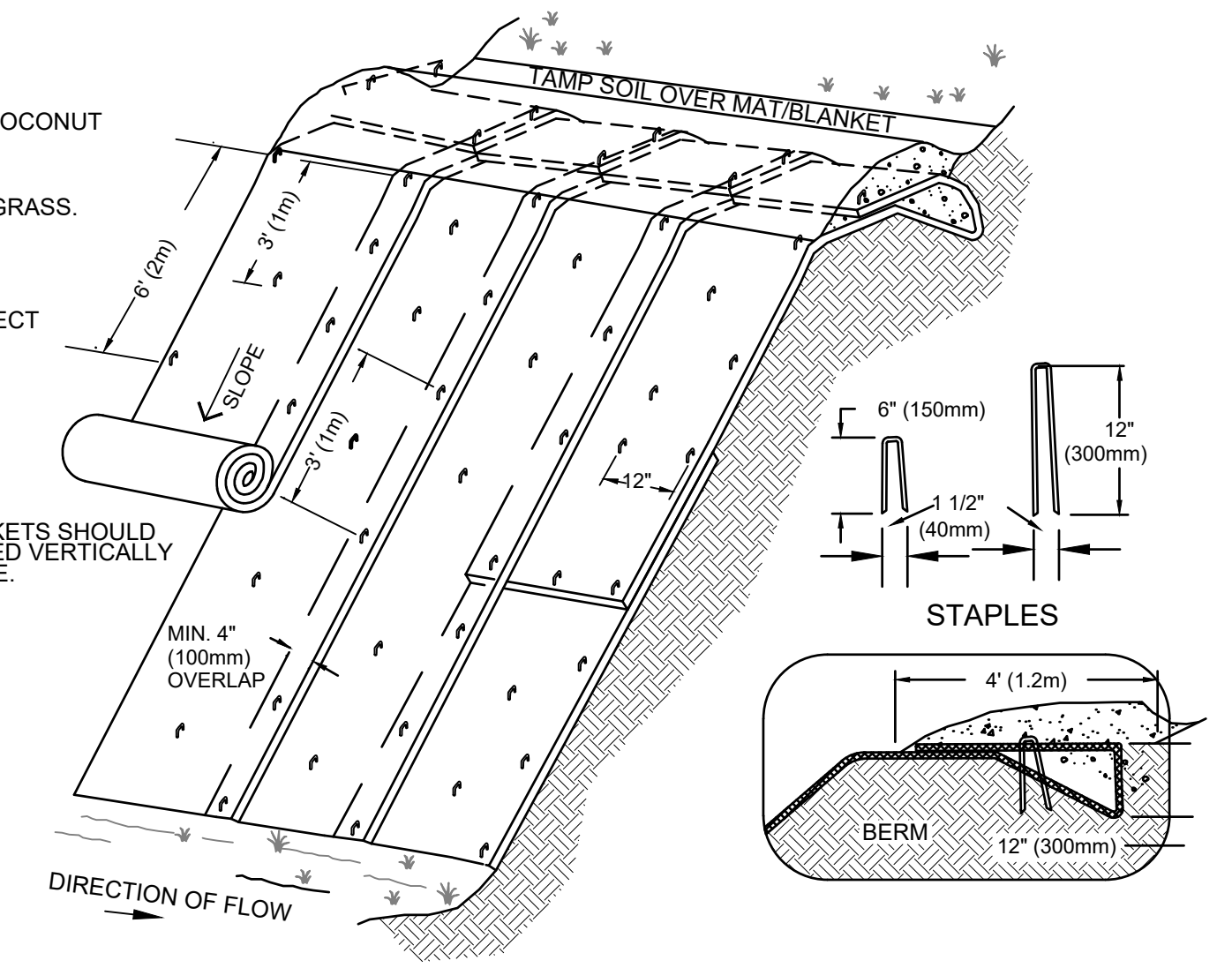
**1 WILLOW BAFFLE/TRENCH**  
NOT TO SCALE

**EROSION CONTROL BLANKETS NOTES:**

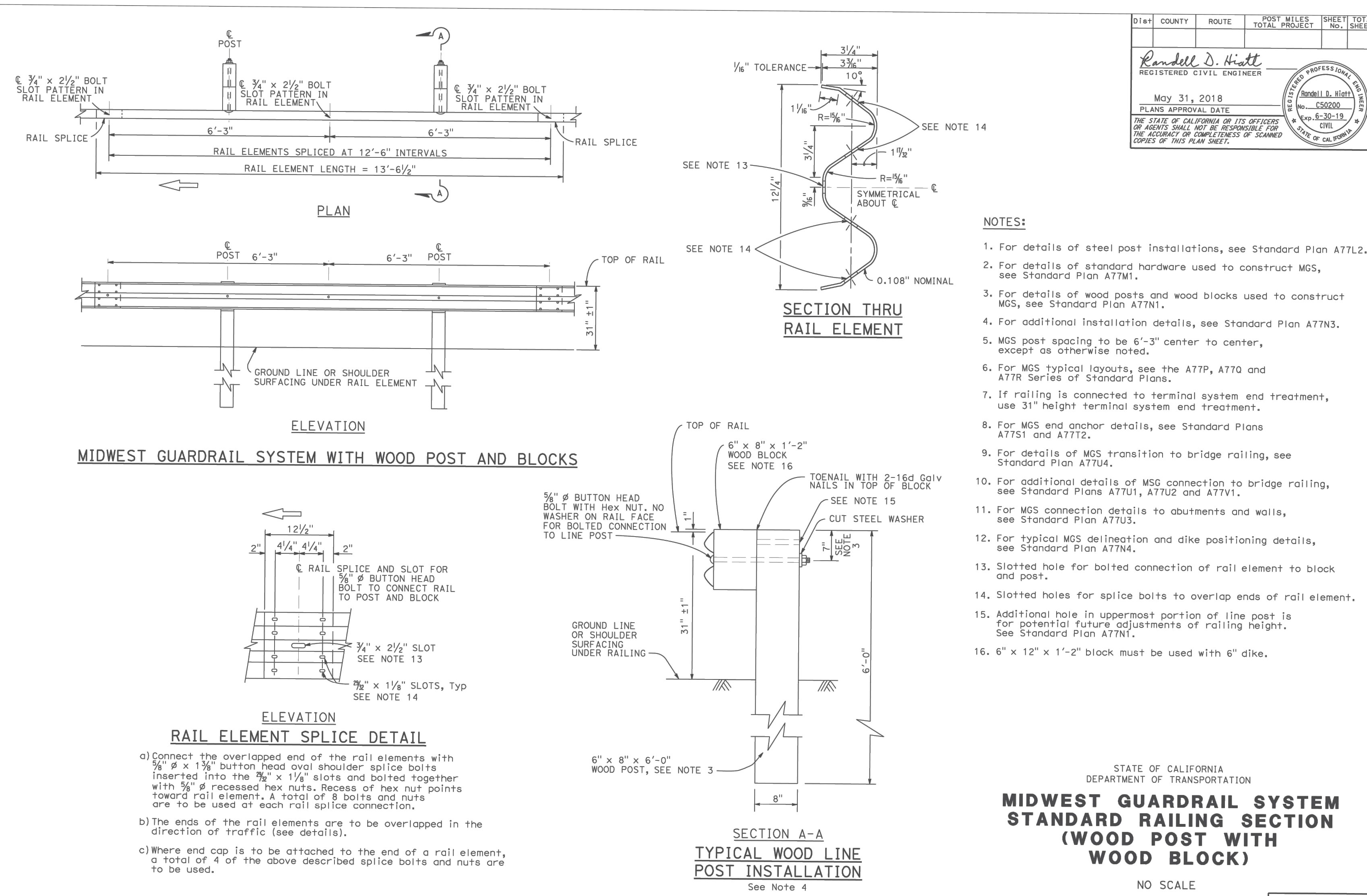
- EROSION CONTROL BLANKETS/MATS SHALL BE BIODEGRADABLE. USE BIONET C125BN LONG-TERM BIODEGRADABLE, DOUBLE-NET COCONUT BLANKET OR APPROVED EQUAL.
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS.
- MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

**DISTURBED AREA TREATMENT NOTES:**

- DISTURBED SURFACE TREATMENT OCCUR SEP 1 - OCT 15
- REMOVE TARP SURFACE
- HYDROSEED ALL DISTURBED SURFACE
- INSTALL EROSION CONTROL BLANKET OVER HYDROSEEDED AREA
- INSTALL WILLOW BAFFLE PER DETAIL ALONG TOE OF LAND SLIDE



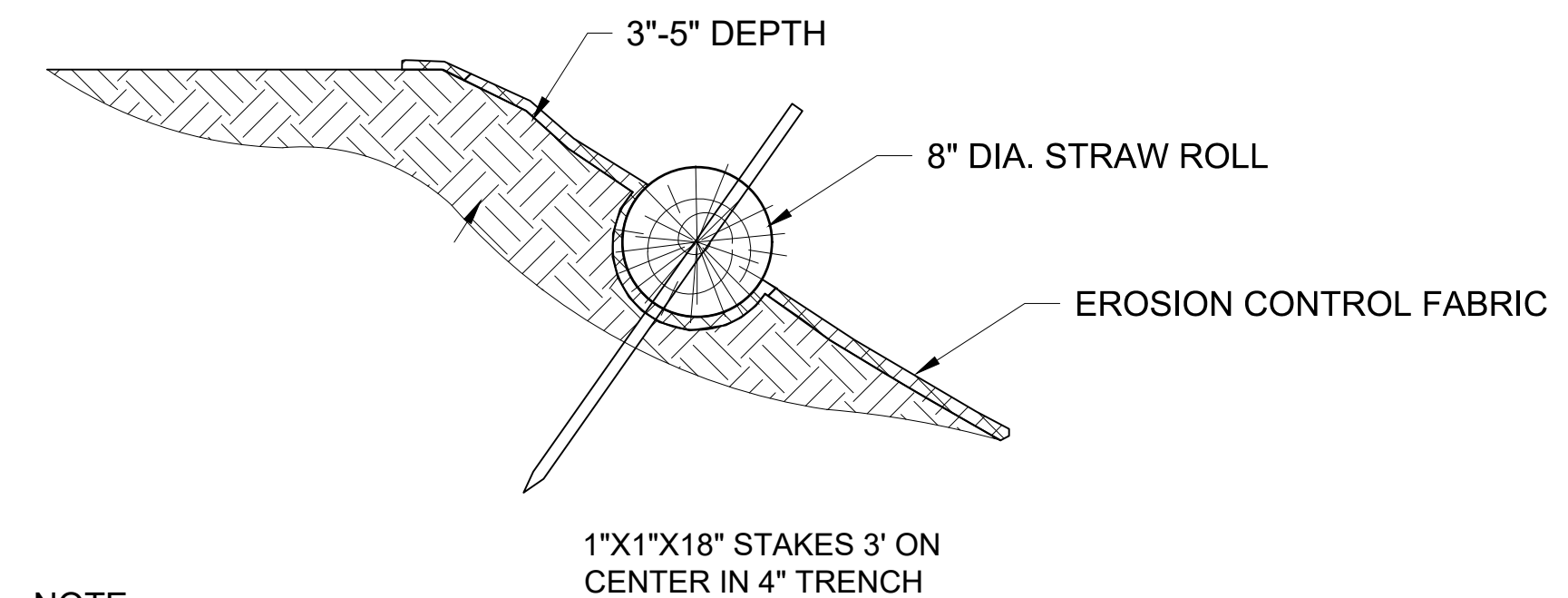
**2 EROSION CONTROL BLANKET**  
NOT TO SCALE



**3 CALTRANS A77L2 GUARDRAIL**  
NOT TO SCALE

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**MIDWEST GUARDRAIL SYSTEM  
STANDARD RAILING SECTION  
(WOOD POST WITH  
WOOD BLOCK)**  
NO SCALE

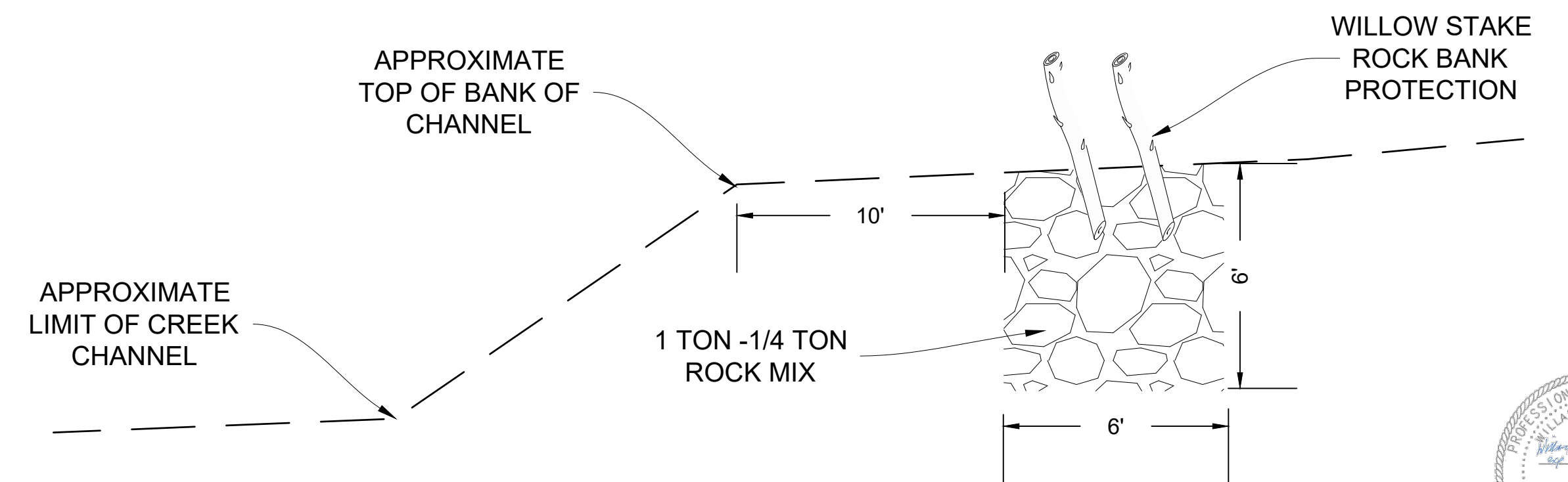
**A77L1**



**NOTE:**

- PLACE THE LOOSE EDGE OF THE STRAW WATTLES INTO A 4-INCH DEEP TRENCH AND SECURE WITH A SINGLE ROW OF STAPLES INSTALLED ON 12-INCH CENTERS. THEN PROCEED TO POSITION THE STRAW WATTLES INTO THE TRENCH ADJACENT TO THE SIDEWALK/BACK OF CURB/BACK OF V-DITCH.
- DRIVE WOODEN 18-INCH STAKES THROUGH THE WATTLE ON APPROXIMATELY 3-FOOT CENTERS TO SECURE IN PLACE. CONSTRUCTION OF THE TRENCH AND PROPER STAPLE PLACEMENT IS NECESSARY TO PREVENT WATER AND SEDIMENT FROM FLOWING DIRECTLY UNDER THE SEDIMENT CONTROL WATTLE. WITH THIS TYPE OF INSTALLATION, WATER WILL ACCUMULATE BEHIND THE WATTLE, ALLOWING SEDIMENT LADEN WATER TO BE FILTERED THROUGH THE ROLL WHILE DEPOSITION OF SEDIMENT OCCURS BEHIND THE WATTLE.

**4 STRAW WATTLES**  
NOT TO SCALE



**5 ROCK BANK**  
NOT TO SCALE

SANTA RITA ROAD AT  
2929 SALVINO CT  
RICHMOND, CALIFORNIA

**QUESTA**  
ENGINEERING CORP.  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807  
Civil Environmental & Water Resources  
(510) 236-6114  
FAX (510) 236-2423  
questa@questaec.com



CITY OF RICHMOND APPROVAL

CITY ENGINEER	DATE
RCE NO.	EXP DATE

Sht	Rev	Date	By	Description	App'd
1	5/18/2023			RESPOND TO COMMENT	
2	9/22/2023			RESPOND TO COMMENT	
3	10/12/2023			100% SUBMISSION	

Design:	CN
Drawn:	KT
Checked:	WH
App'd:	CN

EMERGENCY STITCH/ SOLDIER PILE WALL  
EROSION CONTROL AND GUARDRAIL DETAILS  
RICHMOND, CALIFORNIA

Size D	Project 2200159
Scale:	AS NOTED
Date:	10/12/2023
FIGURE:	10 of 10

APPENDIX E – GEOTECHNICAL REPORT<sup>1</sup>

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<sup>1</sup> Addendum #1



## ***Geotechnical Evaluation***

### ***Soldier Pile/Stitch Wall Design for Protection of Santa Rita Road from Landslide at 2929 Salvino Court***

---

*Prepared For:*

***Mr. Daniel Chavarria,  
Public Works Director  
City of Richmond  
450 Civic Center Plaza  
Richmond, CA 94804***

*Prepared By:*

***Questa Engineering  
Corporation  
1220 Brickyard Cove Road,  
Suite 206  
Richmond, CA 94801***

***May 30, 2023***

Civil,  
Environmental  
& Water  
Resources



May 30, 2023

Daniel Chavarria  
Public Works Director  
City of Richmond Public Works  
450 Civic Center Plaza  
Richmond, CA 94804

**Subject:** Geotechnical Evaluation, Soldier Pile Stitch Wall Design for Protection of Santa Rita Road adjacent to Landslide on Private Property (2929 Salvino Court), Richmond, California

Dear Mr. Chavarria:

This letter presents results of our Geotechnical Evaluation for construction of a Soldier Pile Wall at Santa Rita Road adjacent to 2929 Salvino Court, in the El Sobrante area of Richmond, California. Questa has been performing monitoring of the landslide activity for the City of Richmond Public Works Division since February 1, 2023. During the winter and spring storms of 2023, a small bank failure area along Wilkie Creek has expanded to include a large portion of the property at 2929 Salvino Court and adjacent properties, including City property located along Santa Rita Road (**Photographs 1 to 8**). The landslide area is currently covered in plastic sheeting to protect it from the direct affects of rainfall and to minimize the amount of infiltration into the landslide deposit (**Photographs 9 to 17**). The expanded slope failure area is currently threatening to extend into Santa Rita Road (**Photographs 13 and 16**).

## GEOTECHNICAL EVALUATION

Questa performed a geotechnical evaluation including the completion of five Triggs Dynamic Cone Penetrometer test holes to evaluate the strength of the materials present in the landslide area. Two of the holes, T-1 and T-4, were completed in the area of the proposed Soldier Pile Stitch Wall adjacent to Santa Rita Road as shown on **Figure 1**. Three additional holes were completed in the slide deposit area including two at the toe near the Creek (T-2 and T-3) and one (T-5) in the deep pit below the main failure area. Samples of the soils were also collected in order to perform physical properties testing the materials.

### *Dynamic Cone Penetrometer Test Holes*

We performed the subsurface investigation for the proposed Soldier Pile Stitch Wall by completion of five Dynamic Cone Penetrometer (DCP) holes using the Triggs Wildcat system. The Triggs Wildcat utilizes a 35-pound hammer to drive a 1.4 inch diameter cone tip connected by steel rods. No drilling is performed during the testing. The Triggs Wildcat DCP data is in blows per 4 inches (10 cm), which is equivalent to the Standard Penetration Test which utilizes a 140-pound hammer dropped from 30 inches and provides blow counts per 12 inches, which is known as the N-value. The N-value is

indicative of the strength of the material being penetrated. The DCP test results are converted to equivalent N' values for purposes of geotechnical analysis.

The location of the DCP holes are shown on **Figure 1**. The DCP logs are presented as **Figures 2, 3, 4, 5** and **6**. T-1 (**Figure 2**) and T-4 (**Figure 5**) were completed adjacent to the headwall of the landslide. These holes penetrated soft conditions in the top 2.5 feet below ground surface (BGS), followed by medium stiff soil conditions from approximately 2.5 to 5.0 feet BGS. We interpret these soils as the organic-bearing grayish brown clay soils and olive brown sandy clay soils which have been viewed in the sidewalls of the slope failure areas. Soils below 5.0 feet consist of predominantly medium stiff, stiff and very stiff soils, interpreted to be weathered claystone/mudstone of the Orinda Formation. T-1 had consistently higher blow counts and was completed at a greater distance from the unstable slopes. T-4 was completed within approximately 3 feet of the slope failure, and soils strengths have likely been affected by the failure of adjacent soils and relaxing of the soil strength adjacent to the failed slopes. DCP holes T-2 and T-3 (**Figures 3** and **4**) were completed at the toe of slope at the pinch point of the landslide. These holes penetrated very soft to soft conditions to depths of 4 to 4.5 feet in the saturated landslide flow deposit. Soils became medium stiff to stiff from 4 to 5 feet, and very stiff to hard from 5 to 8.5 feet BGS. DCP hole T-5 (**Figure 6**) was completed in the pit area of the landslide, at approximately 15 feet below the top of bank. T-5 penetrated very soft conditions to a depth of 3 feet BGS, medium stiff soil to 5 feet BGS, and stiff to hard conditions to the bottom of the hole at approximately 6.5 feet BGS.

Sampling of site soils was also performed to evaluate physical properties of the soils in the shallow subsurface. Hand sampling was performed on the exposed soils in the top eight (8) feet below adjacent ground surface in the north wall of the slope failure. The north side wall was scraped to expose the in situ soils and sampling of the soils was performed using hand sampling equipment. A log of the soils as exposed in the north side wall is presented as **Figure 7**. The soils exposed in the side wall consisted of predominantly sandy lean clay and fat clay soils with moderate to high plasticity.

The Unified Soil Classification System was used to log soil samples as summarized in **Figure 8**.

## **GROUNDWATER**

The depth of groundwater was not determined during our investigation. We anticipate that ground water may be present at depths greater than approximately 15 to 18 feet below the curb and gutter elevation, the depth of the exposed soil bank failure. The creek ordinary water elevation is approximately 32 feet below the curb and gutter elevation. Ground water elevation is expected to be located in the zone between 15 feet and 30 feet below the curb and gutter elevation.

## **LABORATORY SOILS TESTING**

Laboratory testing was performed on selected soil samples from the boreholes. Laboratory testing was performed in Questa's laboratory in general accordance with American Society for Testing and Materials (ASTM) standards for moisture content, dry density, Atterberg limits (ASTM D 4318), and particle size analysis (ASTM D 422).

### ***Moisture Content (ASTM D 2216)***

Moisture content testing was performed on soil samples collected from the side wall at the northeast corner of the slope failure. Results of moisture content testing are summarized on the side wall log (**Figure 6**). Soils in the upper 1.5 feet had a moisture content of 18 percent. Soils below 1.5 feet ranged from 25 to 28 percent moisture content.

### ***Atterberg Limits (ASTM D 4318- Liquid Limit, Plastic Limit and Plasticity Index)***

Atterberg limits tests have been performed on two soil samples from the Northwest side wall. Atterberg limits, expressed as the plastic limit and the liquid limit, are defined as the moisture content, in percent of a soil at defined boundaries between plastic and brittle states, and liquid and plastic states, respectively. The plasticity index is the range of moisture at which soil behaves plastically, defined numerically as the difference between the liquid and plastic limits. Atterberg limits are used as an aid in understanding soil properties such as compressibility, permeability, and expansion potential. Soils with medium to high plasticity indices are more susceptible to sliding and to losing soil strength as they absorb water. Results of Atterberg limits testing are summarized on the side wall log for NW-1 and in **Table 1** below. The results are also presented in **Figure 9**. Overall, soils at the site typically have medium to high plasticity, indicating a high likelihood of losing soil strength as they absorb moisture and expand.

***Table 1. Results of Atterberg Limits Testing***

Sample Number	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index	% Passing #200 Sieve
NW-1, 1.5-4 ft BGS	48	21	27	70.1
NW-1, 7- 8 ft BGS	50	19	31	83.8

### ***Particle Size Analysis***

Particle size analysis testing was performed in accordance with ASTM D 422. Results of testing of the Northeast side wall testing are presented on **Figures 10** and **11**.

## **SEISMICITY AND GEOLOGY**

### ***Regional Seismicity***

The project site is located within the Coast Ranges Geomorphic Province of California, a region of northwest trending ridges and valleys that stretches along much of the California Coast and is dissected by only a few structural depressions, the largest of which are San Francisco and San Pablo Bays. The ridges and valleys trend northwest to southeast due to fault geometry along the transform plate boundary between the North American and Pacific Plates. Scientists estimate as much as 5 to 6 centimeters (12 to 15 inches) of strain accumulates annually along the margin between the Pacific and North American Tectonic Plates. This strain is periodically released by fault slip that generates earthquakes along the San Andreas Fault System. For this reason the Bay Area is among the most

seismically active regions in the United States and there exists an approximately 72 percent chance of a major earthquake (Magnitude 6.7 or greater) in the San Francisco region within the next 30 years.<sup>1</sup>

***Faulting***

The nearest active fault trace in relation to the project site is the Hayward Fault, located approximately 2 miles to the southwest. Other nearby active faults include the San Andreas Fault located 18 miles southwest, the Rodgers Creek Fault 14 miles north, the Concord-Green Valley Fault located 12 miles northeast, and the Calaveras Fault 16 miles southeast.

**Table 2** presents a summary of the regional active faults that could impact the site. No faults zoned as active by the State of California Geological Survey cross the subject property. The risk of fault rupture is considered low. The project site is not located within an Alquist-Priolo Earthquake Fault Zone. The nearest Alquist-Priolo Earthquake Fault Zone is for the Hayward fault, 2 miles to the northeast<sup>2</sup>.

**Table 2. Regional Faults and Activity**

<b>FAULT NAME</b>	<b>Distance From Site (mi)</b>	<b>Direction From Site</b>	<b>Last Surface Rupture</b>	<b>Status</b>	<b>Maximum Moment Magnitude (Richter M)</b>
Hayward	2	Southwest	Historic	Active	6.9
San Andreas	18	Southwest	Historic	Active	7.9
Concord	12	Northeast	Historic	Active	6.5
Rodgers Creek	14	North	Holocene	Active	6.9
West Napa	15	Northeast	Holocene	Active	6.5
Green Valley	13	Northeast	Holocene	Active	6.6
Calaveras	16	Southeast	Holocene	Active	6.9
Seal Cove	30	Southwest	Holocene	Active	7.4
Greenville	32	Southeast	Historic	Active	7.3

***Site Geology***

A geologic map of the Richmond Quadrangle shows the site as being underlain by the Orinda Formation, a mixture of weakly indurated claystone, siltstone, sandstone and conglomerate. In the project site area the Orinda Formation is predominantly claystone and siltstone with fine gravel. **Figure 12** presents a Geologic Map of the area prepared by Dibblee and Minch (2005)<sup>3</sup>.

Bedrock geology is shown on the *Preliminary Geologic Map emphasizing bedrock formations in Contra Costa County, California*<sup>4</sup>. This map indicates that the site is underlain by bedrock consisting

<sup>1</sup> Field, E.H., and 2014 Working Group on California Earthquake Probabilities, 2015, UCERF3: A new earthquake forecast for California’s complex fault system: U.S. Geological Survey 2015–3009, 6 p.

<sup>2</sup> California Geological Survey, 2010, Fault Activity Map of California, Geologic Data Map No. 6.

<sup>3</sup> Dibblee, T.W. and Minch, J.A., 2005, Geologic map of the Richmond quadrangle, Contra Costa & Alameda Counties, California, Dibblee Geological Foundation, Dibblee Foundation Map DF-147, 1:24,000.

<sup>4</sup> United States Geological Survey, 1994, Preliminary Geologic Map Emphasizing Bedrock Formations in Contra Costa County, California, Open File Report 94-622.

of Tertiary age sedimentary rocks including conglomerate, sandstone and siltstone. This mapping was also used in a later geologic map of the San Francisco Bay region<sup>5</sup>.

The Orinda Formation is part of the Contra Costa Group, which includes late Miocene to Pliocene bedrock formations such as the Orinda Formation, the Moraga Formation, the Siesta Formation, and the Mulholland Formation, among others. The Contra Costa Group includes terrigenous sediments, stream deposits, lacustrine deposits and volcanic rocks<sup>6</sup>.

Previous investigations performed by Questa Engineering for nearby sites found the Orinda Formation present in the subsurface underlying Valley View Road nearby to the east of De Anza High School<sup>7</sup>. The Orinda Formation was found to consist of Olive Yellow and Light Olive Brown Silty Claystone which was moderately weathered, friable, with low hardness. The decomposed bedrock was generally found to consist of light yellow brown sandy fat clay. These descriptions match the soils and bedrock exposed in the site slopes and in the creek bed.

## SLOPE STABILITY

A landslide and slope stability map prepared by Tor Nilsen<sup>8</sup> of the US Geological Survey (1973) mapped the site at the edge of a potentially large landslide which would include Salvino Court and adjacent areas (**Figure 13**). Other geologic maps of the area do not show this large landslide, but based on observations of this site and the site vicinity, it seems likely that the mapping by Nilsen is correct and a large landslide is present beneath the area. This landslide likely includes portions of the underlying bedrock, the Orinda Formation (Contra Costa Group), which is a weakly-indurated relatively low strength, sedimentary formation. Deep seated landslides such as these were formed during portions of the Pleistocene when higher rainfall was experienced in the region. The deep-seated landslides are generally dormant, until modifications in the environment or grading in the area expose the instabilities. A contemporary slope stability map of the area included in the map prepared by the California Division of Mines and Geology (now the California Geological Survey) in 1973<sup>9</sup>, did not include detailed mapping in the El Sobrante area to the northeast of San Pablo Dam Road. At the time, the project area was not part of the City of Richmond, but was in unincorporated Contra Costa County. The limited slope stability mapping completed by the State at the time did not show the site or site vicinity as being in a landslide area.

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<sup>5</sup> Graymer, R.W., Moring, B.C., Saucedo, G.J., Wentworth, C.M., Brabb, E.E., and Knudsen, K.L., 2006, Geologic map of the San Francisco Bay region, U.S. Geological Survey, Scientific Investigations Map SIM-2918, 1:275,000.

<sup>6</sup> Creely, S., Savage, D.E., and Ogle, B.A., 1982, Stratigraphy of Upper Tertiary Nonmarine rocks of central Contra Costa Basin, California, in Ingersoll, R.V., ed., Cenozoic Nonmarine deposits of California and Arizona: Pacific Section, Society of Economic Paleontologists and Mineralogists, p. 11–22

<sup>7</sup> Questa Engineering Corporation, 2001, Final Geotechnical Investigation Report for Valley View Road Pavement Rehabilitation Project, Richmond, California, prepared for the City of Richmond Engineering Division.

<sup>8</sup> United States Geological Survey, 1973, Preliminary Photointerpretation Map of Landslide and Other Surficial Deposits of the Concord 15-minute Quadrangle and the Oakland West, Richmond, and Part of the San Quentin 7 1/2-minute Quadrangles, Contra Costa and Alameda Counties, California, Map MF-493.

<sup>9</sup> California Division of Mines and Geology, 1973, Geological and Geophysical Investigations for Tri-Cities Seismic Safety and Environmental Resources Study, Preliminary Report 19, Plate 6- Landslide Map

## **AERIAL PHOTOGRAPH REVIEW**

We reviewed aerial photographs available on Google Earth Pro. The photographs available range in age from 1939 to July of 2022. In 1939, the site is mostly grass land covered, and trees are limited to a smaller riparian area around Wilkie Creek. Large meander bends are present in the creek at the site area and apparent unstable slopes are common along the creek banks. The large meander bends in the creek are located in the same area as they are today at the landslide toe at the creek.

Aerial photograph from July 1993 shows the site before the residence was constructed at 2929 Salvino Court. The area of the landslide is well vegetated with tree coverage. The residence location is clear of trees. By July of 2002, the residence had been constructed and most of the site is covered by tree canopy. In aerial photographs from 2002 to 2015, the slope area appears to be mostly covered by tree canopy and there are no visible instabilities. In October 2015, a large tree appears to be dead; this is likely the Pine tree stump still present at the edge of the slide failure. In aerial photographs from November, 2016, the tree has been removed (stump remains). In June of 2019, large areas of eroded soil appear to be present below the tree stump and the wooden fence separating private property from Santa Rita Road. The most recent aerial photograph is from July 10, 2022, and in this photograph the slope appears to be experiencing slope instabilities which extend upslope to approximately 20 feet from the curb at Santa Rita Road. Following these aerial photographs, the slide area has continued to expand and the failed bank is now located within 3 to 4 feet of the curb at the road. The fence is no longer present.

## **GEOTECHNICAL RECOMMENDATIONS**

Based on our site observations and results of our Geotechnical Evaluation of the site we recommend that Santa Rita Road be protected from slope failure by installation of a Drilled Soldier Pile Stitch Wall or Drilled Soldier Pile Lagging Wall. The two structures would use the same basic construction using 50-foot deep, 30-inch diameter drilled pier holes to install H-beams which would have poured concrete installed for support. A stitch wall would utilize arching between adjacent piles to retain soil and be backfilled with concrete to approximately 15 feet BGS and the upper section would be backfilled with CLSM, which could be excavated if needed to add lagging. A lagging wall would be backfilled with concrete up to approximately 15 feet BGS and wood lagging would be installed between piles to support the soil and concrete curb structure behind it. Based on current conditions at the area of the slope instability, it would appear that at least part of the wall will require wood lagging to support the soil behind the wall.

The sides of the slope failure adjacent to City of Richmond property along the north end of the slope failure will also require stabilization to reduce the potential for further failure. The steepest part close to the road could be stabilized by continuation of the Soldier Pile Wall. A potentially effective alternate method would be to plant the area with live willow stakes and other fast growing types of native vegetation. This type of planting can be done in the riparian habitat area without a permit. However, planting alone on the steep slopes may not be effective in long term stabilization.

The south side of the slope failure area, which is located on private property, is also subject to further slope failure. This area could also be stabilized by continuing the Soldier Pile Wall in that area. Planting with live willow stakes and other plant materials could also be an effective alternative method of stabilization.

The toe of the landslide at the creek, which is located on private property, continues to be unstable. As scouring of the soil occurs at the toe during high water events in the creek, the soils are undercut and slide into the void left by the scouring process. The long-term stabilization of the slide at the creek will likely require a rock revetment or similar structure to retain the soils up slope and provide protection from creek scour.

***Foundation Design Measures- Retaining Wall***

Cast-in-place drill holes should penetrate the surface soils consisting of organic-rich sandy clay and sandy clay soils and extend into the underlying formation consisting of silty claystone and other rocks within the Orinda Formation. Drilled cast-in-place concrete piers should be a minimum of 30 inches in diameter and should be designed to support vertical and uplift loads based on a skin friction of 500 psf in the clay soils and claystone bedrock, neglecting the upper three feet of soils. The recommended skin friction is for dead plus live loads and can be increased by 33 percent for total loads including wind or seismic forces. End bearing should be neglected due to the difficulty in cleaning out small diameter pier holes. Resistance to lateral loads should be based on passive pressures using an equivalent fluid weight of 250 pcf over a width of two pier diameters on the portion of the piers extending into firm supporting claystone.

***Retaining Wall Design Parameters***

Retaining walls at the site must be designed to resist lateral earth pressures plus additional lateral pressures that may be caused by surcharge loads such as heavy vehicles and equipment. Walls and shoring that are free to rotate should be designed for active lateral earth pressures. If walls or shoring are restrained by rigid elements to prevent rotation, then they should be designed for at-rest earth pressures. Retaining walls backfilled with sandy clay should be designed to resist lateral earth pressures due to an equivalent fluid having unit weight as shown in **Table 3**.

***TABLE 3. Retaining Wall Design Parameters Summary***

	Active Pressure (level backfill) pounds per cubic foot (pcf)	At-Rest Earth Pressure (level backfill) pcf	Passive Pressures Allowable pcf	Lateral Surcharge Load (H 20 loading) pounds per square foot (psf) for retaining walls adjacent to streets or parking areas
Sandy Clay Backfill	45	65	250	250

This wall is considered an emergency measure that is a temporary wall structure. The seismic conditions for a permanent structure should be determined by adding the pressures from earthquake

loading to active pressure on the retaining walls. All permanent walls greater than 6 feet in height should include seismic pressure. We recommend an incremental seismic pressure of  $29H$  in pounds per square foot (psf), where  $H$  is the height of the retaining wall in feet. The pressure distribution may be considered to be an inverted triangle with the maximum pressure at the top and zero on the bottom. The resultant of this force may be assumed to be located at  $1/3$  the height of the wall below the top of the wall. Unit weight of the retained soils is approximately 120 pcf.

### ***Fence Protection Measures***

Following wall installation, we recommend that a permanent fence be installed along the area adjacent to the wall to protect the public. A standard 6-foot high chain link fence should be adequate protection. A gate or other access point should be included in the fence.

### ***Guardrail***

A guardrail should be constructed between the retaining wall and the street to protect vehicles in the event of an accident. A guardrail should be designed and constructed in accordance with Caltrans Standard Specifications and Details.

## **CONCLUSIONS**

Provided that the site is properly prepared and the structures are designed and constructed as recommended, we estimate that normal post-construction settlement will be small, less than 1.0 inch. We estimate that differential settlements over a distance of 25 feet would be small, up to 0.5 inches. It is our opinion that the proposed construction will not adversely affect the site stability provided that our design recommendations are followed.

### ***Seismically Induced Settlement***

No potentially liquefiable sands are likely to be present in the location area. Sandy lean clay and fat clay soils were observed in the proposed construction area. Seismically induced settlement is unlikely to occur in this area.

### ***Seismically Induced Slope Failure***

Seismically induced landslides could occur in the future at the project site. The exposed side slopes in the slide area are very steep, ranging from 45 degrees to near vertical. In the event of earthquake induced strong ground shaking, these exposed slopes are likely to fail. Additional trees, vegetation and soil would likely fall into the failure area. The improvements located along Santa Rita Road would also be prone to failure including the curb and gutter, pavement, sanitary sewer lines, potable water lines and other utilities if present.

### ***Construction Services***

During construction we should observe installation of the site improvements including excavations and drilled pier construction. This will allow us to observe that subsurface conditions are as



anticipated and to make supplemental recommendations when needed. These services during construction should include:

- Site preparation and excavation work should be observed by Questa personnel.
- Drilled cast in place piers should be observed during drilling so that the soils penetrated can be logged and expected subsurface conditions verified.
- Backfill behind the retaining wall should be observed and tested.

## LIMITATIONS

This report is based on current subsurface investigation and field observations, laboratory testing and engineering analysis performed by our firm. The investigations were performed in accordance with present geotechnical and engineering geologic standards applicable to this project. In our opinion, the scope of services adequately supports the conclusions and recommendations presented. The findings are valid now, but should not be relied upon after three years without our review.

The recommendations of this report are based upon the assumption that the subsurface conditions do not deviate from those interpreted from the surface and subsurface data of this and previous investigations. If any variation or undesirable conditions are encountered during construction, or if the proposed construction differs from that planned at the present time, we should be notified so that supplemental recommendations can be given. The recommendations of this report are intended for the site described only, and must not be extended to adjacent areas.

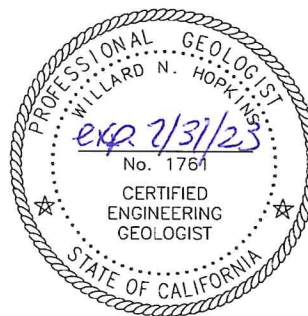
This report is issued with the understanding that it is the responsibility of the owner to ensure that contractors and subcontractors carry out the recommendations presented.

We trust that this is the information that you require at this time. Should you have any questions please contact the undersigned at (510) 236-6114.

Sincerely,



Willard N. Hopkins, PG #5161, CEG #1761  
Supervising Geologist



Norman N. Hantzsche, PE  
Principal/Managing Engineer



# **PHOTOGRAPHS**



Photograph 1. Landslide from Creek below on 2/5/2023. Photograph 2. Toe of slide at Wilkie Creek 2/5/2023



Photograph 3. South wall of landslide on 2/5/2023.

Photograph 4. South wall of slide on 2/5/2023.



Photograph 5. North wall of landslide on 2/5/2023.

Photograph 6. Down slope view of landslide on 2/5/2023.



Photograph 7. North & East areas of landslide 3/12/2023. Photograph 8. South area of landslide 3/12/2023.



Photographs 9 and 10. Landslide covered in plastic sheeting on 3/14/2023.



Photograph 11. Fence and Tree fall into slide on 3/30/2023. Photograph 12. Tree partially removed and slope recovered with plastic sheeting as seen on 4/10/2023.



Photograph 13. Slide adjacent to Santa Rita Rd on 5/24/23. Photograph 14. Site conditions on 5/24/23.



Photograph 15. Landslide at creek as of 5/24/23.

Photograph 16. Landslide at Santa Rita Rd as of 5/24/23.



Photograph 17. Cracking and offset curb & gutter 5/24/23.

# **FIGURES**



DATE:	4/24/2023
PROJECT:	Salvino Court
PROJECT NO.:	2200159
SOURCE:	Google Earth
APPROVED:	



**2929 Salvino Court at Santa Rita Rd  
Site Plan**

FIGURE  
**1**

# WILDCAT DYNAMIC CONE LOG

Questa Engineering  
 1220 Brickyard Cove Road, Suite 206  
 Richmond, CA 94806

## Figure 2

PROJECT NUMBER: 2200159  
 DATE STARTED: 03-31-2023  
 DATE COMPLETED: 03-31-2023

HOLE #: T-1  
 CREW: MWF, CJG  
 PROJECT: Salvino Ct Landslide  
 ADDRESS: 2929 Salvino Ct  
 LOCATION: El Sobrante, CA

SURFACE ELEVATION: 176 (approx. ft msl)  
 WATER ON COMPLETION: \_\_\_\_\_  
 HAMMER WEIGHT: 35 lbs.  
 CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm <sup>2</sup>	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
-	1	4.4	•				1	VERY LOOSE	VERY SOFT
-	3	13.3	•••				3	VERY LOOSE	SOFT
- 1 ft	3	13.3	•••				3	VERY LOOSE	SOFT
-	2	8.9	••				2	VERY LOOSE	SOFT
-	2	8.9	••				2	VERY LOOSE	SOFT
- 2 ft	3	13.3	•••				3	VERY LOOSE	SOFT
-	3	13.3	•••				3	VERY LOOSE	SOFT
-	5	22.2	•••••				6	LOOSE	MEDIUM STIFF
- 3 ft	7	31.1	•••••••				8	LOOSE	MEDIUM STIFF
- 1 m	5	22.2	•••••				6	LOOSE	MEDIUM STIFF
-	5	19.3	•••••				5	LOOSE	MEDIUM STIFF
- 4 ft	5	19.3	•••••				5	LOOSE	MEDIUM STIFF
-	5	19.3	•••••				5	LOOSE	MEDIUM STIFF
-	5	19.3	•••••				5	LOOSE	MEDIUM STIFF
- 5 ft	8	30.9	•••••••				8	LOOSE	MEDIUM STIFF
-	11	42.5	•••••••••				12	MEDIUM DENSE	STIFF
-	12	46.3	•••••••••				13	MEDIUM DENSE	STIFF
- 6 ft	8	30.9	•••••••				8	LOOSE	MEDIUM STIFF
-	7	27.0	•••••••				7	LOOSE	MEDIUM STIFF
- 2 m	11	42.5	•••••••••				12	MEDIUM DENSE	STIFF
- 7 ft	11	37.6	•••••••••				10	LOOSE	STIFF
-	23	78.7	•••••••••••••••••••				22	MEDIUM DENSE	VERY STIFF
-	18	61.6	•••••••••••••••				17	MEDIUM DENSE	VERY STIFF
- 8 ft	14	47.9	•••••••••••••••				13	MEDIUM DENSE	STIFF
-	14	47.9	••••~•••••••••••				13	MEDIUM DENSE	STIFF
-	12	41.0	•••••••••••••••				11	MEDIUM DENSE	STIFF
- 9 ft	10	34.2	•••••••••••••••				9	LOOSE	STIFF
-	10	34.2	••••~•••••••••••				9	LOOSE	STIFF
-	15	51.3	•••••••••••••••				14	MEDIUM DENSE	STIFF
- 3 m 10 ft	14	47.9	••••~••••••~•••••				13	MEDIUM DENSE	STIFF
-	8	24.5	••••~•••••••••••				6	LOOSE	MEDIUM STIFF
-	16	49.0	••••~••••••~•••••				13	MEDIUM DENSE	STIFF
-	15	45.9	••••~••••~••••~•••				13	MEDIUM DENSE	STIFF
- 11 ft	18	55.1	••••~••••~••••~•••				15	MEDIUM DENSE	STIFF
-	14	42.8	••••~••••~••••~•••				12	MEDIUM DENSE	STIFF
-	12	36.7	••••~••••~••••~•••				10	LOOSE	STIFF
- 12 ft	12	36.7	••••~••••~••••~•••				10	LOOSE	STIFF
-	15	45.9	••••~••••~••••~•••				13	MEDIUM DENSE	STIFF
-	16	49.0	••••~••••~••••~•••				13	MEDIUM DENSE	STIFF
- 4 m 13 ft	27	82.6	••••~••••~••••~•••				23	MEDIUM DENSE	VERY STIFF



DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm <sup>2</sup>	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
-	22	60.9	.....				17	MEDIUM DENSE	VERY STIFF
-	29	80.3	.....				22	MEDIUM DENSE	VERY STIFF
- 14 ft	15	41.6	.....				11	MEDIUM DENSE	STIFF
-	13	36.0	.....				10	LOOSE	STIFF
-	21	58.2	.....				16	MEDIUM DENSE	VERY STIFF
- 15 ft	18	49.9	.....				14	MEDIUM DENSE	STIFF
-	21	58.2	.....				16	MEDIUM DENSE	VERY STIFF
-	19	52.6	.....				15	MEDIUM DENSE	STIFF
- 16 ft	16	44.3	.....				12	MEDIUM DENSE	STIFF
- 5 m	15	41.6	.....				11	MEDIUM DENSE	STIFF
-	14	35.6	.....				10	LOOSE	STIFF
- 17 ft	17	43.2	.....				12	MEDIUM DENSE	STIFF
-	18	45.7	.....				13	MEDIUM DENSE	STIFF
-									
- 18 ft									
-									
- 19 ft									
- 6 m									
- 20 ft									
-									
- 21 ft									
-									
- 22 ft									
- 7 m									
- 23 ft									
-									
- 24 ft									
-									
- 25 ft									
-									
- 26 ft									
- 8 m									
- 27 ft									
-									
- 28 ft									
-									
- 29 ft									
- 9 m									

**WILDCAT DYNAMIC CONE LOG**

Questa Engineering  
1220 Brickyard Cove Road  
Richmond, CA 94801

**Figure 3**

PROJECT NUMBER: 2200159  
DATE STARTED: 04-19-2023  
DATE COMPLETED: 04-19-2023  
SURFACE ELEVATION: 156 (approx. ft msl)  
WATER ON COMPLETION: No GW  
HAMMER WEIGHT: 35 lbs.  
CONE AREA: 10 sq. cm

HOLE #: T-2  
CREW: MWF, SAF, CJG  
PROJECT: Salvino Ct LS  
ADDRESS: 2929 Salvino Ct  
LOCATION: Richmond, Ca

DEPTH	BLOWS PER 10 cm (4")	RESISTANCE Kg/cm <sup>2</sup>	GRAPH OF CONE RESISTANCE 0 50 100 150	N'	TESTED CONSISTENCY		Absolute N'	Soil Description
					NON-COHESIVE	COHESIVE		
1 ft	1	4.4	•	1	VERY LOOSE	VERY SOFT	1	Sandy Clay, Wet, Landslide material
	0	0.0		0	VERY LOOSE	VERY SOFT	0	
	0	0.0		0	VERY LOOSE	VERY SOFT	0	
	2	8.9	**	2	VERY LOOSE	SOFT	2	
2 ft	0	0.0		0	VERY LOOSE	VERY SOFT	0	
	0	0.0		0	VERY LOOSE	VERY SOFT	0	
	0	0.0		0	VERY LOOSE	VERY SOFT	0	
3 ft	1	4.4	•	1	VERY LOOSE	VERY SOFT	1	
	0	0.0		0	VERY LOOSE	VERY SOFT	0	
	0	0.0		0	VERY LOOSE	VERY SOFT	0	
4 ft	0	0.0		0	VERY LOOSE	VERY SOFT	0	
	10	38.6	.....	11	MEDIUM DENSE	STIFF	11	
	6	23.2	.....	6	LOOSE	MEDIUM STIFF	6	
5 ft	7	27.0	.....	7	LOOSE	MEDIUM STIFF	7	Native soil
	10	38.6	.....	11	MEDIUM DENSE	STIFF	11	
	13	50.2	.....	14	MEDIUM DENSE	STIFF	14	
6 ft	14	54.0	.....	15	MEDIUM DENSE	STIFF	15	
	20	77.2	.....	22	MEDIUM DENSE	VERY STIFF	22	
	18	69.5	.....	19	MEDIUM DENSE	VERY STIFF	19	
7 ft	15	51.3	.....	14	MEDIUM DENSE	STIFF	14	
	30	102.6	.....	25+	MEDIUM DENSE	VERY STIFF	29	
	24	82.1	.....	23	MEDIUM DENSE	VERY STIFF	23	
8 ft	19	65.0	.....	18	MEDIUM DENSE	VERY STIFF	18	
	20	68.4	.....	19	MEDIUM DENSE	VERY STIFF	19	
	44	150.5	.....	25+	DENSE	HARD	42	
9 ft								
10 ft								
11 ft								
12 ft								
13 ft								

# WILDCAT DYNAMIC CONE LOG

Questa Engineering  
1220 Brickyard Cove Road  
Richmond, CA 94801

**Figure 4**

PROJECT NUMBER:	2200159
DATE STARTED:	04-19-2023
DATE COMPLETED:	04-19-2023
SURFACE ELEVATION:	156 (approx. ft msl)
WATER ON COMPLETION:	No GW
HAMMER WEIGHT:	35 lbs.
CONE AREA:	10 sq. cm

HOLE #: T-3  
 CREW: MWF, SAF, CJG  
 PROJECT: Salvino Ct LS  
 ADDRESS: 2929 Salvino Ct  
 LOCATION: Richmond, Ca

DEPTH	BLOWS PER 10 cm (4")	RESISTANCE Kg/cm <sup>2</sup>	GRAPH OF CONE RESISTANCE				TESTED CONSISTENCY		Absolute N'	Soil Description	
			0	50	100	150	N'	NON-COHESIVE			COHESIVE
1 m	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	3	13.3	***				3	VERY LOOSE	SOFT	3	
	4	17.8	*****				5	LOOSE	MEDIUM STIFF	5	
4 ft	4	15.4	****				4	VERY LOOSE	SOFT	4	
	6	23.2	*****				6	LOOSE	MEDIUM STIFF	6	
5 ft	5	19.3	*****				5	LOOSE	MEDIUM STIFF	5	
	4	15.4	****				4	VERY LOOSE	SOFT	4	
6 ft	7	27.0	*****				7	LOOSE	MEDIUM STIFF	7	
	14	54.0	*****				15	MEDIUM DENSE	STIFF	15	
	20	77.2	*****				22	MEDIUM DENSE	VERY STIFF	22	
7 ft	21	81.1	*****				23	MEDIUM DENSE	VERY STIFF	23	
	20	77.2	*****				22	MEDIUM DENSE	VERY STIFF	22	
	45	173.7	*****				25+	DENSE	HARD	49	
8 ft											
9 ft											
10 ft											
11 ft											
12 ft											
13 ft											

Claystone

# WILDCAT DYNAMIC CONE LOG

Questa Engineering  
 1220 Brickyard Cove Road, Suite 206  
 Richmond, CA 94806

**Figure 5**

PROJECT NUMBER: 2200159  
 DATE STARTED: 04-19-2023  
 DATE COMPLETED: 04-19-2023

HOLE #: T-4  
 CREW: MWF, CJG, SAF  
 PROJECT: Salvino Ct Landslide  
 ADDRESS: 2929 Salvino Ct  
 LOCATION: El Sobrante, CA

SURFACE ELEVATION: 174 (approx. ft msl)  
 WATER ON COMPLETION: \_\_\_\_\_  
 HAMMER WEIGHT: 35 lbs.  
 CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm <sup>2</sup>	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
-	1	4.4	•				1	VERY LOOSE	VERY SOFT
-	2	8.9	••				2	VERY LOOSE	SOFT
-	1 ft 5	22.2	•••••				6	LOOSE	MEDIUM STIFF
-	3	13.3	•••				3	VERY LOOSE	SOFT
-	5	22.2	•••••				6	LOOSE	MEDIUM STIFF
-	2 ft 3	13.3	•••				3	VERY LOOSE	SOFT
-	3	13.3	•••				3	VERY LOOSE	SOFT
-	5	22.2	•••••				6	LOOSE	MEDIUM STIFF
-	3 ft 4	17.8	•••••				5	LOOSE	MEDIUM STIFF
-	1 m 4	17.8	•••••				5	LOOSE	MEDIUM STIFF
-	5	19.3	•••••				5	LOOSE	MEDIUM STIFF
-	4 ft 6	23.2	•••••				6	LOOSE	MEDIUM STIFF
-	7	27.0	••••••				7	LOOSE	MEDIUM STIFF
-	6	23.2	•••••				6	LOOSE	MEDIUM STIFF
-	5 ft 7	27.0	••••••				7	LOOSE	MEDIUM STIFF
-	6	23.2	•••••				6	LOOSE	MEDIUM STIFF
-	9	34.7	••••••••				9	LOOSE	STIFF
-	6 ft 9	34.7	••••••••				9	LOOSE	STIFF
-	12	46.3	••••••••••				13	MEDIUM DENSE	STIFF
-	2 m 11	42.5	••••••••••				12	MEDIUM DENSE	STIFF
-	7 ft 9	30.8	•••••••				8	LOOSE	MEDIUM STIFF
-	7	23.9	••••••				6	LOOSE	MEDIUM STIFF
-	6	20.5	••••••				5	LOOSE	MEDIUM STIFF
-	8 ft 7	23.9	••••••				6	LOOSE	MEDIUM STIFF
-	7	23.9	••••••				6	LOOSE	MEDIUM STIFF
-	7	23.9	••••••				6	LOOSE	MEDIUM STIFF
-	9 ft 7	23.9	••••••				6	LOOSE	MEDIUM STIFF
-	10	34.2	••••••••				9	LOOSE	STIFF
-	12	41.0	••••••••••				11	MEDIUM DENSE	STIFF
-	3 m 10 ft 11	37.6	••••••••••				10	LOOSE	STIFF
-	12	36.7	••••••••••				10	LOOSE	STIFF
-	9	27.5	•••••••				7	LOOSE	MEDIUM STIFF
-	10	30.6	••••••••				8	LOOSE	MEDIUM STIFF
-	11 ft 14	42.8	••••••••••				12	MEDIUM DENSE	STIFF
-	20	61.2	••••••••••••				17	MEDIUM DENSE	VERY STIFF
-	21	64.3	•••••••••••••				18	MEDIUM DENSE	VERY STIFF
-	12 ft 11	33.7	••••••••				9	LOOSE	STIFF
-	14	42.8	••••••••••				12	MEDIUM DENSE	STIFF
-	12	36.7	••••••••				10	LOOSE	STIFF
-	4 m 13 ft 10	30.6	••••••••				8	LOOSE	MEDIUM STIFF



**WILDCAT DYNAMIC CONE LOG**

**Figure 6**

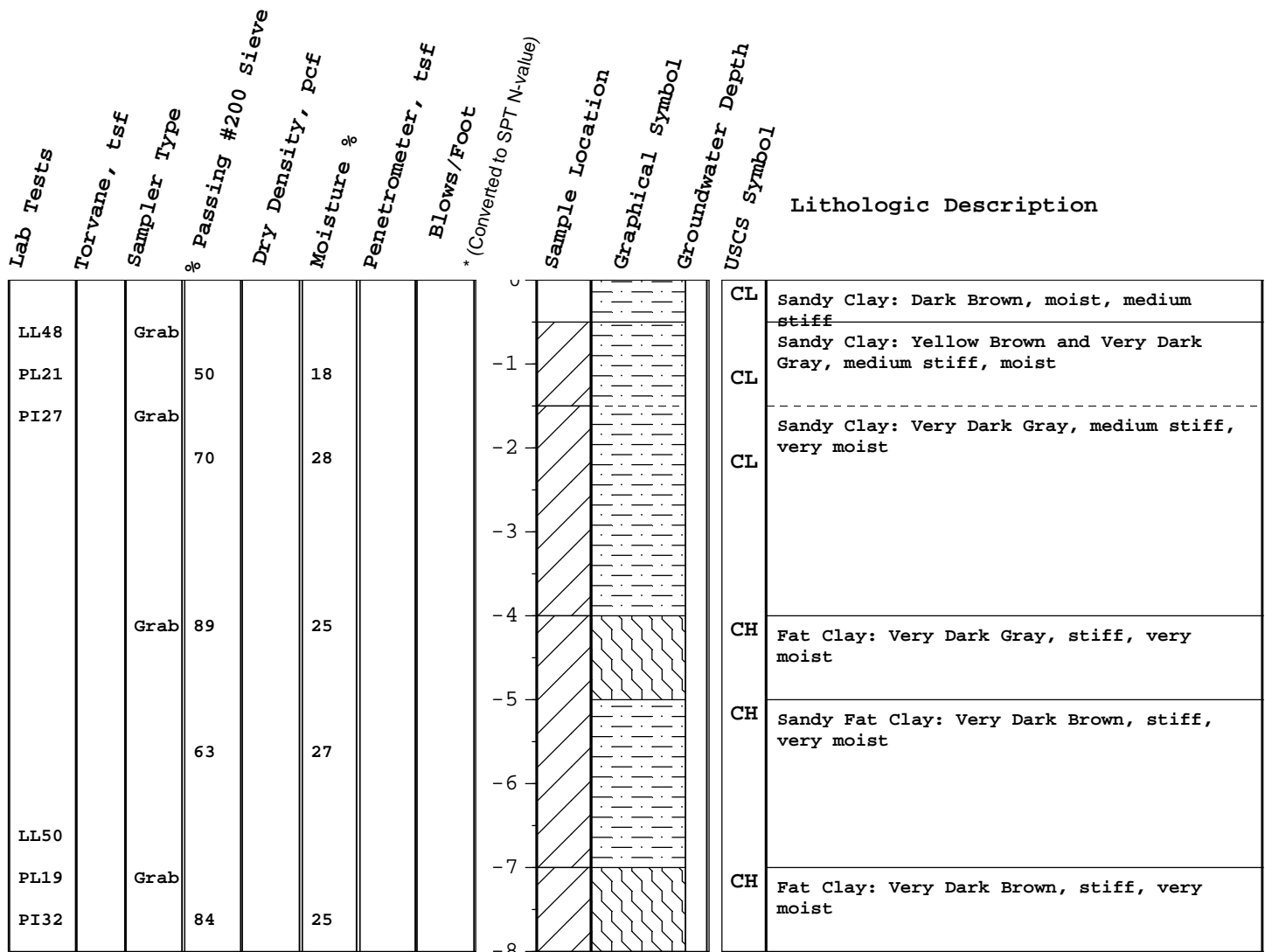
Questa Engineering  
1220 Brickyard Cove Road  
Richmond, CA 94801

PROJECT NUMBER: 2200159  
DATE STARTED: 04-19-2023  
DATE COMPLETED: 04-19-2023  
SURFACE ELEVATION: 159 (approx ft msl)  
WATER ON COMPLETION: No GW  
HAMMER WEIGHT: 35 lbs.  
CONE AREA: 10 sq. cm

HOLE #: T-5  
CREW: MWF, SAF, CJG  
PROJECT: Salvino Ct LS  
ADDRESS: 2929 Salvino Ct  
LOCATION: Richmond, Ca

DEPTH	BLOWS PER 10 cm (4")	RESISTANCE Kg/cm <sup>2</sup>	GRAPH OF CONE RESISTANCE				TESTED CONSISTENCY		Absolute N'	Soil Description	
			0	50	100	150	N'	NON-COHESIVE			COHESIVE
-	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
1 ft	1	4.4	*				1	VERY LOOSE	VERY SOFT	1	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
2 ft	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
3 ft	1	4.4	*				1	VERY LOOSE	VERY SOFT	1	
	0	0.0					0	VERY LOOSE	VERY SOFT	0	
	6	26.6	*****				7	LOOSE	MEDIUM STIFF	7	
4 ft	6	23.2	*****				6	LOOSE	MEDIUM STIFF	6	
	7	27.0	*****				7	LOOSE	MEDIUM STIFF	7	
5 ft	8	30.9	*****				8	LOOSE	MEDIUM STIFF	8	
	7	27.0	*****				7	LOOSE	MEDIUM STIFF	7	
6 ft	8	30.9	*****				8	LOOSE	MEDIUM STIFF	8	
	10	38.6	*****				11	MEDIUM DENSE	STIFF	11	
	13	50.2	*****				14	MEDIUM DENSE	STIFF	14	
7 ft	27	104.2	*****				25+	MEDIUM DENSE	VERY STIFF	29	
	50	193.0	*****				25+	VERY DENSE	HARD	55	
8 ft											
9 ft											
10 ft											
11 ft											
12 ft											
13 ft											

Claystone



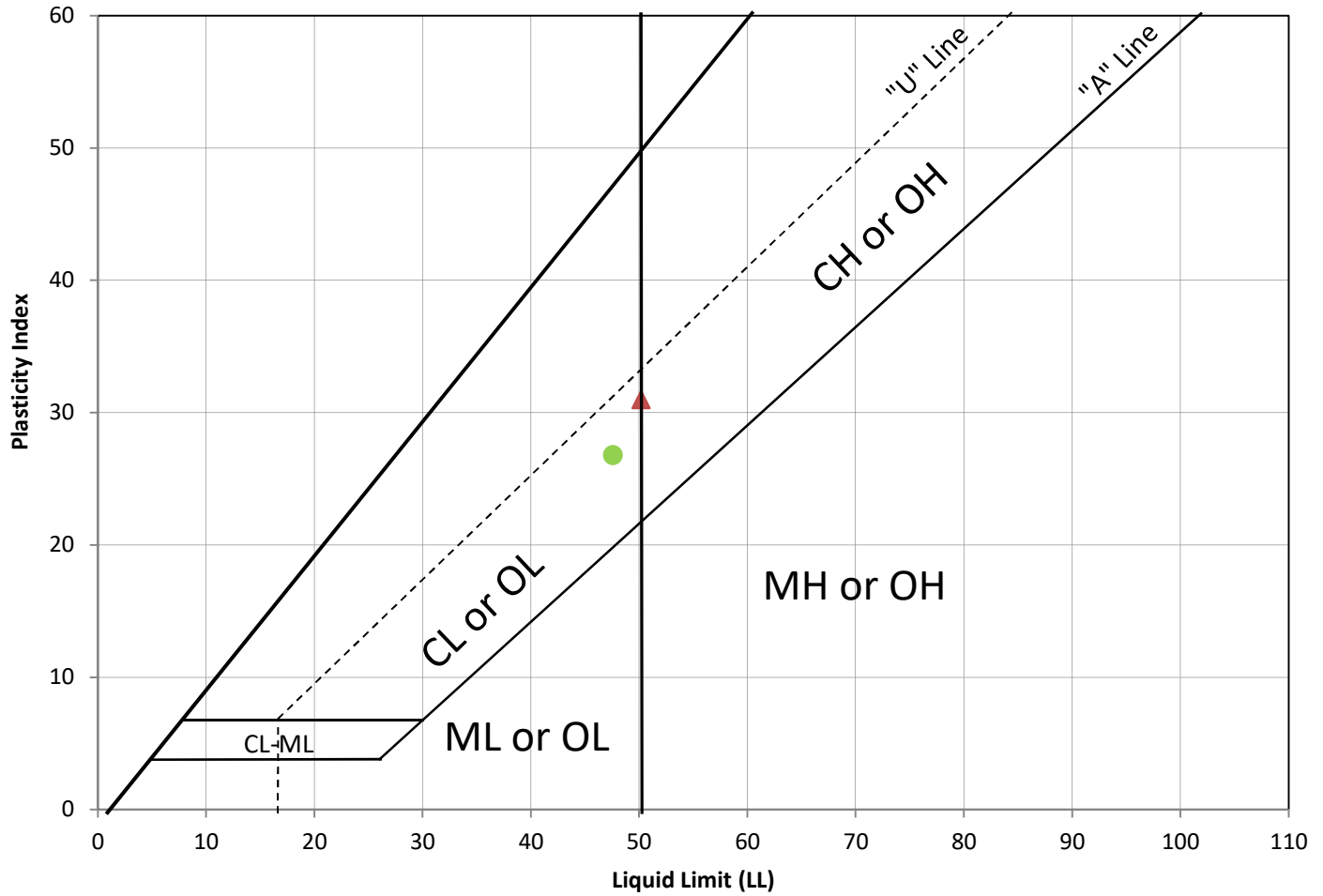
MAJOR DIVISION				TYPICAL NAMES		
<b>COARSE GRAINED SOILS</b> MORE THAN HALF IS LARGER THAN #200 SIEVE	<b>GRAVELS</b>  MORE THAN HALF COARSE FRACTION IS LARGER THAN #4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		Well graded Gravels, Gravel-Sand mixtures	
			GP		Poorly graded Gravels, Gravel-Sand mixtures	
		GRAVELS WITH OVER 12% FINES	GM		Silty Gravels, poorly graded, Gravel-Sand-Silt mixtures	
			GC		Clayey Gravels, poorly graded Gravel-Sand-Clay mixtures	
	<b>SANDS</b>  MORE THAN HALF COARSE FRACTION IS LARGER THAN #4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		Well graded Sands, Gravelly-Sands	
			SP		Poorly graded Sands, Gravelly-Sands	
		SANDS WITH OVER 12% FINES	SM		Silty Sands, poorly graded, Sand-Silt mixtures	
			SC		Clayey Sands, poorly graded, Sand-Clay mixtures	
	<b>FINE GRAINED SOILS</b> MORE THAN HALF IS SMALLER THAN #200 SIEVE	<b>SILTS AND CLAYS</b>  LIQUID LIMIT LESS THAN 50		ML		Inorganic Silts and very fine Sands, rock flour, Silty or Clayey fine Sands, or Clayey-Silts with slight plasticity
				CL		Inorganic Clays of low to medium plasticity, Gravelly Clays, Sandy Clays, Silty Clays, lean Clays
OL					Organic Clays and Organic Silty Clays of low plasticity	
<b>SILTS AND CLAYS</b>  LIQUID LIMIT GREATER THAN 50		MH		Inorganic Silts, micaceous or diatomaceous fine Sandy or Silty Soils, elastic Silts		
		CH		Inorganic Clays of high plasticity, fat Clays		
		OH		Organic Clays of medium to high plasticity, organic Silts		
<b>HIGHLY ORGANIC SOILS</b>			Pt		Peat and other highly organic soils	

BOH	Bottom of hole		
GRAB	Hand Sampling Equipment used to collect samples		
		LL, PL, PI	Liquid Limit, Plastic Limit, Plasticity Index


Questa Engineering Corporation P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807 Phone: (510) 236-6114 FAX: (510) 236-2423	<b>UNIFIED SOIL CLASSIFICATION SYSTEM                  AND KEY TO ABBREVIATIONS</b>	FIGURE <b>8</b>
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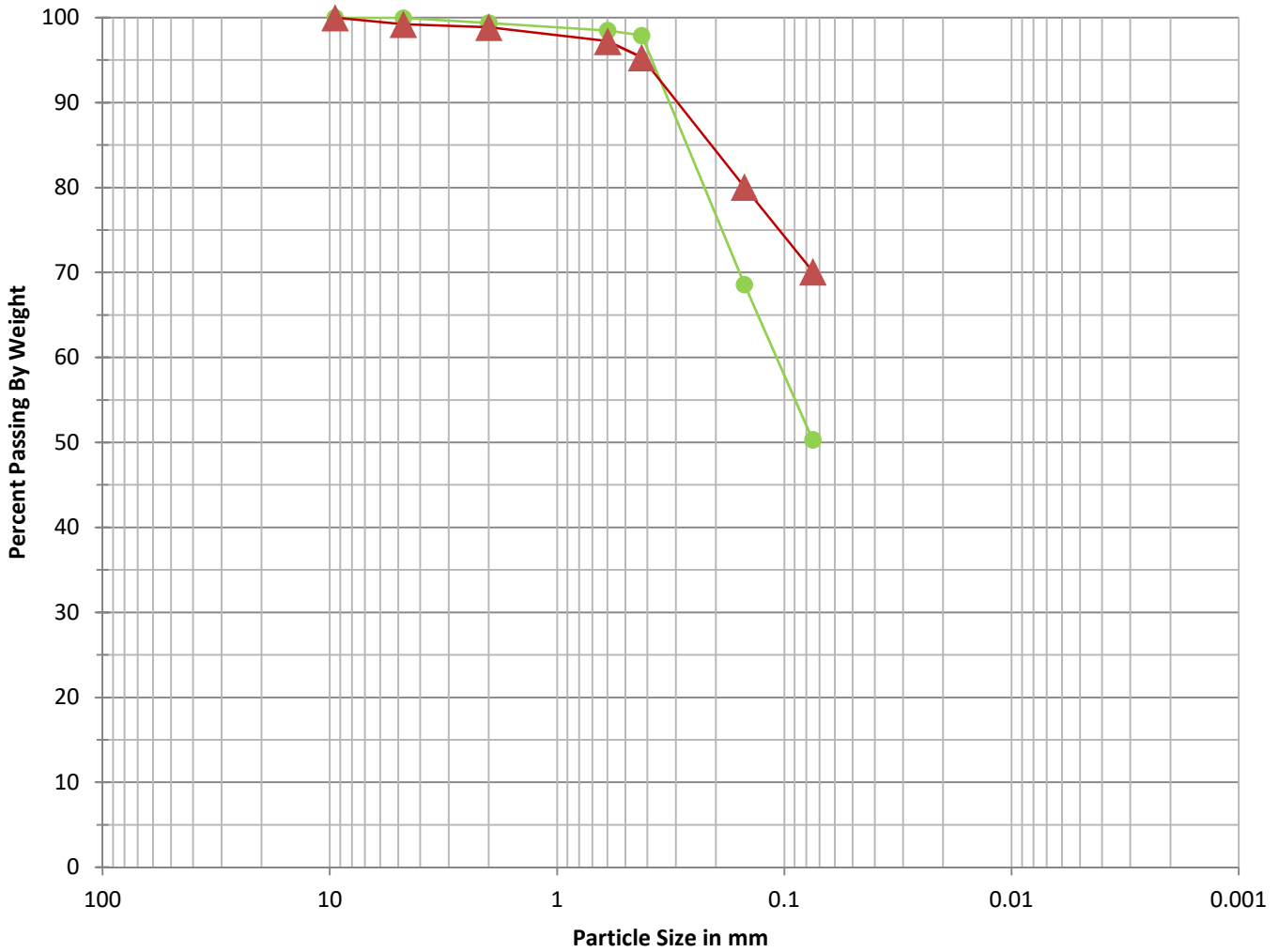
## Atterberg Limits



Symbol	Classification & Source	Liquid Limit	Plastic Limit	Plasticity Index	% Passing #200 Sieve
●	Yellow brown & dark gray sandy lean clay (CL), NW-1 1.5-4 ft	48	21	27	70.1
▲	Very dark brown fat clay/lean clay (CH-CL), NW-1 7-8 ft	50	19	31	83.8
■					

 <p><b>QUESTA</b> ENGINEERING CORP.</p> <p><i>Civil Environmental &amp; Water Resources</i></p> <p><small>(510) 236-6114 FAX (510) 236-2423 questa@questaec.com</small></p> <p><small>P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807</small></p>	<b>Atterberg Limits (ASTM D4318)</b>	<b>Figure</b>
	Salvino Court/Santa Rita Road 2929 Salvino Court at Santa Rita Road, El Sobrante, CA	<b>9</b>

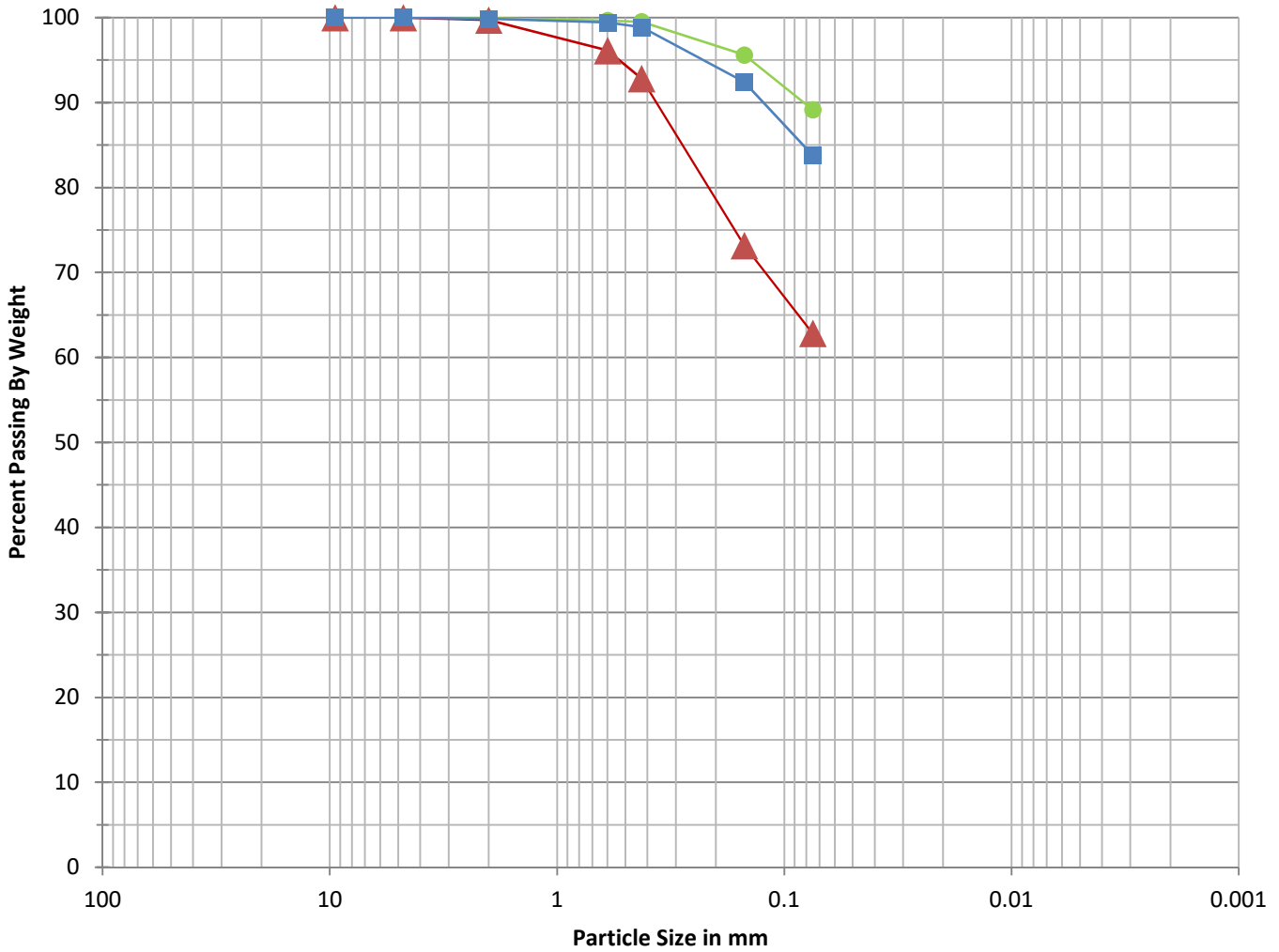
# Particle Size Analysis



Gravel		Sand			Silt	Clay
Coarse	Fine	Coarse	Medium	Fine		

Symbol	Source
● (Green)	NW-1, 0.5-1.5'
▲ (Red)	NW-1, 1.5-4'
■ (Blue)	

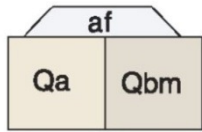
# Particle Size Analysis



Gravel		Sand			Silt	Clay
Coarse	Fine	Coarse	Medium	Fine		

Symbol	Source
●	NW-1, 4-5'
▲	NW-1, 5-7'
■	NW-1, 7-8'

**LEGEND**

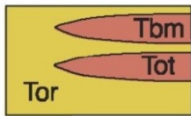


**SURFICIAL DEPOSITS**

Af – manmade artificial fill for dam

Qa – Alluvial gravel, sand and clay of valley areas

Qbm – Bay mud



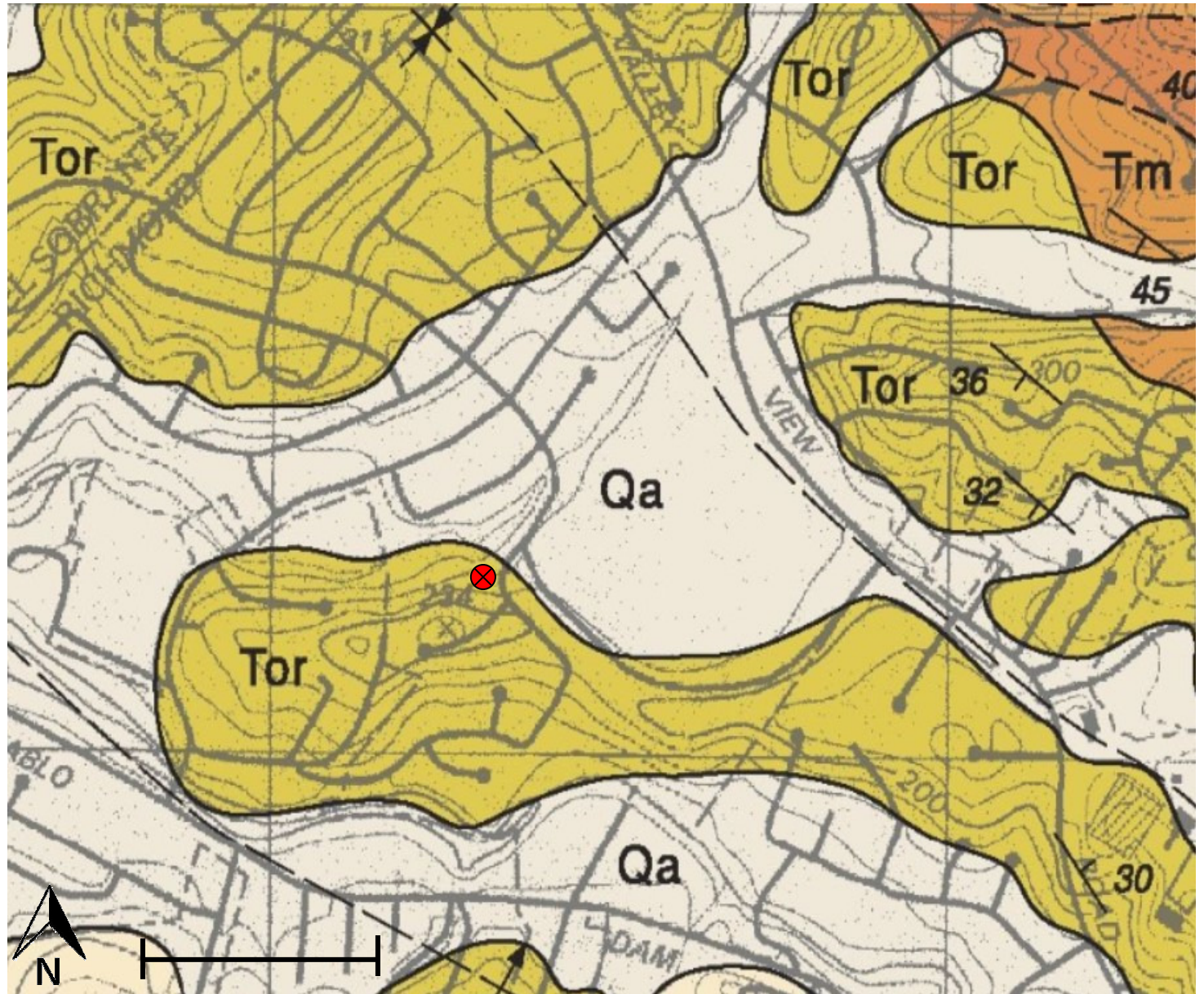
**ORINDA FORMATION**

Tor – Terrestrial pebble conglomerate, sandstone and claystone, interbedded, gray to greenish gray; includes volcanic rocks in lower part, as follows:

Tbm – Moraga Basalt, black, fine grained, massive, locally vesicular

Tot – Tuff- breccias, gray-white, rhyolitic, massive to vaguely bedded

Site location =



DATE:	4/24/2023
PROJECT:	Salvino Court
PROJECT NO.:	2200159
SOURCE:	Geologic Map of the Richmond Quadrangle Thomas W. Dibblee Jr. (2005)



**Geologic Map**  
**2929 Salvino Ct at Santa Rita Rd**  
**El Sobrante, CA**

FIGURE

**12**

**LEGEND**

Qaf

Artificial fill

Highway, railroad and canal fills composed of rock and surficial deposits derived from nearby cuts or quarries; only large fill areas are shown on the map.


Qal

Alluvial deposits

Irregularly stratified, poorly consolidated deposits of mud, silt, sand, and gravel deposited in stream and river beds and on adjoining flood plains. Alluvial deposits less than about 200 feet wide, common along smaller streams, generally have not been mapped; where colluvial deposits are adjacent to such narrow strips, the alluvial deposits have been included within them. Includes older and younger alluvial fan deposits that form broad, extensive, gently sloping surfaces composed of coalesced large alluvial fans that border upland areas. Deposition is continuing on the younger parts of these fan complexes as well as in the major alluvial channels that cut across the fan surfaces.



Landslide deposit approximately 200-500 feet in longest dimension. Queried where identification uncertain. Arrow indicates general direction of downslope movement and is positioned over location of deposit.

Site location = 



DATE:	4/24/2023
PROJECT:	Salvino Court
PROJECT NO.:	2200159
SOURCE:	Map of landslide and other surficial deposits of the Concord 15-minute Quadrangle, Tor H. Nilsen (1973).



**Landslide Map**  
**2929 Salvino Ct at Santa Rita Rd**  
**El Sobrante, CA**

FIGURE

**13**